

# A12 Chelmsford to A120 widening scheme

TR010060

## 9.24 Applicant's Comments on Written Representations

Rule 8(1)(c)(i)  
Planning Act 2008  
Infrastructure Planning (Examination Procedure)  
Regulations 2010  
Volume 9

April 2023

Infrastructure Planning  
Planning Act 2008  
The Infrastructure Planning  
(Examination Procedure) Rules 2010

**A12 Chelmsford to A120 widening scheme**  
Development Consent Order 202[ ]

---

**Applicant's Comments on Written Representations**

---

<b>Regulation Number</b>	Rule 8(1)(c)(i)
<b>Planning Inspectorate Scheme Reference</b>	TR010060
<b>Application Document Reference</b>	TR010060/EXAM/9.24
<b>Author</b>	A12 Project Team and National Highways

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 1	9 March 2023	For Deadline 3
Rev 2	21 April 2023	Update to include Plates to REP2-051 and REP2-053

**CONTENTS**

**1 Introduction .....1**

**2 Applicant's Comments on Written Representations.....2**

**Andrew Watson.....2**

    REP2-036-001 .....2

    REP2-036-002 .....2

    REP2-036-003 .....3

    REP2-036-004 .....4

    REP2-036-005 .....6

    REP2-036-006 .....7

    REP2-036-007 .....8

    REP2-036-008 .....9

    REP2-036-009 .....9

    REP2-036-010 .....10

**Anglian Water.....12**

    REP2-037-001 .....12

    REP2-037-002 .....13

    REP2-037-003 .....13

    REP2-037-004 .....14

    REP2-037-005 .....15

**Boreham Conservation Society.....16**

    REP2-039-001 .....16

    REP2-039-002 .....18

    REP2-039-003 .....18

    REP2-039-004 .....24

    REP2-039-005 .....25

    REP2-039-006 .....28

    REP2-039-007 .....31

**Cadent Gas Limited .....35**

    REP2-042-001 .....35

    REP2-042-002 .....36

    REP2-042-003 .....37

REP2-042-004 .....	38
<b>Climate Emergency Planning and Policy .....</b>	<b>39</b>
REP2-044-001 .....	39
REP2-044-002 .....	39
REP2-044-003 .....	42
REP2-044-004 .....	43
REP2-044-005 .....	49
REP2-044-006 .....	50
REP2-044-007 .....	53
REP2-044-008 .....	53
REP2-044-009 .....	54
REP2-044-010 .....	55
REP2-044-011 .....	57
REP2-044-012 .....	59
REP2-044-013 .....	61
REP2-044-014 .....	63
REP2-044-015 .....	64
REP2-044-016 .....	64
REP2-044-017 .....	65
REP2-044-018 .....	66
REP2-044-019 .....	66
REP2-044-020 .....	67
REP2-044-021 .....	67
REP2-044-022 .....	68
REP2-044-023 .....	69
REP2-044-024 .....	71
REP2-044-025 .....	76
REP2-044-026 .....	77
REP2-044-027 .....	78
REP2-044-028 .....	80
REP2-044-029 .....	81

<b>DWD Property Planning on behalf of Countryside Zest (Beaulieu Park) LLP .....</b>	<b>82</b>
REP2-046-001 .....	82
<b>Gateley Legal on behalf of David and Stephen Bolton.....</b>	<b>85</b>
REP2-051-001 .....	85
REP2-051-002 .....	85
REP2-051-003 .....	87
REP2-051-004 .....	89
REP2-051-005 .....	93
REP2-051-006 .....	94
REP2-051-007 .....	94
REP2-051-008 .....	100
REP2-051-009 .....	100
REP2-051-010 .....	102
<b>Environment Agency.....</b>	<b>106</b>
REP2-053-001 .....	106
REP2-053-002 .....	107
REP2-053-003 .....	111
REP2-053-004 .....	113
REP2-053-005 .....	130
REP2-053-006 .....	131
REP2-053-007 .....	133
REP2-053-008 .....	134
REP2-053-009 .....	135
REP2-053-010 .....	136
REP2-053-011 .....	138
REP2-053-012 .....	138
REP2-053-013 .....	140
REP2-053-014 .....	142
REP2-053-015 .....	143
REP2-053-016 .....	144
REP2-053-017 .....	146
REP2-053-018 .....	147

Applicant's Comments on Written Representations

---

REP2-053-019 .....	148
REP2-053-020 .....	149
REP2-053-021 .....	150
REP2-053-022 .....	151
REP2-053-023 .....	153
REP2-053-024 .....	153
REP2-053-025 .....	156
REP2-053-026 .....	156
REP2-053-027 .....	157
REP2-053-028 .....	158
REP2-053-029 .....	159
REP2-053-030 .....	160
REP2-053-031 .....	161
REP2-053-032 .....	161
REP2-053-033 .....	162
REP2-053-034 .....	163
REP2-053-035 .....	164
REP2-053-036 .....	166
REP2-053-037 .....	167
REP2-053-038 .....	168
REP2-053-039 .....	170
<b>Essex Local Access Forum (ELAF).....</b>	<b>171</b>
REP2-058-001 .....	171
<b>Feering Parish Council.....</b>	<b>174</b>
REP2-059-001 .....	174
REP2-059-002 .....	175
REP2-059-003 .....	180
REP2-059-004 .....	181
REP2-059-005 .....	182
REP2-059-006 .....	182
<b>Historic England .....</b>	<b>183</b>
REP2-060-001 .....	183

Applicant's Comments on Written Representations

---

REP2-060-002 .....	185
REP2-060-003 .....	186
REP2-060-004 .....	188
REP2-060-005 .....	189
REP2-060-006 .....	190
REP2-060-007 .....	194
REP2-060-008 .....	201
REP2-060-009 .....	203
REP2-060-010 .....	205
REP2-060-011 .....	208
REP2-060-012 .....	209
REP2-060-013 .....	211
REP2-060-014 .....	219
<b>Keith Lomax .....</b>	<b>220</b>
REP2-062-001 .....	220
REP2-062-002 .....	221
REP2-062-003 .....	222
REP2-062-004 .....	222
REP2-062-005 .....	223
REP2-062-006 .....	224
<b>CMS LLP on behalf of Legal &amp; General Investment Management Limited .....</b>	<b>224</b>
REP2-064-001 .....	224
REP2-064-002 .....	225
REP2-064-003 .....	227
REP2-064-004 .....	228
<b>Little Braxted Parish Council .....</b>	<b>228</b>
REP2-065-001 .....	228
REP2-065-002 .....	229
<b>Lynfield Properties Ltd .....</b>	<b>231</b>
REP2-066-001 .....	231
REP2-066-002 .....	231
REP2-066-003 .....	232

<b>Mr Mark David Cathcart.....</b>	<b>233</b>
REP2-069-001 .....	233
REP2-069-002 .....	235
REP2-069-003 .....	239
REP2-069-004 .....	243
REP2-069-005 .....	245
REP2-069-006 .....	247
REP2-069-007 .....	252
REP2-069-008 .....	255
REP2-069-009 .....	256
REP2-069-010 .....	256
REP2-069-011 .....	257
REP2-069-012 .....	258
REP2-069-013 .....	264
<b>Mary Ann Lindsay.....</b>	<b>265</b>
REP2-077-001 .....	265
<b>Ashfords LLP on behalf of Messing and Inworth Action Ground Limited.....</b>	<b>265</b>
REP2-084-001 .....	265
REP2-084-002 .....	266
REP2-084-003 .....	266
REP2-084-004 .....	267
REP2-084-005 .....	270
REP2-084-006 .....	270
REP2-084-007 .....	271
REP2-084-008 .....	272
REP2-084-009 .....	273
REP2-084-010 .....	273
<b>Messing and Inworth Action Ground Limited .....</b>	<b>274</b>
REP2-085-001 .....	274
REP2-085-002 .....	276
REP2-085-003 .....	277
REP2-085-004 .....	278



Applicant's Comments on Written Representations

---

REP2-085-005 .....	281
REP2-085-006 .....	283
REP2-085-007 .....	286
REP2-085-008 .....	287
REP2-085-009 .....	288
REP2-085-010 .....	290
REP2-085-011 .....	291
REP2-085-012 .....	292
REP2-085-013 .....	294
REP2-085-014 .....	296
REP2-085-015 .....	298
REP2-085-016 .....	300
REP2-085-017 .....	301
REP2-085-018 .....	302
REP2-085-019 .....	302
REP2-085-020 .....	303
REP2-085-021 .....	305
REP2-085-022 .....	306
REP2-085-023 .....	308
REP2-085-024 .....	309
REP2-085-025 .....	309
REP2-085-026 .....	310
REP2-085-027 .....	312
REP2-085-028 .....	313
REP2-085-029 .....	315
REP2-085-030 .....	316
REP2-085-031 .....	317
REP2-085-032 .....	317
<b>Messing and Inworth Action Ground Limited .....</b>	<b>317</b>
REP2-086-001 .....	317
<b>Messing and Inworth Action Ground Limited .....</b>	<b>318</b>

REP2-087-001 .....	318
<b>National Grid .....</b>	<b>319</b>
REP2-090-001 .....	319
<b>Natural England .....</b>	<b>319</b>
REP2-091-001 .....	319
REP2-091-002 .....	320
REP2-091-003 .....	320
REP2-091-004 .....	321
REP2-091-005 .....	328
REP2-091-006 .....	330
REP2-091-007 .....	330
REP2-091-008 .....	331
REP2-091-009 .....	332
REP2-091-010 .....	333
REP2-091-011 .....	333
REP2-091-012 .....	335
REP2-091-013 .....	336
REP2-091-014 .....	340
REP2-091-015 .....	340
REP2-091-016 .....	341
REP2-091-017 .....	342
REP2-091-018 .....	343
<b>Addleshaw Goddard on behalf of Network Rail Infrastructure Limited .....</b>	<b>343</b>
REP2-092-001 .....	343
REP2-092-002 .....	344
REP2-092-003 .....	345
REP2-092-004 .....	345
REP2-092-005 .....	346
REP2-092-006 .....	347
REP2-092-007 .....	348
<b>Oliver Lukies of Strutt &amp; Parker on behalf of Gary and Victoria Woods .....</b>	<b>349</b>
REP2-093-001 .....	349

<b>Oliver Lukies of Strutt &amp; Parker on behalf of Mr Gerrard and Mrs Jayne Bibbey ....</b>	<b>350</b>
REP2-094-001 .....	350
REP2-094-002 .....	350
REP2-094-003 .....	351
REP2-094-004 .....	352
REP2-094-005 .....	353
REP2-094-006 .....	353
REP2-094-007 .....	354
<b>Pegasus (Prested) Investments Limited group.....</b>	<b>355</b>
REP2-096-001 .....	355
REP2-096-002 .....	355
REP2-096-003 .....	358
<b>Pinsent Masons LLP on behalf of Edmundson Electrical Limited .....</b>	<b>360</b>
REP2-099-001 .....	360
REP2-099-002 .....	360
REP2-099-003 .....	361
REP2-099-004 .....	363
REP2-099-005 .....	364
REP2-099-006 .....	365
REP2-099-007 .....	365
REP2-099-008 .....	367
REP2-099-009 .....	368
REP2-099-010 .....	369
<b>Pinsent Masons LLP on behalf of Royal London UK Real Estate Fund.....</b>	<b>370</b>
REP2-100-001 .....	370
REP2-100-002 .....	371
REP2-100-003 .....	371
REP2-100-004 .....	372
REP2-100-005 .....	374
REP2-100-006 .....	374
REP2-100-007 .....	375
<b>Roger Wacey .....</b>	<b>376</b>

REP2-101-001 .....	376
REP2-101-002 .....	377
<b>BNP Paribas Real Estate on behalf of Royal Mail Group .....</b>	<b>378</b>
REP2-104-001 .....	378
REP2-104-002 .....	380
REP2-104-003 .....	380
REP2-104-004 .....	381
REP2-104-005 .....	383
<b>Shoosmiths on behalf of Parker Strategic Land .....</b>	<b>384</b>
REP2-111-001 .....	384
REP2-111-002 .....	385
REP2-111-003 .....	386
REP2-111-004 .....	393
REP2-111-005 .....	397
REP2-111-006 .....	400
REP2-111-007 .....	401
<b>Strutt &amp; Parker on behalf of Mr N &amp; Mrs P Wright and Mr J &amp; Mrs S Ruggles.....</b>	<b>402</b>
REP2-117-001 .....	402
REP2-117-002 .....	403
REP2-117-003 .....	403
<b>Strutt &amp; Parker on behalf of Buchanan .....</b>	<b>404</b>
REP2-118-001 .....	404
<b>Terling and Fairstead Parish Council .....</b>	<b>406</b>
REP2-120-001 .....	406
<b>Terling and Fairstead Parish Council .....</b>	<b>407</b>
REP2-121-001 .....	407
REP2-121-002 .....	408
REP2-121-003 .....	408
REP2-121-004 .....	410
REP2-121-005 .....	411
REP2-121-006 .....	411
REP2-121-007 .....	413

REP2-121-008 .....	414
REP2-121-009 .....	414
REP2-121-010 .....	416
REP2-121-011 .....	417
<b>The landowners comprising the Gershwin Park Consortium.....</b>	<b>418</b>
REP2-123 and REP2-124-001 .....	418
<b>Tiptree Parish Council.....</b>	<b>420</b>
REP2-125-001 .....	420
REP2-125-002 .....	420
REP2-125-003 .....	420
REP2-125-004 .....	421
REP2-125-005 .....	421
<b>Tiptree Parish Council.....</b>	<b>422</b>
REP2-126-001 .....	422
<b>Ulting Overseas Trust on behalf of Ulting Overseas Trust .....</b>	<b>431</b>
REP2-128-001 .....	431
REP2-128-002 .....	432
<b>The West Family .....</b>	<b>433</b>
REP2-129-001 .....	433
REP2-129-002 .....	433
REP2-129-003 .....	434
REP2-129-004 .....	434
REP2-129-005 .....	435
REP2-129-006 .....	437
<b>Witham Town Council .....</b>	<b>438</b>
REP2-130-001 .....	438
REP2-130-002 .....	439
REP2-130-003 .....	442
REP2-130-004 .....	444
REP2-130-005 .....	445
REP2-130-006 .....	445
REP2-130-007 .....	446

Applicant's Comments on Written Representations

---

REP2-130-008 .....	448
REP2-130-009 .....	449
REP2-130-010 .....	449
REP2-130-011 .....	450
REP2-130-012 .....	451
<b>Woodland Trust .....</b>	<b>452</b>
REP2-131-001 .....	452
REP2-131-002 .....	453
REP2-131-003 .....	456
REP2-131-004 .....	457
REP2-131-005 .....	458
REP2-131-006 .....	459
REP2-131-007 .....	461
REP2-131-008 .....	464
REP2-131-009 .....	466
REP2-131-010 .....	467

# 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 Written Representations made by Interested Parties at Deadline 2 of the Examination.

## 2 Applicant's Comments on Written Representations

<b>Andrew Watson</b>	<b>REP2-036-001</b>
<b>Sub-Question</b>	
<p>Our home is a Grade II listed, 17c timber framed thatched cottage which we bought with the intention of restoring and preserving for future generations. It is a beautiful building that deserves to be looked after, however if National Highway's plan for Junction 24, which involves modifying the B1023 in Inworth, goes ahead, our house will be affected by the predicted volume of vehicles passing the property and the associated noise, vibration and air pollution.</p>	
<b>Applicant's Response</b>	
<p>The Applicant has assessed the impact of the scheme on the Interested Party's cottage and the potential changes in traffic along the B1023 to and from junction 24 and the associated traffic noise, vibration and air pollution. This is detailed in the Applicant's response can be found in National Highways Deadline 1 Submission to RR-075 within the Applicant's Response to Relevant Representations - Rev 2 [REP1-002].</p>	
<b>REP2-036-002</b>	
<b>Sub-Question</b>	
<p>We are aware that ours is one of a number of properties which will be affected by increased traffic noise (appendix A). This is no surprise as National Highway's plan involves making the B1023 through the village of Inworth, the most desirable route for accessing the A12 at junction 24 from Tiptree and outlying villages (appendix B).</p>	
<b>Applicant's Response</b>	



The Applicant can confirm that this property is predicted to experience a likely significant adverse noise effect, as explained within the Applicant's Response to Relevant Representations (RR-075-001) - Rev 2 [REP1-002]. This increase in noise is due to the predicted increase in traffic on Inworth Road.

The traffic figures quoted in Appendix B of the Interested Party's Written Representation [REP2-036] do not reflect the Applicant's predictions of the proposed scheme's traffic impacts.

A summary of the Applicant's predictions of traffic changes on the B1023 through Inworth due to the proposed scheme is provided in Transport Assessment - Appendix C: Traffic Flow Diagrams – Communities and A12 Mainline [APP-256]. Chapter C.3 of that document shows that traffic is predicted to increase by 42% (328 vehicles per hour) in the AM peak, and by 34% (286 vehicles per hour) in the PM peak.

**REP2-036-003**

### **Sub-Question**

Our house will potentially be subjected to vehicles of all sizes, at all hours of the day. A survey carried out by a local group in 2022, found that of an average of 1400 vehicles, at peak times, over half of the surveyed vehicles were larger than the average passenger car. 68% of that subgroup were a combination of diesel trucks, construction lorries, buses and 18 wheeled HGVs – all these vehicles generate considerably more noise and vibration than the average family car. The prospect of this situation becoming far worse in the future would be detrimental to our mental health and wellbeing.

### **Applicant's Response**

As part of the development of the proposed scheme's traffic model, traffic surveys were undertaken. These surveys complied with strict Department for Transport guidance on how traffic surveys should be undertaken, for example to take place over several days and avoiding holiday periods.

On the B1023 through Inworth, a traffic survey was undertaken in 2016. This showed that around 90% of the vehicles surveyed

during the morning and evening peak hours were cars.

The traffic model was used to predict future traffic levels with and without the proposed scheme in place. On the B1023 through Inworth, there is predicted to be an increase of 328 vehicles per hour in the AM peak (as shown in image C.3 of the Transport Assessment – Appendix C [APP-256]). This includes an increase of 16 HGVs per hour. In the PM peak there is predicted to be an increase of 286 vehicles per hour, which includes an increase of 5 HGVs per hour.

The calculation of noise follows the methodology contained within the Calculation of Road Traffic Noise (CRTN), which, as stated in National Policy (NPSNN, paragraph 5.191), is the methodology to be used for the noise assessment. Within this calculation methodology the split in traffic in terms of light and heavy vehicles is used to determine the noise level at a given receptor. This is based on the traffic model data described above. The vehicles mentioned by the Interested Party (i.e. diesel trucks, construction lorries, buses and 18 wheeled HGVs) would all have been included within the category of a heavy vehicle for the noise calculations. In accordance with the algorithms within CRTN, a heavy vehicle generates more noise than a passenger car and so this is accounted for within the noise calculations. In terms of vibration, the proposed scheme is not permitting any different type or size of vehicle to use the road that cannot do so at present, and therefore there is predicted to be no change in the peak level of vibration currently experienced.

**REP2-036-004**

### **Sub-Question**

We are concerned about the health implications of vehicle emissions, particularly diesel engines, which have been proved to be more harmful than any other (appendix C). With more than half of the 1400 vehicles already passing through Inworth at peak times being fuelled by diesel - combined with carcinogenic particles from brakes, tyres and road surface abrasion (appendix D) - the prospect of living alongside the road, if J24 becomes operational, does not bear thinking about.

### **Applicant's Response**

The air quality assessment outlined in Chapter 6 of the Environmental Statement [APP-073] considered all changes in emissions with respect to the predicted total concentrations. The assessment concluded there would be no significant effects to human health during the construction and operation of the proposed scheme, in accordance with the Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality significance criteria.

With regards to the Interested Party's concerns about diesel vehicles, the percentage split of diesel vehicles applied within the air quality modelling are projections taken from the National Atmospheric Emissions Inventory (NAEI) Base Year 2019. The Applicant can confirm that according to the NAEI the modelling assumed around 45% of vehicles are diesel fuelled in the opening year 2027 (i.e. 2% HDVs, 15% LGVs, and 28% LDVs). The two-way peak morning hour traffic flow on Inworth Road was 1,112 vehicles and in the evening 1,132 vehicles. Of these approximately 6% are HGVs (in the morning) and approximately 2% in the evening.

Emissions would be higher during peak periods. However, air quality is assessed as an annual mean over 24-hour periods. Hence, the averaging accounts for off peak periods where emissions are considerably lower. The predicted annual mean NO<sub>2</sub> concentrations at receptors adjacent to Inworth Road are below the air quality standard for the protection of human health

The air quality assessment has included receptors in Inworth village. More specifically R117, R114 and R110 (shown on Sheet 4 of 8 of Figure 6.9 of the Environmental Statement [APP-213]) and Table 1.4 of Environmental Statement Appendix 6.5: Air Quality Modelling Results [APP-104]. The annual mean NO<sub>2</sub> concentration in the opening year 2027 at these receptors was predicted to be 15.1 µg/m<sup>3</sup>, 14.7 µg/m<sup>3</sup> and 12.2 µg/m<sup>3</sup> respectively. These levels are a combination of the scheme and background contribution. These levels are compared against the Air Quality Standard of 40 µg/m<sup>3</sup>. The increase in emissions owing to the increased traffic caused the following increase in annual mean NO<sub>2</sub> concentration of 1.2 µg/m<sup>3</sup>, 1.1 µg/m<sup>3</sup> and 0.6 µg/m<sup>3</sup> respectively (i.e. small in accordance with the judgement of significant effects in the DMRB LA 105). The annual mean PM<sub>10</sub> concentration in the opening year 2027 at these receptors was 16.1 µg/m<sup>3</sup>, 15.8 µg/m<sup>3</sup> and 15.3 µg/m<sup>3</sup> respectively. These levels are compared against the Air Quality Standard of 40 µg/m<sup>3</sup>. The increase in emissions owing to the increased traffic caused the following increase in annual mean PM<sub>10</sub> concentration of 0.3 µg/m<sup>3</sup>, 0.3 µg/m<sup>3</sup> and 0.2 µg/m<sup>3</sup> respectively (i.e. imperceptible in accordance with the judgement of significant effects in the DMRB LA 105). It is noted the PM<sub>10</sub> concentrations include the non-exhaust emissions.

It should be noted that the diesel split of both light and heavy vehicles is expected to reduce in line with Government policy.

REP2-036-005

### Sub-Question

During a consultation phase, we asked National Highways for a breakdown of types of vehicles that they predict will use the B1023 to access J24 – no answers were forthcoming. This is indicative of the consultation process and other questions we posed to NH during the consultation phase – How could we truly understand and make informed decisions and impacts of a proposed scheme, if we are not in possession of all the facts?

### Applicant's Response

During the Statutory Consultation of 2021, a Traffic Modelling Report for Consultation, was published in support of the consultation and published on the scheme's webpage:

[https://highwaysengland.citizenspace.com/he/a12chelmsford-to-a120-widening-consultation-june21/supporting\\_documents/A12%20Chelmsford%20to%20A120%20Widening%20Scheme%20Preliminary%20Design%20Traffic%20Modelling%20Report%20for%20Consultation%20June%202021.pdf](https://highwaysengland.citizenspace.com/he/a12chelmsford-to-a120-widening-consultation-june21/supporting_documents/A12%20Chelmsford%20to%20A120%20Widening%20Scheme%20Preliminary%20Design%20Traffic%20Modelling%20Report%20for%20Consultation%20June%202021.pdf)

This report provided the results of the traffic modelling at the time of consultation.

During the Supplementary Consultation of November 2021, the traffic figures for Inworth Road were updated following an update to the traffic model. These figures can be found in the Supplementary Consultation Brochure in Annex J2: Section 47 Consultation Material of the Consultation Report [APP-057] and Figure C.3 of the Transport Assessment – Appendix C: Traffic Flow Diagrams – Communities and A12 Mainline [APP-256].

The published traffic flow information provided above is for 'total vehicles' only. However, throughout the development of the proposed scheme and, more specifically, the consultation process, the Applicant has provided detailed responses to all correspondence received.

The Applicant has not received a request from the Interested Party for a detailed vehicle breakdown. However, following updates

made to the traffic modelling at the Supplementary Consultation, the Applicant provided the local Parish Council with detailed information on traffic flows, in June 2022, including the traffic modelling results for HGVs in Messing and on the B1023, which is as follows.

**Location 1: B1023 through Inworth village (total vehicles):**

B1023 Inworth Road, Inworth			
	AM peak	PM peak	24hr total
Without scheme	784	846	11,180
With scheme	1,111	1,132	14,820
Change	+328	+286	+3,640
% Change	42%	34%	33%

This information was last provided to Messing and Inworth Parish Council on 1 June 2022 for details on the B1023 and 4 August 2022 for details in Messing and Inworth.

Further information on traffic modelling can be seen in Figure C.3 of the Transport Assessment – Appendix C: Traffic Flow Diagrams – Communities and A12 Mainline [APP-256].

**REP2-036-006**

**Sub-Question**

What we do know is that National Highways cannot mitigate any of the possible effect of noise on our property. The house was not

built to cope with the impact of such a level of sustained noise and vibration. It is not possible to live peacefully in a house subjected to such conditions.

### **Applicant's Response**

The Applicant has responded at Deadline 1 within the Applicant's Response to Relevant Representations - Rev 2 [REP1-002] to RR-075. In the response, the Applicant states that it is not considered that the property would be uninhabitable due to potential impacts from noise, vibration, air quality or increases in traffic given the results of the assessments undertaken and in line with applicable guidance in DMRB and the NPSNN.

**REP2-036-007**

### **Sub-Question**

National highways have provided no plans or details of how the additional volume of traffic along the B1023 is to be managed. National Highways, ECC and Colchester Borough Council have no objectives to implement traffic calming features through Inworth to protect its residents. Any such feature will directly undermine the purpose of NH's design which is to provide a consistent flow of traffic to and from the junction. Messing and Inworth, seem to be the sacrificial element in this scheme, the easy option to make National Highway's plan work

### **Applicant's Response**

The Applicant recognises the additional traffic flow forecast on B1023 as a result of the A12 scheme. The design proposals shown in the DCO documentation (General Arrangement Plans Sheets 14 and 20/21) are the proposed mitigation for this additional flow, including easing of pinch points in Inworth village to reduce the likelihood of vehicles, especially larger vehicles, over-running the footway in order to pass oncoming vehicles.

The forecast volume of traffic on this route with the proposed scheme in place is within the range that this category of road can

accommodate, and therefore the proposed mitigation is considered to be sufficient to address any issues that may arise from increased traffic in this location.

**REP2-036-008**

### **Sub-Question**

From a safety perspective, if the B1023 is widened and pinch points are removed it will become hazardous for us and other Inworth residents to exit and enter our driveways. This does not take into account that the legal limit of the road may be exceeded by drivers as they confidently take these softened road features at speed. The safety of residents and other users, such as postal workers and delivery services seem to be inconsequential to National Highway's plan.

### **Applicant's Response**

The Applicant has carefully designed the extent of the widening works to provide small increases in width over limited lengths of the road. This has been done to minimise the likelihood of this widening causing an increase in speed. At present, the narrowness creates a greater likelihood of larger vehicles over-running the footway, which presents a threat to those walking on the path. The easing of pinch points is therefore a net improvement for both pedestrians (including people at work such as delivery providers) and users of vehicles travelling on the road.

In relation to exiting driveways, the Applicant responded at Deadline 1 in response to RR-075-004 within the Applicant's Response to Relevant Representations - Rev 2 [REP1-002].

**REP2-036-009**

### **Sub-Question**

To further add to our concerns, if the B1023 is modified, the construction phase will surround our property. Widening work will take

place in front and flood mitigation areas would be sited to the left and right at the rear. No details of when, how long, or how much disruption this will cause us has not been indicated by NH. This is just another instance of National Highway's lack of communication or awareness of how much these works will affect our lives.

### **Applicant's Response**

Section 2.10 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] details the mitigation measures that would be used during the widening of the B1023.

Some of the measures used would be to minimise disruption during on-carriageway works. These would be carried out during weekend closures with works during daytime working hours. There is insufficient space within the existing narrow carriageway to safely allow passing traffic under signal control. Access would be maintained to properties along the B1023 during these closures, albeit restricted to either the north or the south. Where works are immediately in front of a residential property, such as drainage works requiring excavations, then alternative short-term arrangements for access may need to be made in conjunction with the residents. For further details, please refer to section 2.10 of the OCTMP [REP2-003].

Offline works, such as attenuation ponds or flood mitigation, would be subject to standard working hours. Standard working hours are considered to be between 07:30 and 19:00 between Monday and Friday, and between 07:30 and 18:00 on Saturday. During the summer months, the working hours would extend to 07:00 to 21:00.

For further detail on working hours, please refer to section 6 of the OCTMP [REP2-003].

**REP2-036-010**

### **Sub-Question**

When information has been forthcoming, we and other residents have been confused by the literature and conflicting traffic models provided by National Highways in their replies. It rarely provided clear and defined information which allowed us to understand how our properties and the enjoyment of our properties will be affected. Our questions were never answered satisfactorily and many,



including us, feel demoralised and overawed by the sheer lack of support and understanding from NH of the devastating impact this scheme could have on our village. We feel this has been their modus operandi all along. Inworth and Messing are the only stakeholders who will be negatively impacted in terms of traffic volume if Junction 24 is adopted and another small Essex village will disappear. Is it a coincidence that Messing and Inworth also have the smallest number of stakeholders of those affected by the scheme? Our concerns have been ignored and the majority of residents in Inworth will suffer as a result of these plans.

### **Applicant's Response**

Since holding the statutory consultation in the summer of 2021, the Applicant updated the traffic model. The updated model showed a correction to the figures presented at the statutory consultation due to the model more accurately reflecting the condition of the road. This was presented at the supplementary consultation in November 2021.

When it comes to the traffic modelling of the proposed scheme, the Applicant can confirm that the traffic model does not include every road in the area. In general, narrow single-track roads are not included in such traffic models. This is due to the difficulty in modelling the lack of passing places and drivers' aversion to using them.

The Applicant has provided a technical note to explain the changes to the traffic model, Appendix OFH1A - Explanation of Traffic Model Changes of Deadline 1 Submission - Applicants Response to Open Floor Hearing 1 - Rev 1 [REP1-009].

In June 2021, the statutory consultation ran for eight weeks and included six public events, as well as six webinars and a virtual exhibition available 24 hours a day during the consultation period. An extensive letter drop took place, advertising the consultation to over 33,000 households in the area, including those living on Inworth Road.

In November 2021, a supplementary consultation was held for a duration of six weeks and included three public events, one of which was held in Messing. An extensive letter drop took place, which again included residents on Inworth Road, three webinars were held and a virtual exhibition was made available 24 hours a day during the consultation period.

For further information on the Statement of Community Consultation, see Chapter 4 of the Consultation Report [APP-045].

Furthermore, on Friday 21 October 2022, a public information event was held at Messing Village Hall. This event was advertised via

letter drop with all residents of Messing and Inworth.

At all events the Applicant has provided a range of experts to respond to questions that attendees may have including any explanations or clarifications.

The Applicant has responded to all correspondence received by the Interested Party.

In addition, the Applicant made two meeting offers to the Interested Party: the first on 29 June 2022, and the second on 24 October 2022. In both instances the Interested Party did not respond.

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

## Anglian Water

REP2-037-001

### Sub-Question

Anglian Water is the statutory wastewater recycling provider for the area within which the project is located and the statutory water services provider for the project area between Kelvedon and Colchester and the area around Hatfield Peverell. As outlined in our Relevant Representation, Anglian Water (AW) and National Highways (NH) have been in discussion on the project since October 2019 regarding the diversion of AW assets and the protection of other assets including 24/7 access in the event of an emergency.

Since the submission of our Relevant Representation, we have continued to engage with NH through regular meetings to discuss specific matters outlined in our representation; most recently a meeting to review the draft Statement of Common Ground (SoCG).

NH will be submitting the draft SoCG to the Examining Authority by Deadline 2, which AW has agreed as work in progress, and we will continue to engage on the outstanding matters that remain under discussion.

The NH project requires a significant number of Anglian Water pipes to be diverted, other assets to be protected and for the project to be managed to enable 24/7 access to Anglian Water assets in the event of an emergency. AW and NH have progressed

Protective Provisions which are in a final form apart from any amendments required to address unresolved matters including:

**Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-037-002**

**Sub-Question**

1. The protection of access to AW assets including access to AW land and assets on the east side of the A12 at Witham (Whetmead Local Nature Reserve).

**Applicant's Response**

Access to the nature reserve for the public would need to be suspended temporarily during the proposed widening of Brain Bridge, as stated in paragraph 8.1.5 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] 'The construction works will be programmed to ensure that restricting access and egress from the nature reserve via Blackwater Lane is minimised, however closure periods would be for approximately three months at a time, up to approximately twelve months'.

Access for Anglian Water would be agreed for maintenance to Whetmead nature reserve, this would most likely be via Blue Mills Hill, as shown on the Temporary Works Plan [AS-004] Sheet 8 of 21. The haul roads shown as work numbers T23 and T26 would be the most likely access route to be used, subject to further engagement with the Interested Party.

**REP2-037-003**

**Sub-Question**

2. The investigation of Essex and Suffolk Water assets on the eastern side of the Witham Water Recycling Centre (WRC) within AW land, by NH under licence from AW. This will determine whether the result of those investigations would require changes to the redline boundary of the project or other arrangements to enable the project to be constructed, operated and maintained and Essex and Suffolk Water assets to be protected or diverted. Those investigations include trial boreholes by NH and a licence is due to be issued for NH to proceed with these works.

### **Applicant's Response**

The Applicant acknowledges the matters raised by Anglian Water. The Applicant is liaising with Anglian Water and has obtained a licence to carry out the trial holes and investigation required to determine the location of the Essex and Suffolk Water (ESW) asset and once these investigations are completed, the Applicant will be in a position to assess the impact that the ESW asset will have on the proposed scheme.

**REP2-037-004**

### **Sub-Question**

3. The protection of the operations of the Witham WRC during construction and operation of the project including impact of the loss of trees on the A12, its impact upon the screening of the WRC site and the impact from the project on odour and its management at the WRC. Further meetings have been held to discuss the loss of trees/hedgerow to the east of the WRC in relation to odour management, visual screening and perception of odour on passing receptors. Odour assessment data has been provided by AW and we seek confirmation from NH on the replanting of trees/hedgerow along the eastern boundary of the WRC, which is in part influenced by the ground investigation works to establish the location of the Essex and Suffolk Water main and the resulting arrangements those investigations may entail.

### **Applicant's Response**

The Applicant acknowledges the comments raised by the Interested Party and appreciates the ongoing engagement.

Ground investigation is required to determine the location of the Essex and Suffolk Water (ESW) asset and once these investigations are completed the Applicant will be in a position to assess the impact that the ESW asset will have on the proposed design of the landscape and planting in this area.

The Environmental Masterplan, Part 1, Sheet 8 [APP-086] shows landscape mitigation comprising a hedgerow with intermittent trees to the foot of the embankment and grassland on the embankment of the northbound carriageway. The exact location of the hedgerow would be confirmed once the ESW asset has been identified.

The exact location and species mix of the hedgerow are subject to detailed design but would be sited in the optimal place for screening subject to other design constraints such as the retaining wall (including foundations and any backfilling) and the very narrow strip of available National Highways land. The hedgerow would be a mixed native species hedgerow. The Register of Environmental Actions and Commitments (REAC) [APP-185] requires the replacement of vegetation removed. Clause LV7 states: 'Where it would be necessary to remove vegetation within temporary works areas, such as construction compounds, utility routes, haul roads and regrading areas, this would be replaced on completion of construction using the same or similar species to that removed where practicable (subject to restrictions to planting over and around pipeline easements and consideration of species with regards to climate change and resilience to pests and disease, and landowner agreement). All land used temporarily would be restored and returned to an appropriate condition relevant to its previous use wherever practicable and appropriate, including the ripping, minor regrading and re-spreading of topsoil. Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed with landowner agreement.'

The Applicant will update the Interested Party once the investigation works are complete.

**REP2-037-005**

**Sub-Question**

6. NH's on-going surface water management investigations and designs requiring AW to be a consultee through inclusion in DCO Requirements on post consent decisions by the local planning authority on surface water management plans and designs. This is in part to ensure that those designs do not prejudice the operation of AW assets including currently unknown connections to the public sewer network and consequent impacts on the capacity of the network to serve existing customers and future development. We provide further detail on the reasoning behind this in our response to the Examining Authority's written questions.

### **Applicant's Response**

The Applicant does not consider it appropriate or necessary that Anglian Water (AW) be included as a consultee given the DCO requirement to consult with the Lead Local Flood Authority and the Environment Agency on surface water management and flood risk. The Applicant is also not aware of any outfall/drainage connections from the proposed scheme to the AW sewer network. If subsequent investigation shows that there are connections to the AW sewer network, the proposed scheme surface water drainage design would not increase the effective drainage area discharging to the AW sewer network. Hence, flows in the AW sewer network would be unaffected by the proposed scheme. Therefore, the Applicant does not anticipate that the construction and operation of the proposed scheme would adversely affect the operation of AW's assets. Protective provisions have been included in the DCO to ensure that AW's assets are suitably protected.

### **Boreham Conservation Society**

**REP2-039-001**

### **Sub-Question**

Summary BCS support the principle of the A12 widening scheme improvements between Junctions 19 and 25 but does not regard the closure of the Junction 20a on-slip to the A12 between the villages of Hatfield Peverel and Boreham as an improvement. Closure of the on-slip puts more, not less, traffic on Boreham's local roads. Alternative Proposal. Mr Charles Martin a BCS member has submitted an alternative plan to the Examining Authority (ExA) that would retain access at Junction 20a and maintain the desired three-lane carriageway. Mr Martin and BCS have responded to the Applicant's A12 JUNCTION 20A SOUTHBOUND MERGE ASSESSMENT OF ALTERNATIVES REPORT, REP1- 023, REP1-025 and REP1-026 refer. Traffic Modelling. BCS have

significant concerns about the adverse impacts upon Boreham that are predicted to flow from implementation of the DCO proposals. BCS concerns are heightened by the realisation that if, as BCS contends, the Applicant has seriously under-estimated the predicted increases in traffic, the knock-on impacts for Boreham and Hatfield Peverel would be many times greater than stated in the DCO. The closure of Junction 20a would be final without any future redress. If the Applicant's modelling under-estimates increases in traffic there are no practical remedies available for either Boreham or Hatfield Peverel; Junction 20a could not be reinstated. BCS's contend that there are credible grounds on which to question the Applicant's modelling of traffic flows and the capacity of local roads to cope. Mitigation. BCS confirm agreement to the Statement of Common Ground for mitigation, for the B1137, submitted by Essex County Council. BCS adds that any practical mitigation measures, such as those proposed and supported by BCS could, nevertheless, be overwhelmed by traffic if the Applicant has seriously under-estimated the volume of traffic that would be diverted on to local roads by the DCO proposals. Dangers of rat-running traffic. The Applicant has publicly stated that increases in rat- running traffic are dangerous. BCS agree. BCS request that the Applicant provides an explanation for the residents of Boreham why an outcome, agreed to be dangerous, is planned for Boreham. Protected Lanes. The Applicant's proposals would put increased, dangerous, rat-running traffic on Church Road, Boreham which would be in direct contravention of Chelmsford City Council Policy DC15. This increase would flow directly from the closure of the on-slip at Junction 20a and adds to the valid objections to closure submitted by BCS and many Boreham Parishioners. BCS estimate that more than 25% of all the letters submitted to the Planning Inspectorate with regard to the DCO application came from Boreham Parishioners objecting to the adverse impacts from closure. Boreham Cultural Heritage. The settlement of Boreham is though to date from 850 BC and contains many Listed Buildings. The village environment and unique Church are already threatened by commuter traffic and the increases resulting from closure of the on-slip at Junction 20a would present an unwelcome and unnecessary increase to this environment. The paragraphs below expand upon the Summary statements as appropriate.

### **Applicant's Response**

The Applicant notes the comments made by the Interested Party.

The Applicant has provided detailed responses on all matters in the following sub-parts.

REP2-039-002

**Sub-Question**

1. Alternative Proposal. BCS and Mr Martin rely upon REP1- 023, REP1-025 and REP1-026. BCS add that Mr Martin, following the scoring methodology of the Applicant's report, scores his proposal +8 above the Applicant's alternatives.

**Applicant's Response**

The Applicant notes Mr Martin's independent scoring of the roundabout option presented in the Junction 20A Southbound Merge Assessment of Alternatives report in Appendix B of the Applicant's Response to Relevant Representations [REP1-002]. The Applicant maintains the score of -15 and -17 for the roundabout and signalised junction respectively as presented in the Junction 20A Southbound Merge Assessment of Alternatives report and the Junction 20A Southbound Merge Alternative Roundabout Proposal Analysis report submitted in the Applicant's Response to Open Floor Hearing 2 [Appendix OFH2A, REP1-012].

REP2-039-003

**Sub-Question**

2. Traffic Modelling. 2.1 The Applicant's model predicts commuters arriving in the AM peak on the B1019 Maldon Road at it's junction with the B1137 (The Street) in Hatfield Peverel at the mini roundabout opposite the Duke of Wellington (DofW) junction in Hatfield Peverel: 88% of the will turn east to use new Junction 21 to reverse direction and head west towards their destination. Currently 100% of those wishing to travel west, turn west at the DofW towards their destination to access the A12 at Junction 20a or Junction 19. 12% of the commuters arriving at the DofW will continue to follow their established routine and turn west towards their destination. BCS adds that the Applicant admits that this cohort of commuters will be joined by commuters from the west of Hatfield Peverel who, as the Applicant admits, will find the journey to new Junction 21 too far to travel. BCS points out that these commuters who previously used the right road, the A12, via Junction 20a would be forced to use the wrong road, the B1137 through Boreham.



2.2 BCS contend that the decision to save a minute by using junction 21 or save a “mile” by using the B1137 is finely balanced and that a modelling output of 88% / 12% seems unrealistic. BCS do not have the capacity to question the methodology adopted. However, BCS do know that inputs flow through to outputs and those from the Applicant’s model simply do not seem sensible. BCS also remain unconvinced by the statement in 5.12.1 / 5.12.2 of the Applicant’s A12 JUNCTION 20A SOUTHBOUND MERGE ASSESSMENT OF ALTERNATIVES REPORT that: “Although the baseline DCO design may give drivers the impression of a detour, it provides for this movement via a dedicated link road between Hatfield Peverel and junction 21 with minimal interaction with property access and frontages, and junction 21 itself has longer slip roads which facilitate acceleration to speeds appropriate for a trunk road”. 2.3 BCS contend that a sensible description of manoeuvres involving a right- hand turn at the priority decided existing mini roundabout opposite the Duke of Wellington, followed by left hand turn over a bridge spanning 6 lanes of the A12 to reach a priority decided roundabout to turn right over another bridge over the 6 lane A12 to reach another priority decided roundabout to join the A12 to reverse the direction of travel is, in fact, a detour. 2.4 To help in establishing public confidence in the Applicant’s assessments BCS request an explanation of the assumptions contained in the construction of the model. BCS also request the Applicant to advise whether their modelling produced a range of outcomes and, if so, to state where the predicted 88% / 12% lies in the range. BCS understand that the “Rochdale Envelope” principles apply to the scheme and, if so, the Applicant should have both a best- case and worst-case outcomes readily available. 2.5 The Applicant’s mantra is that road(s) can cope with the predicted increases(s) in traffic. BCS has requested he Applicant to provide an explanation of the apparent anomalies between the assessed capacities of Boreham’s local roads. The Applicant cites OFH1A but that report does not deal with the capacity issues. To do so requires data for the volume of traffic and the capacity of the road on which it travels. For capacity data, BCS relies upon the data provided by the Applicant, (which BCS acknowledges with thanks), as contained in an email of 11th March 2022 from which stated: “In a vacuum, a single-carriageway urban road would have a maximum capacity of 1,300 vehicles per hour in each direction, according to our traffic modelling. However, this figure is a best-case scenario which doesn’t account for factors which may restrict a road’s capacity in practice, such as junctions, parked cars, or narrow lanes. Therefore, each road in the area analysed in our traffic modelling has its capacity estimated individually; these numbers are calculated by a combination of standard capacities for different kinds of road, and real-life observations of traffic flows and speeds. The traffic capacities you have requested for Boreham Main Road and Plantation Road are listed below:”

Road	Road type selected	Capacity (vehs/hr in each direction)
Main Road Boreham (between Church Road and Plantation Road)	Single carriageway B-road (30mph, high development)	800
Main Road east and west of . Boreham village	Single carriageway B-road (average condition, 40mph)	935
Plantation Road	Single carriageway C-road	

(30mph) 935 2.6 The real-life observations of BCS members who live in Boreham and drive these roads are: Main Road is wider and straighter than Plantation Road which has twists and turns. Main Road has some inset Bus stops, Plantation Road has none and all bus stops are at the kerb. Main Road on road parking is a rarity whereas in Plantation Road it is not. Main Road (formerly the A12) was constructed to A road standard, Plantation Road is and has always been a C class road. Main Road flows through the village, Plantation Road is a short connecting road with T junctions at either end. 2.7 BCS do not have the capacity to question the methodology adopted. However, BCS do know that inputs flow through to outputs and, in the examples above, the outputs simply do not seem sensible. To help in establishing public confidence in the Applicant's assessments BCS request a detailed explanation for these apparent anomalies. 2.8 There have been many communications regarding whether Boreham's roads (especially Main and Plantation Roads) can cope with the volume of traffic predicted by the Applicant. BCS acknowledge the initial error of comparing the predicted two-way flow of traffic with the one-way capacity provided by in March 2022. The Applicant advised, in their letter of 3rd August 2022, from that "The two -way flow should be compared to the two way -capacity". A subsequent letter from tts dated 16th September 2022 stated that "the two-way capacity of these roads is generated by combining the one-way capacity of each direction. The predicted traffic flows on Main Road, Waltham Road, Plantation Road and Church Road each fall well within this capacity as neither directional flow is forecasted to be above 50% of this two-way capacity." BCS thank the Applicant for the advice and explanations. 2.9 BCS requests the Applicant to provide the data for one-way traffic flows, (in each direction), for Main Road through Boreham and Plantation Road in Boreham for the AM and PM peak periods. This data will be crucial in providing public confidence that the one-way flow (on a single lane) is below capacity and will show the leeway between predicted one - way volume and assessed one way capacity. This data will also be crucial to establishing public confidence in the Applicant's contention that the adverse impacts for Boreham from closure of the southbound access at Junction 20a, are as stated in the DCO application. BCS comments that such adverse impacts assume that, following the closure of junction 20a, only 12% of traffic will turn left at the Dof W in Hatfield Pevel. BCS has a concern, widely shared by members and residents (demonstrated by the fact that Boreham parishioners submitted over 25% of the total Relevant Representations) that the actual traffic through Boreham will be significantly higher than predicted by the Applicant. The data requested from the Applicant should help allay such concerns. This data will also show the robustness of the Applicant's modelling of road capacities and directional traffic flows between left and right hand turns at from the B1019 Maldon Road at it's junction with the B1137 at the DofW mini roundabout.

## Applicant's Response

### Route choice in the traffic model

Regarding the predicted decisions of drivers to travel to the A12 via Boreham or via the proposed new junction 21, a response to this was provided in the Applicant's Response to Open Floor Hearing 1 [REP1-009], response references 49 and 50. For ease of reference, these responses said:

"The traffic model predicts that, of traffic on the B1019 Maldon Road heading towards either Chelmsford or the A12 southbound towards London in the morning peak, 88% would turn right at the Duke of Wellington mini-roundabout and join the A12 at the proposed new junction 21. Only 12% would travel through Boreham to junction 19. Even though the route via junction 21 is a longer distance than via Boreham, it is predicted to be over one minute quicker. This takes into account the predicted quicker speeds on the widened A12, as well as the proposed reduced speed limits on the B1137.

The prediction of which routes people take on their journeys is undertaken by the traffic model. This takes into account both the journey time and distance of a trip. How each traveller weighs up journey time and distance is based on standard traffic modelling parameters provided in the Department for Transport's Transport Appraisal Guidance. These parameters vary for different types of traveller, for example a commuter travelling by car would have different preferences to an HGV driver. The traffic model also takes into account the impact of congestion. For example, if more people chose to travel via the B1137 through Boreham this route would become more congested and therefore slower, making the route via junction 21 more attractive in comparison."

The Applicant further notes that this modelling assessment was undertaken using the methodologies set out in the Department for Transport's Transport Analysis Guidance, specifically Unit M3.1 section 2.8.

Regarding the comment about whether a range of outcomes is considered, the traffic figures quoted in the Transport Assessment [APP-253] and the Environmental Statement are based on a single set of traffic figures, not a range. These represent the "most likely" predictions of future traffic levels using standard traffic modelling guidance and growth factors provided by the Department for Transport, and information on local housing and employment developments provided by local authorities.

The approach to the environmental impact assessment needs to be proportionate in relation to the nature of the potential impacts

on local communities and the environment. Consequently, the assessment for noise and air quality is based on the output of the traffic model for the most likely traffic scenario and not for a range of modelled scenarios.

The Interested Party mentioned that they understand that “Rochdale Envelope principles apply to the scheme and, if so, the Applicant should have both a best- case and worst-case outcomes readily available”. The Rochdale envelope is an approach that can be used to assess the environmental impact of a scheme where there are still options or where details of the design have not been finalised. As explained in Chapter 2 The proposed scheme [APP-069] of the Environmental Statement, the Rochdale envelope has been interpreted by drawing the Order Limits sufficiently broadly to allow some flexibility in the detailed design of the scheme. Furthermore, limits of deviation have been incorporated into the Order Limits to allow minor modifications to be made to the proposed scheme during detailed design. The limits of deviation are specified in Article 10 of the draft Development Consent Order and refer to horizontal and vertical changes of the permanent works, not to traffic flows.

The Applicant did not submit the DCO with multiple options available as the Interested Party is suggesting. The Applicant has no major works planned for the area around the existing junction 20a, as such in accordance with the Work Plans [AS-026, AS-003 and AS-004] there is minimal limits of deviation around junction 20a, as that part of the road is descoped from the scheme (as it is already 3 lanes in each direction).

For the purposes of economic appraisal, alternative traffic models were produced to represent “high growth” and “low growth” in future traffic demand. These reflect different predictions surrounding factors such as demographic change (population and employment), GDP growth, fuel price trends and vehicle efficiency changes. These alternative traffic model scenarios model the impact of higher and lower traffic flows across the entire model area, both with and without the proposed scheme in place. It is not an assumption of the impact of the proposed scheme itself being higher or lower than the core scenario.

These alternative traffic model scenarios were used to understand the impact of such alternative predictions on the value for money of the scheme. A summary of the results of these economic assessments is provided in Section 12.1 of the Combined Modelling and Appraisal Report [APP-261].

#### Traffic flows and capacities

The Applicant notes the Interested Party’s comments in paragraphs 2.5 to 2.8 about road capacities. The capacities listed in the

table are taken from 'speed-flow curves'. In line with standard traffic modelling practice, each road in the strategic traffic model is assigned a speed-flow curve. This defines how fast traffic will travel in the model when the road is quiet, and how traffic speed will reduce as the road gets busier. The speed-flow curve for each road is assigned based on observations of the road conditions and on traffic flow/speed data collected as part of the model development. Speed-flow curves are assigned to the thousands of links within the traffic model, based on a library of available speed-flow curves.

Although the maximum capacity is part of the speed-flow curve, just as important is the traffic speed and how that changes when the road gets busier. That is especially true for roads such as Plantation Road where the traffic flow is significantly below the maximum capacity. The Applicant is confident that the speed-flow curve used for Plantation Road is appropriate for use in the strategic traffic model.

Although Plantation Road would become busier due to the proposed scheme, comparing the predicted flows against the maximum capacity from these speed-flow curves shows that the roads would not be operating above their maximum capacity.

As well as this comparison of average flows against typical capacities, more detailed 'junction models' were also developed which can more accurately model complex interactions between vehicles at junctions, and junction-specific properties such as ease of visibility on different arms. For the Plantation Road junction with Main Road, this assessment is provided in chapter G.7 of the Transport Assessment – Appendix G [APP-260]. This shows that Plantation Road is predicted to have an increase in delay of around 23 seconds on average to get onto Main Road in the AM peak, with no significant change in the PM peak. This is based on forecast traffic flows for 2027, comparing the predicted traffic without the proposed scheme against traffic with the proposed scheme.

Regarding the Interested Party's request for one-way traffic flow data, the table below shows the highest predicted flow in a single direction for Main Road and Plantation Road, for the AM and PM peak. These traffic flows are those predicted with the proposed scheme in place in 2027. Each of these flows are within the capacities listed in the Interested Party's response.

	<b>Highest one-way flow (vehs/hr): AM peak</b>	<b>Highest one-way flow (vehs/hr): PM peak</b>
<b>B1137 Main Road</b>	519 (travelling SW)	324 (travelling NE)
<b>Plantation Road, Boreham</b>	209 (travelling N)	238 (travelling N)

As stated above, the traffic model predictions of which route drivers choose takes into account the impact of congestion. For example, if more people chose to travel via the B1137 through Boreham this route would become more congested and therefore slower in the traffic model, making the route via junction 21 more attractive in comparison.

**REP2-039-004**

### **Sub-Question**

3. Mitigation 3.1 BCS have common ground with Kemi Badenoch MP, Essex County Council, Chelmsford City Council, Boreham Parish Council and Essex Police, that it is essential that the proposed reductions in speed limits are enforced by Average Speed Cameras. The need for such cameras would arise exclusively from the Applicant's proposed closure of Junction 20a. 3.2 Boreham parishioners will indirectly contribute, through general taxation, to the estimated £1.3bn cost of the scheme. Given the admitted adverse impacts upon Boreham parishioners BCS contend that it would perverse and inequitable if Boreham parishioners were required, through payment of Council Tax, also to contribute to the installation and/ or maintenance of these Average Speed Cameras. BCS therefore contend that the Applicant should pay for the installation and maintenance of the cameras and call upon

the ExA to compel the Applicant to do so should the DCO be approved in its current form. 3.3 The Applicant's email of 16th December 2021 from stated that a reduction in speed limit to 40mph is proposed between Junction 19 and Boreham Village. BCS requests confirmation that this remains the Applicant's intention and proposes that this stretch of the B1137 is included in the Average Speed Camera coverage.

### **Applicant's Response**

Speed data currently available show speeds lower than the current limits, typically closer to the proposed lower limits than the current limits.

Speed reductions are expected due to the changes in speed limits, based on the research evidence underpinning Department for Transport Circular 01/2013 Setting local speed limits.

The proposed scheme is forecast to increase traffic volume at some times of day and the above document also notes that higher traffic flows naturally reduce vehicle speeds.

The Applicant is not proposing fixed camera enforcement (average speed or at individual locations) because the combination of current speed levels and likely speed reductions means that further measures are not considered necessary.

The details of speed limit changes will be the subject of formal consultation with Essex County Council as the Highway Authority and with Essex Police. Both organisations are partners in the Safer Essex Roads Partnership which undertakes enforcement.

The proposal is to lower the limit within the built-up area of the village to 30mph and to reduce the limit between the village and A12 J19 to 40mph. Both of these changes will be subject to the formal consultation mentioned above and this will be set out the Applicant's case relating to the need for enforcement.

**REP2-039-005**

### **Sub-Question**

4. Dangerous Rat-Running Traffic 4.1 In September 2022 Mr P Davie, NH Project Director for the A12 Chelmsford to A120 widening scheme was quoted in Safer Highways and widely elsewhere that (in relation to the scheme): “Anyone living locally will also know the issue of traffic including Heavy Goods Vehicles, using local roads as rat runs. This is dangerous and has an adverse effect on local villages and the surrounding communities. This scheme will put that traffic back on the A12 where it belongs”. 4.2 The DCO proposals would have the effect of putting more (not less) rat-running traffic through Boreham and on the local roads of Church Road and Hammonds Road (part of which is a Protected Lane running through a Conservation Area) in the knowledge that this will have adverse and dangerous impacts in Boreham and on these local roads. BCS do not accept that public money can be spent to increase the dangers, listed by Mr Davie, to Boreham parishioners. BCS repeats it’s request for an explanation and will continue to do so until one is given. 4.3 BCS supports the scheme objective stated to “take long distance traffic off the local roads and put it back on the A12 where it belongs, so that local roads aren’t used as rat runs, affecting local villages and their communities”. BCS does not support the proposal to close the junction 20a on-slip as this is diametrically opposed to the scheme’s objective. Closure forces commuters from the west of Hatfield Peverel who currently access the A12 at the Junction 20a on-slip, to use the local road, the B1137, through Boreham. 4.4 The Applicant states in REP1- 002, RR -046 – 02, that “overall” there will be less traffic on Essex’s local roads and that more roads will see a decrease than those who will see an increase and this is welcomed. Nevertheless, the DCO proposals are specifically, detrimental for Boreham. Problems transferred to Boreham are not problems solved. BCS contends that adoption of the plan proposed by Mr Martin (see Alternative Proposal above) would have the following benefits: Improve the DCO outcomes by increasing the reduction in traffic on Essex’s roads and increasing the number of local roads that would see a decrease rather than an increase in rat-running traffic. Dispel the idea, held by many Boreham parishioners (and expressed at Village Hall meetings and through their responses to the DCO application, that the outcome from spending £1.3bn of public money will be a significant deterioration in their environment. 4.5 BCS remain concerned regarding the Applicant’s admission that the significant adverse operational impact of the scheme will be, for Boreham: 28 households will suffer, “increased operational traffic noise contributing to sleep disturbance and annoyance. Increased operational traffic on Main Road contributing to moderate severance. 4.6 BCS would record that Boreham contains about a third of all households predicted to suffer significant adverse effects from the scheme’s operation and that as the B1137 effectively bisects the Village and an increase in severance is a material disadvantage for all residents. These are the admitted adverse effects predicted by the Applicant’s models that assume 12% of traffic will turn left at the DofW junction. If, as BCS contends, the 12% prediction under-estimates the actual decisions made



by commuters, the significant adverse effects on Boreham will be even more severe and impact many more households and parishioners.

### **Applicant's Response**

The traffic model is used to predict which routes people take on their journeys. This takes into account both the journey time and distance of a trip. How each traveller weighs up journey time and distance is based on standard traffic modelling parameters provided in the Department for Transport's Transport Appraisal Guidance. These parameters vary for different types of traveller, for example a commuter travelling by car would have different preferences to an HGV driver.

The traffic model for the proposed scheme predicts that, of traffic on the B1019 Maldon Road heading towards either Chelmsford or the A12 southbound towards London in the morning peak, 88% would turn right at the Duke of Wellington mini-roundabout and join the A12 at the proposed new junction 21. Only 12% would travel through Boreham to junction 19. Even though the route via junction 21 is a longer distance than via Boreham, it is predicted to be over one minute quicker. This takes into account the predicted quicker speeds on the widened A12, as well as the proposed reduced speed limits on the B1137. The traffic model also takes into account the impact of congestion. For example, if more people chose to travel via the B1137 through Boreham this route would become more congested and therefore slower, making the route via junction 21 more attractive by comparison.

Overall, the traffic model predicts that the amount of traffic on the local roads maintained by Essex County Council with the proposed scheme would decrease. In addition, traffic flows are predicted to be lower on more local roads than higher. However, the Applicant acknowledges that traffic is predicted to increase on Main Road in Boreham as a result of the proposed scheme.

The Applicant's response to feedback received at the Statutory Consultation can be found in section 1.1 of Annex N of the Consultation Report [APP-062]. The Applicant has considered Mr Martin's alternative design proposals submitted during the Statutory Consultation [APP-062], his relevant representation [RR-176], and his submission at deadline 1 [REP1-025]. The Applicant has previously provided a technical note as an Appendix to its response to Open Floor Hearing 2 [REP1-012] (Appendix OFH2A: Junction 20A Southbound Merge Alternative Roundabout Proposal Analysis). As set out in the technical note, there are operational safety concerns with Mr Martin's design options and amending Mr Martin's design to comply with DMRB standards would result in a design similar to that considered by the Applicant in the Junction 20a Southbound Merge Assessment of

Alternatives Report (Appendix B to the Applicant's responses to Relevant Representations submitted at Procedural Deadline A [PDA-004]). This similar design was assessed by technical experts from multiple disciplines and scored poorly compared to the baseline design to close junction 20a.

The 28 households mentioned in paragraph 4.5 of Boreham Conservation Society's response relates specifically to the findings of the noise assessment reported in Chapter 12 [APP-079]. This increase in noise has been mitigated where possible by the reduction in speed limit along Main Road from 40 to 30mph. The predicted increases in noise reported along Main Road are between 1 and 3 dB(A). This increase in noise would generally be considered as not noticeable. However, due to the close proximity of some sensitive receptors to Main Road, the absolute noise level with the proposed scheme is above the Significant Observed Adverse Effect Level (SOAEL).

For circumstances where the absolute noise level is above the SOAEL and there is an increase in noise of more than 1 dB(A), DMRB LA 111 Noise and Vibration instructs these receptors to be classed as experiencing a likely significant adverse effect. As is reported in paragraph 12.11.31 of Chapter 12 Noise and Vibration of the Environmental Statement [APP-079], there are 28 such receptors within Boreham. It should be noted that the character of this noise will not change (ie it will still be noise from road traffic) and the location will not change (it will be on the same façade of the receptor as at present). The Applicant does not consider this small increase in noise would lead to any significant change in sleep disturbance in this context.

For clarification, the assessment in Chapter 13 does not state that impacts on severance are restricted to 28 households in Boreham. The Applicant accepts that the increase in traffic is likely to have a negative impact on community wellbeing in Boreham as set out in paragraph 13.18.73 of Chapter 13: Population and Human Health [APP-080]. However, the effect of this impact on overall population health has not been assessed as significant because of the presence of an existing controlled crossing which would continue to enable crossing to the key community hubs of the recreation ground and Boreham Village Hall, the proposed reduced speed limit and the available evidence on impacts of links between community severance and health outcomes as presented in Section 8 of Appendix 13.1 [APP-153].

**REP2-039-006**

**Sub-Question**

5. Protected Lanes 5.1 Church Road/Little Baddow Road is, because of its historic interest, designated from Shottesbrook to the river Chelmer Bridge, as a Protected Lane Chelmsford City Council/Essex County Council; Policy DC15 refers. These roads are narrow country lanes totally unsuited to commuter traffic; they are classic “rat-runs”. 5.2 The river Chelmer has always been popular with anglers and has many long -established stands along the river. The river and pathways have become increasingly popular with water-sports enthusiasts and walkers. The only practical area for road-side parking is on Church Road, travelling west from Boreham immediately before the bridge. This increased leisure use has recently necessitated the introduction of parking restrictions with double yellow lines now in place. The bridge has a weight restriction to exclude HGV’s but increasingly, to avoid congestion at junction 19, sat-navs seem to be directing HGV’s along Hammonds Road to the bridge Faced with a weight restriction and the practical impossibility (due to road width) of turning, HGV’s ignore the weight restriction and cross the bridge. BCS believe that the route and river Chelmer Bridge merit a site visit by the ExA. 5.2 BCS notes from REP1-002 / RR 158 -01 that the Applicant states: “The protected lane status and the weight restrictions on Church Road and the River Chelmer bridge are proposed to remain to discourage traffic from using this route to bypass junction 19 and join the A12 at junction 18.” 5.3 BCS notes in 4.3 above that closure of the Junction 20a on-slip diverts traffic from the A12 and onto the B1137. The Applicant predicts increases in traffic on Plantation Road some of which will be as a direct consequence of closing Junction 20a. BCS contend that maintenance of the status quo is not enough to safeguard the local Protected Lane and calls upon the Applicant to bring forward additional measures to do so. 5.4 BCS notes from REP1-002 / RR-074-006, that the Applicant states: “With the proposed scheme in place, some traffic is still predicted to travel from junction 18 to Boreham via Hammonds Road. Traffic on Hammonds Road is predicted to increase as a result of the proposed scheme by around one vehicle per minute. One reason for this is because, due to a slight increase in the amount of traffic on the A12 south of Boreham Interchange, journey times on the A12 between junction 15 and junction 19 are predicted to increase by around one minute overall in the proposed scheme opening year of 2027.” 5.5 The traffic referred to in 5.4 above, is heading east towards Boreham does not have priority at the river Chelmer Bridge and the sight lines at the bridge are difficult, especially in the spring and summer periods where vegetation hinders the view. In the peak periods, where commuters are rushing to avoid congestion, the Applicant predicts, on these Protected / Country lanes, increased traffic heading west from Boreham meeting increased traffic heading east towards Boreham, at the single lane, westward priority lane over the river Chelmer

Bridge. BCS contend that the dangers of this situation should be clear to the Applicant and requests the Applicant to either adopt the alternative proposal submitted by Mr Martin ( see 1 above) or provide a safe solution for this problem simply waiting to happen. 5.6 BCS request the Applicant to inform the debate on this issue by providing the following data: The current traffic volumes (each way) for both AM and PM peaks periods. The predicted increases (each way) for both the AM and peak periods.

### Applicant's Response

The Applicant reiterates the response provided to RR-158-01 in the Applicant's Response to Relevant Representations – Rev 2 [REP1-002]. This stated that “The protected lane status and the weight restrictions on Church Road and the River Chelmer bridge are proposed to remain to discourage traffic from using this route to bypass junction 19 and join the A12 at junction 18.”.

The predicted change in traffic over the River Chelmer bridge in 2027 is shown in the tables below. All traffic flows are provided in vehicles per hour.

#### AM peak

	Without scheme	With scheme	Difference
<b>Northbound (to Boreham)</b>	82	117	+35
<b>Southbound (to A12 J18)</b>	219	258	+39

**PM peak**

	<b>Without scheme</b>	<b>With scheme</b>	<b>Difference</b>
<b>Northbound (to Boreham)</b>	218	243	+25
<b>Southbound (to A12 J18)</b>	152	178	+26

The predicted increase in traffic over the River Chelmer bridge is around one vehicle per minute in total, split evenly between each direction.

The Applicant notes the low design standard of this route, which is reflected in low traffic flows because many drivers are likely to be deterred from using a constrained route. The self-explaining nature of the location and the potential hazards are reflected in the recorded safety record for the road. There were no recorded personal injury collisions in the last 20 years for which collisions are available for the 500m section of the route including the bridge and its approaches and exits.

The additional traffic on this route as a result of the scheme is 39 vehicles an hour in the worse case (southbound pm peak) and 35/hour in the other direction at that time. This means less than 1 additional vehicle per minute in each direction, and does not materially change the safety status of this route. For this reason, no mitigation is proposed as part of the A12 scheme.

**REP2-039-007**

## Sub-Question

6. Cultural Heritage; Impact upon Boreham's Listed Buildings

6.1 Boreham has two conservation areas, Church Road and Roman Road (Main Road, B1137) and within the parish of Boreham there are 38 listed buildings. Early settlement is known from at least 850 BC. The first mention of Boreham is in the Domesday Book of 1066. The centrepiece of Boreham is the Grade 1 listed St Andrew's Church and the building shows evidence of Saxon, Norman and Tudor construction. The church has a number of unusual features, including a central, square tower. The Church is accessed from a narrow pavement on Church Road and the road is used to access Main, Plantation, Little Baddow and Hammonds Roads. There is a priority lane (with permanent priority heading from Church Road to Main Road) directly to the front of the Church. This road is wholly inappropriate for use by rat-running traffic.

6.2 The predicted adverse impact for Boreham's parishioners is covered in 4 above. BCS would add that Boreham's heritage and village environment, unique locally in that separation has been preserved, is presently adversely impacted by commuter traffic. To propose the closure of the on-slip at Junction 20a in the full knowledge that more "dangerous rat-running traffic" would be directed through Boreham, is tantamount to a wilful decision of cultural vandalism.

6.3 The list of Boreham's Historic assets directly impacted by increased traffic from the closure of the on-slip at junction 20a is shown below. The LHS numbers shown are as allocated on the website of British Listed Buildings. The RHS numbers are taken from the Boreham Village Design Statement (VDS) and the book titled More About Boreham (MOB) ISBN. BCS are happy to provide copies of these documents.; please contact .

6.4 Listed Buildings from east to west;

- 28, The Cock Inn, on roadside of B1137, North side at Waltham Road Junction. VDS p55. MOB 36,
- 37 The Chestnuts, on roadside of B1137, south side opposite Six Bells, painted pink
- 25, Six Bells Public House, on roadside of B1137, north side at Plantation Road junction. VDS p54; MOB p28, 29, 30,38
- 2, 1, 2, and 3, Maltings Cottages; between Clock House & Plantation Road on roadside VDS p27
- 15, Clock House & Clock House Cottage, by B1137 on south roadside, drawing on p27
- VDS 32, The Wine Barrel on roadside of B1137, North side at Church Road junction, used to be the old post office, now a barbers shop with a very old house behind it. VDS p47
- Not listed, but a heritage asset all the same The Limes is a very attractive house on the roadside north of the B1137, photo VDS p31
- 8, Boreham House & registered historic garden with its ornamental canal coming right up to the roadside. Photo VDS p16
- 17, Generals, right on the roadside a former inn named after General Monke. MOB p40,41

6.5 Listed Buildings from Plantation Road heading to the river Chelmer Bridge:

- 24, Shottesbrook, on pavement where Church Road becomes Little Baddow Road. VDS p37 MOB p220/1
- 6, Barn North East of Old Hall Farm, quite close to Little

Baddow Road, black weatherboarded, with its own listing. 23, Old Hall Farm, set well back from the Little Baddow Road but visible from it. VDS p37. MOB p76, 81 19, Little Baddow Lock set well back from the road but visible from it. 6.7 Church Road/Little Baddow Road is, because of its historic interest, designated from Shottesbrook to the river Chelmer Bridge, as a Protected Lane Chelmsford City Council/Essex County Council; Policy DC15 refers. Most extra traffic on Plantation Road will have come from/gone to Church Road, Little Baddow Road and Hammonds Road, over the river Chelmer Bridge to get to/from Junction 18, avoiding the congestion at Junction 19.

### **Applicant's Response**

The Applicant acknowledges the Boreham Conservation Society's concerns regarding the impact of traffic on the historic environment along Church Road and Plantation Road as well as Main Road.

The Applicant has assessed the potential impact of the proposed scheme on the built heritage including listed buildings of all grades, and the results are provided in the Built Heritage impact assessment in Chapter 7, Cultural Heritage of the Environmental Statement, [APP-074] and Appendix 7.9 of the Cultural Heritage Impact Assessment Summary Tables [APP-117].

Mitigation measures to reduce noise during operation are provided in Section 12.10 of Chapter 12: Noise and vibration [APP-079]; First iteration of the environmental management plan (EMP) [APP-184] and the register of environmental actions and commitments in Appendix A of the first iteration of the EMP [APP-185].

### **Construction Traffic**

Church Road and Plantation Road in Boreham have been specifically excluded from any construction traffic, as shown on Sheet 3 in the Outline Construction Traffic Management Plan Appendix B: Permitted and excluded routes for construction vehicles (plans) [REP2-004].

### **Church Road**

In the opening year (2027), the predicted traffic flow for the Do-Minimum scenario (DM) (Flow = 4,955, %HGV = 0.8%) versus the Do-Something scenario (DS) (Flow = 4,748, %HGV = 0.9%) along Church Road, shows a reduction in traffic.

### **Plantation Road**

In the opening year (2027), the predicted traffic flow for the Do-Minimum scenario (DM) (Flow = 3,647, %HGV = 1.2%) versus the Do-Something scenario (DS) (Flow = 4,167, %HGV = 1.2%) shows a slight increase in traffic flows along Plantation Road.

### **Historic Buildings**

The Applicant's assessment of the impacts on the identified built heritage assets, as provided in Chapter 7, Cultural Heritage of the Environmental Statement [APP-074] and Appendix 7.9 of the Cultural Heritage Impact Assessment Summary Tables [APP-117], are as follows:

- Asset 89, the Grade I listed Church of St Andrew in Boreham, a High value asset, was assessed as subject to no impact from the proposals, resulting in a neutral significance of effect.
- Asset 91, Boreham: Church Road Conservation Area, a Medium value asset, would be subject to no impacts resulting in a neutral significance of Effect.
- Asset 109 The Cock Inn, a High value asset, would be subject to noise impacts from additional traffic resulting in a slight significance of effect.
- Asset 104 The Chestnuts, a High value asset, would be subject to noise impacts from additional traffic resulting in a slight significance of effect.
- Asset 102 Six Bells Public House, a High value asset, would be subject to noise impacts from additional traffic resulting in a slight significance of effect.
- Asset 99 Maltings / Maltings Cottages / St Andrews, a High value asset, would be subject to noise impacts from additional traffic resulting in a slight significance of effect
- Asset 98 Clock House / Clock House Cottage, a High value asset, would be subject to noise impacts from additional traffic resulting in a slight significance of effect.
- Asset 79 The Wine Barrel, a High value asset, would be subject to no impact resulting in a neutral significance
- Asset 153 The Limes, a High value asset, would be subject to impacts from changes to the setting resulting in a slight significance of effect.



- Asset 69 Boreham House, a High value asset, would be subject to an impact from changes to the setting of a High Value asset resulting in a slight significance of effect after mitigation.
- Asset 57 Generals, a High value asset, would be subject to changes to the setting around Junction 19 which are assessed as having a slight significance of effect after mitigation including woodland planting of trees and shrubs around junction 19.
- Asset 103 Shottesbrook, a High value asset, would be subject to no impact resulting in a neutral significance of effect.
- Asset 97 Old Hall, a High value asset, would be subject to no impact resulting in a neutral significance of effect.
- Asset 100, a High value asset, Barn north-east of Old Hall would be subject no impact resulting in a neutral significance of effect.
- Asset 101 Boreham: Roman Road/Plantation Road Conservation Area, a Medium value asset, would be subject to noise impacts from additional traffic, resulting in a slight significance of effect.

Little Baddow Lock has not been assessed in the Cultural Heritage, Chapter 7, because this is approximately 1.7kms from the A12 and not considered to have the potential to be affected.

## Cadent Gas Limited

REP2-042-001

### Sub-Question

1. INTRODUCTION 1.1 We act for Cadent Gas Limited (Cadent). 1.2 The draft DCO (dDCO) for the A12 Chelmsford to A120 Widening Scheme (the Project) being promoted by National Highways Limited (the Promoter) contains development which may affect Cadent's apparatus. 1.3 Cadent has identified the following apparatus within the order limits: low, medium, intermediate and high pressure gas pipelines and associated apparatus (the Apparatus). 1.4 The Project will also necessitate diversions include: 4 x high pressure pipelines 1 x intermediate pressure pipeline 12 x low and medium pressure diversion schemes (the Diversions). 1.5 Cadent is the holder of a gas transporter licence (the Transporter Licence), granted pursuant to section 7 of the Gas Act 1986 (the 1986 Act). Cadent owns and maintains the gas distribution network in the North West, West Midlands, East Midlands, the East of England and North London. The Apparatus forms part of Cadent's gas distribution network. 1.6 Cadent is required to comply with

the terms of its Transporter Licence in the delivery of its statutory duties. It is regulated by the Network Code which contains relevant conditions as to safe transmission of gas and compliance with industry standards on transmission, connection and safe working in the vicinity of its Apparatus. 1.7 This submission is made on behalf of Cadent in response to the Examining Authority's (ExA) examination timetable. 1.8 For the purposes of the Planning Act 2008 and section 127, Cadent is a statutory undertaker and the land included within the order limits is statutory undertakers' land. Cadent require the protective provisions secured within the DCO (when made) to be in their preferred form to ensure that there is no serious detriment to the carrying on of Cadent's undertaking. 1.9 We make this submission further to Cadent's relevant representation dated 4 November 2022. Cadent set out its requirements for adequate protection in that response.

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-042-002**

### **Sub-Question**

2. PROTECTIVE PROVISIONS 2.1 The dDCO includes protection for Cadent's apparatus and the gas distribution network. However, it does not include the specific protection provisions that Cadent requires to prevent serious detriment to its undertaking. 2.2 Cadent require all promoters (including the Promoter) carrying out development in the vicinity of their Apparatus to comply with industry standards including: GD/SP/SSW22 – Safe Working in the vicinity of Cadent High Pressure's Gas Pipelines and Associated Installations; IGE (Institution of Gas Engineers) recommendations IGE/SR/18 Edition 2 Safe Working Practices to Ensure the Integrity of Gas Pipelines and Associated Installations; and the HSE's guidance document HS(G)47 Avoiding Danger from Underground Services. 2.3 The industry standards referred to above have the specific intention of protecting: the integrity of the pipelines and thus the distribution of gas; the safety of the area surrounding gas pipelines; and the safety of personnel involved in working with gas pipelines. 2.4 Cadent requires specific protective provisions in place for an appropriate level of control and assurance that the industry regulatory standards will be complied with in connection with works in the vicinity of Cadent's Apparatus.

Cadent also requires comfort that it is fully protected from a costs and liability perspective. 2.5 Cadent has engaged with the Promoter in relation to the protective provisions that Cadent require to be included within the dDCO (the Cadent Protective Provisions) throughout the pre- application process. Cadent has agreed the Cadent Protective Provisions with the Promoter and expects the agreed form of the Cadent Protective Provisions to be secured by an agreement in due course. 2.6 In the current energy and security of supply crisis, providing full and proper protection to the gas distribution network is increasingly important. The Cadent Protective Provisions will help to achieve this and to avoid serious detriment to Cadent's undertaking.

### **Applicant's Response**

The Applicant notes Cadent's comments and confirms that it has been negotiating protective provisions secured by an agreement. It is anticipated that an agreement will be concluded before the end of the examination.

**REP2-042-003**

### **Sub-Question**

3. LAND AND DIVERSIONS 3.1 Through preliminary consultation, National Highways and Cadent identified that multiple gas diversions may be required to facilitate the project. National Highways initially commissioned Cadent to carry out design work which included a preliminary route option assessment for twelve potential medium pressure diversions, one intermediate pressure diversion and four high pressure diversions. Cadent have only recently received the information required to confirm that the Diversions are required and, if required, to design the details of those Diversions. The Diversions have not yet reached detailed design stage and so the final positioning, land rights and consents required for these gas diversions are not confirmed by Cadent. 3.2 National Highways has now commissioned Cadent to undertake detailed design of the Diversion routes and Cadent will be able to provide an update to the Examining Authority once the detailed design has been finalised. Cadent will continue to develop its design work which, for above 7 bar diversions, will include extensive appraisals of environmental sensitivities, ecological surveys, geo-technical assessments, and impact assessment to determine the final route. This will need to consider how the construction of the A12 will influence the extent of the diversion of Cadent's apparatus. 3.3 Cadent will seek to minimise impact on the local area

through both the route refinement and the construction techniques utilised. Cadent's final route decision will seek to minimise environmental impact, whilst also ensuring the continued safe, resilient operation of the pipeline. 3.4 When Cadent is requested to divert existing strategic infrastructure, it operates under stringent policies and procedures that ensure legislative and regulatory compliance. Cadent also seeks to utilise industry best practice in ensuring environmental and safety commitments are met, whilst creating a positive impact for its customers, colleagues, and communities. In diverting infrastructure, Cadent's purpose is to ensure safe, reliable energy supplies whilst also enabling major infrastructure development. Cadent has clear sustainable development goals which help contribute to greener societies. 3.5 Cadent will require new land rights to be secured by the Promoter through the dDCO for the Diversions. Such rights will need to be made available to Cadent by the Promoter before any Diversions can commence and any existing Apparatus is decommissioned. This is in order to prevent an impact on the Apparatus and Cadent's undertaking, and this will be secured by the Cadent Protective Provisions.

#### **Applicant's Response**

The Applicant confirms that it has commissioned Cadent to carry out this design work. Although the final positioning of the diversions has not been established, the Applicant has taken a conservative approach and is confident that dDCO therefore provides for the acquisition of sufficient land, rights and consents for these gas diversions.

**REP2-042-004**

#### **Sub-Question**

4. ROLES AND RESPONSIBILITIES 4.1 The Promoter is required to obtain, and is responsible for obtaining, the consent and the necessary land rights to deliver the Diversions. 4.2 Cadent will be principally responsible for the construction of the Diversions once all consents and land rights to deliver those Diversions have been secured by the Promoter.

#### **Applicant's Response**

The Applicant confirms that dDCO provides for the acquisition of land, rights and consents for these gas diversions, and notes Cadent's acknowledgement that it is prepared in principle to construct the diversions required by the scheme.

## Climate Emergency Planning and Policy

REP2-044-001

### Sub-Question

I am a scientist with a background in computer modelling of complex phenomena, including climate change. Between 1995 and 2006, I ran the high-performance computer service at the University of East Anglia. I also have 17 years' experience working on planning and climate change issues as a councillor both on Norwich City Council and on Norfolk County Council, and as an environmental consultant. My current work at CEPP is to promote the necessary rapid response to the Climate Emergency in mainstream institutions, such as local authorities, planning inquiries and government, through the lenses of science, policy, and litigation. (Further resume in Appendix H). In so far as the facts in this statement are within my knowledge, they are true. In so far as the facts in this statement are not within my direct knowledge, they are true to the best of my knowledge and belief.

### Applicant's Response

The Applicant notes the Interested Party's comments.

REP2-044-002

### Sub-Question

SUMMARY The key issue of this Written Representation ("WR") is how the significance of the climate change impacts of carbon emissions associated with the scheme are assessed. This is also the question with respect to greenhouse gases ("GHGs") which the Secretary of State (SoS) must grapple with and reach a reasoned conclusion, and that the Examination recommendations from the ExA must deal with. By background, the UK has now a legal and policy framework on Climate Change which might be labelled

as the “net zero” world. This “net zero” world contains several legal requirements, for example: the Net Zero target 2050, the Sixth Carbon Budget, the 2030 68% reduction target, the 2035 78% reduction target; and policy to deliver these legal requirements, for example, the Net Zero Strategy. None of these existed before 2019, and some of them are very recent, for example the Sixth Carbon budget and the Net Zero Strategy. This requires a new approach to assessing significance, and this recognised by the Government in reviewing the NPSNN which was published in 2014 under a completely different UK climate change regime. With the emergence of the new UK legal and policy frameworks on climate change, new industry guidance has emerged too, such as the publication by IEMA of a best practice guidance of EIA assessment of GHGs from infrastructure projects. It provides recommendations that naturally, given the very different prevailing climate change regime, extend beyond the traditional NPSNN based evaluation of significance with further contextualisation for GHG significance assessment. Application of this guidance for contextualisation literally provides “add-on” value to GHG assessment and the ES because the resulting significance assessment is considerably more trustworthy and accurate. This is explained at Section 2 of the WR. Section 3 goes into the detail of the implications of there being no cumulative assessment of carbon emissions in the ES, and also provides further analysis of the causality of the issue (for example, how the baselines and scenarios in the traffic model are configured to exclude cumulative assessment). It also responds to incorrect arguments that the Applicant has made elsewhere about cumulative assessment and provides an update on my legal cases on (the lack of) cumulative assessment of carbon on other DCO schemes to which the Applicant is an Interested Party. Just for clarity, I once again state that categorically in this summary that there is no assessment of the climate change impact of cumulative carbon emissions in the ES. Section 4 return to the assessment of significance using the IEMA guidance and shows that IEMA guidance has not been followed by the Applicant despite it being quoted and referenced. This section also covers the so-called TDP1 Sensitivity test, and notes that as the implementation of the TDP is not secured, the TDP sensitivity test provides no evidence to support the conclusion that the emissions from the scheme are “not significant”. There are a number of problems which result from this. First is that the ES is unlawful as there is no cumulative assessment of carbon emissions. Should this issue not be addressed by the Applicant, then the Examining Authority is respectfully requested to consider whether it is of the view that it is necessary for the ES to contain the necessary further information. The Examining Authority is requested to give consideration to Reg 20 (1) of the 2017 Regulations which provides the Examining authority with the option to ‘suspend consideration of the application’ if it is necessary for the ES to contain further information. Second, the ES is effectively missing the data that IEMA contextualisations provide in determining both the IEMA significance criteria and the NPSNN 5.18 test in the “net zero” world of climate legislation and policy. I should make it clear that IEMA contextualisation is not an “optional extra”. The

point I am making is that the IEMA contextualisation is a necessary part of assessment, in the “net zero” legal and policy world, to actually reach the correct conclusion. Without it, the incorrect conclusions may be reached, as I submit the Applicant has in their ES. This is because relevant and vital data is being missed. In the approach of the Applicant, the assessor (or competent expert) goes into the assessment process (including NPSNN 5.18) with their eyes 95% closed; by employing IEMA assessment as an additional tool the assessor goes in with their eyes wide open. The Examining Authority is also respectfully requested to consider if the ES should be updated with IEMA contextualisations, so that a trustworthy significance assessment can be attained. I conclude that the scheme is not “not significant” and fails the NPSNN 5.18 test on the basis of the scale of the climate change impacts from its carbon emissions. The scheme should therefore be recommended for refusal.

### **Applicant's Response**

It is recognised that the National Policy Statement for Networks (NPSNN) is currently under review, however, as noted by the Department for Transport (<https://www.gov.uk/government/speeches/review-of-national-policy-statement-for-national-networks>) the ‘NPS remains relevant government policy and has effect for the purposes of the Planning Act 2008. The NPS will, therefore, continue to provide a proper basis on which the Planning Inspectorate can examine, and the Secretary of State for Transport can make decisions on, applications for development consent’. Furthermore, there is currently no indication of if or how the approach to the assessment of carbon impacts associated with nationally significant infrastructure projects will change once the review has been undertaken.

Many of the points raised in this written representation have previously been addressed within the Applicant's response [REP1-002] to the Relevant Representation [RR-156]. These responses are summarised herein, along with additional information where relevant.

- The assessment set out in the Environmental Statement Chapter 15: Climate [APP-082] has been undertaken with reference to relevant guidance (namely DMRB LA 114 Climate). However, the assessment is also considered to be in accordance with IEMA guidance on Assessing Greenhouse Gas Emissions and Evaluating their Significance. Therefore further contextualisation is not considered necessary to inform the assessment of significance.
- The assessment is considered inherently cumulative; therefore no further assessment of cumulative impacts is

required.

- The Interested Party's comments on the lack of a cumulative assessment in the ES is founded on a mis-reading of the 2017 Regulations, as explained in the response at [REP1-002];
- The Interested Party's argument that there is a legal duty to assess carbon impacts at a less than national scale was refused permission on the basis that it was not arguable by Holgate J in an order dated 21 December 2022 in relation to the Interested Party's High Court proceedings challenging the making of two of the A47 DCOs.
- It is recognised that the future trends in road user greenhouse gas (GHG) emissions are uncertain, hence the Transport Decarbonisation Plan (TDP) sensitivity test results presented in Table 15.24 of Chapter 15: Climate [App-082] are provided for information only (to show the potential impact of the implementation of the policies within the TDP and demonstrate that the assessment in Chapter 15 represents a robust case) and have not been used to inform the assessment of significance set out in the ES.

Therefore, the Environmental Statement as presented is lawful, no data are missing and the assessment of significance presented has been undertaken in accordance with relevant guidance.

As such, the Applicant maintains that the impact of the proposed scheme on climate change is not significant as it is considered unlikely to have a material impact on the ability of UK Government to meet its carbon reduction targets.

**REP2-044-003**

**Sub-Question**

1.1 Deadline 2 (D2) 1 This is my Written Representation submission for Deadline D2. I previously submitted a Relevant Representation which is reproduced in clear format at Appendix G. 1.2 Definitions and Abbreviations DMRB Design Manual for Roads and Bridges DM “Do Minimum” traffic modelling scenario DS “Do Something” traffic modelling scenario EIA Environmental Impact Assessment EFT Emissions Factor Toolkit GHGs Greenhouse Gas Emissions ER Environmental Report ES Environmental Statement TAG Transport analysis guidance 2 For scientific clarity and precision, I use the following additional definitions: • Absolute emissions – carbon emissions which are expressed in terms of an absolute quantity of emissions. The value of the



absolute emissions, as released into the atmosphere, quantifies the real measure of the impact of greenhouse gases on the environmental factor (or receptor) of the global climate. • Differential emissions – carbon emissions, with an associated value which has been derived by differentiation of absolute emissions. The differentiation is usually performed by the difference between two traffic scenarios, one with a transport intervention and one without.

### **Applicant's Response**

The Applicant agrees that the magnitude of greenhouse gas emissions released into the atmosphere relates to the resulting impact on the global climate. However, for EIA purposes, the assessment is concerned with the 'change' in emissions as a result of a scheme or project. That change is placed within its context since the total amount of carbon produced by the baseline, other projects and the scheme itself are set out in the ES. It is further contextualised via comparison against the national carbon budgets, which represent the only available trajectory against which significance can be assessed.

**REP2-044-004**

### **Sub-Question**

2 APPROACHES TO SIGNIFICANCE ASSESSMENT OF GHGS 3 The key issue of this WR is how the significance of the climate change impacts of carbon emissions associated with the scheme may be optimally assessed to produce a robust and trustworthy significance assessment. This is necessary for the Secretary of State to be able to make a lawful decision under the Planning Act 2008 and other relevant legislation. 4 Evaluating significance of GHGs can be understood at an overarching level as "is the Scheme consistent with the legal framework of the Climate Change Act 2008, the Net Zero target 2050, the Sixth Carbon Budget, the 2030 68% reduction targets, the 2035 78% reduction target, and the policy framework of the Net Zero Strategy to deliver them?" 5 And what level of adversity (eg "Minor Adverse" etc) is attached to the climate impacts of the scheme when that question has been answered. 6 These are the questions which the Secretary of State (SoS) must grapple with and reach a reasoned conclusion, and that the Examination recommendations from the ExA must deal with. 7 This vital question of how to evaluate significance has been phrased in a number of ways at the next level, for example: "Does the scheme do enough to align with and contribute to the relevant

transition scenario, keeping the UK on track towards net zero by 2050 with at least a 78% reduction by 2035 and thereby potentially avoiding significant adverse effects” and “Is the increase in carbon emissions resulting from the proposed scheme so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets The first is from the IEMA Guidance (the significance criteria for “Minor Adverse”) and the second from the NPSNN (the “NPSNN 5.18 test”). 8 It can be seen that both evaluations have a common objective, that the scheme must align with, or not have a material impact so significant on, meeting national Climate Change targets. However, the approach to demonstrating how, and whether, national Climate Change targets will be met differs between IEMA and the NPSNN. The difference in approach can largely be attributed to the different publication dates of the guidance: NPSNN, 2014 and IEMA guidance, version 2, 2022. 9 NPSNN 5.17 says “However, for road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government’s carbon budgets.” (“the NPSNN 5.17 comparison”). This simplistic comparison, and any assessment based on it, has to be understood in the context that it was written before the Net Zero target 2050, under a different regime of legislated carbon budgets (the 2nd and 3rd budgets) with an 80% carbon reduction target for 2050. The completely different legislative and policy framework for climate change in 2014 is one reason why the government recognised that the NPSNN needed to be reviewed, as is now currently on-going. 10 The IEMA guidance version 2 has been published in the “net zero” world, which now is the legal and policy framework. It identifies a (third) key principle in its introduction to “Significance” (IEMA, v2, Chapter 6): “GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit [footnote 31]; as such any GHG emissions or reductions from a project might be considered to be significant [footnote 32]” Where footnote 31 is “There is a global GHG emission budget that defines a level of dangerous climate change, and any GHG emission that contributes to exceedance of that budget or threatens efforts to stay within it can be considered as significant.” And footnote 32 is “The third principle is related to the IPCC carbon budget definition. The IPCC’s Sixth Assessment Report (WG1: The Physical Science Basis, Table SPM.2) indicates that the remaining global carbon budget from 2020 that provides a two-thirds likelihood of not exceeding 1.5°C heating is 400 GtCO<sub>2</sub>; for an 87% likelihood it is 300 GtCO<sub>2</sub>.” As well as being in the “net zero” world, the IEMA guidance clearly identifies its scientific sources (the latest IPCC report), and as we will see IEMA advocate science-based carbon budgets (see section 6.2 of this WR) and makes clear that all emissions all emissions contribute to climate change<sup>2</sup>. 11 In the perspective of the “net zero” world, IEMA accepts the comparison against national budgets as a starting place for assessing significance. However, it strongly recommends that that such a national comparison is then in addition contextualised with comparisons with local, regional and sectorial carbon budgets and targets. 12 The applicant has, as far as significance assessment, only performed the MPSNN 5/17

comparison, and has decided (despite claiming otherwise, see next sub-section) not to follow IEMA, and therefore, not to do local regional and sectorial contextualisation. It is an error for the Applicant to develop its ES as if the two approaches are options, and that one may be selected over the other, as it has done by solely using the NPSNN 5.17 comparison method for significance. 13 With the emergence of the new UK legal and policy frameworks on climate change, and the publication by IEMA of a best practice guidance reflecting them, the reality is that by using the IEMA approach, in addition to an assessment that starts with a NPSNN 5.17 comparison, results in a significance assessment which is considerably more trustworthy and accurate. 14 When IEMA contextualisation is used with the NPSNN national comparison, the resulting assessment provides a much more accurate evaluation of the risk of delivery of the legal and policy framework. By this, I mean, that an evaluation of the common objective, that the scheme must align with, or not have a material impact so significant on meeting national Climate Change targets, is the ultimate goal for both IEMA and NPSNN. 15 However, using IEMA contextualisation provides a much greater evidence-base on which to make the significance assessment at NPSNN 5.18. 16 The ES, as submitted, is simply missing vital data. The data in question can include key aspects of more recent policy since the NPSNN was published, for example, the Net Zero Strategy projections of carbon reductions, and the Tyndall Centre science-based carbon budgets which align to the science-based budgets required to deliver the Paris Agreement (as explained in Appendix B). 17 By doggedly continuing to follow what is widely accepted as outdated guidance in the NPSNN, even as it is being reviewed by the Government, the Applicant is not just avoiding new methods, but they are excluding a significant evidence base related to more recent legislation and policy which is critical and essential to perform the NPSNN 5.18 test correctly. 18 Therefore the NPSNN 5.18 test performed by the Applicant without any IEMA contextualisation may produce a misleading and incorrect result (assessment). It therefore can arrive at an incorrect significance assessment in relation to the new policy and legislation. Beyond being technically wrong, it is legally in error, as by deliberately omitting new evidence bases, such as the Net Zero Strategy trajectories which are part of the legally required plan to deliver the Climate Change Act, it cannot be said to rationally assess the latest legal and policy framework. 19 It is only by also carrying out IEMA contextualisation(s), as a complementary evaluation(s), that the technically correct, and lawful, significance assessment can be reached.

### **Applicant's Response**

Paragraphs 3-6

The Applicant asserts that a robust and trustworthy assessment of significance has been undertaken in accordance with relevant

policy and guidance.

While it is recognised that the National Policy Statement for Networks (NPSNN) is currently under review, the UK Government has confirmed that the 'NPS remains relevant government policy and has effect for the purposes of the Planning Act 2008. The NPS will, therefore, continue to provide a proper basis on which the Planning Inspectorate can examine, and the Secretary of State for Transport can make decisions on, applications for development consent' (<https://www.gov.uk/government/speeches/review-of-national-policy-statement-for-national-networks>).

With regard to carbon impacts, paragraph 5.17 of the NPSNN states that applicants should provide evidence of the carbon impact of the project and an assessment against the UK Government's carbon budgets. While noting that 'it is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet the targets of its carbon reduction plan targets', paragraph 5.18 of the NPSNN goes on to state that 'any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets'. It is therefore this question that must be answered (i.e. is the increase in carbon emissions associated with the proposed scheme so large that it would prevent carbon budgets being met?).

Paragraphs 7-9

It is recognised that there is no set significance threshold for carbon (i.e. an absolute or relative change in carbon emissions that could be considered significant), therefore professional judgement must be used to assess whether increases in carbon emissions as a result of the proposed scheme could have a material impact on the ability of the UK Government to meet its carbon reduction targets (and would therefore potentially be significant).

This approach is recognised in the Institute of Environmental Management and Assessment (IEMA) guidance on Assessing Greenhouse Gas Emissions and Evaluating their Significance (the IEMA Guidance), which explains that:

"The specific context for an individual project and the contribution it makes must be established through the professional judgment of an appropriately qualified practitioner drawing on the available guidance, policy and scientific evidence."

"it is down to the practitioner's professional judgement on how best to contextualise a projects GHG impact."

The approach to assessing significance taken within Environmental Statement Chapter 15: Climate [APP-082] accords with the

methodology for assessing significance set out in the IEMA Guidance, which explains 'The Crux of significance is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050.' Thus, to assess the significance of any change in emissions associated with a project, an assessment has to be made against a baseline which contains a trajectory towards net zero (e.g. the UK carbon budgets).

While the NPSNN was published in 2014, it was published within the framework of the Climate Change Act 2008 (CCA 2008) and the adoption of carbon budgets. The Applicant has used the 5th and 6th carbon budgets (which were set in 2016 and 2021, respectively) to inform the assessment. Therefore, the difference in the dates between when the NPSNN and IEMA guidance were published (i.e. 2014 and 2021, respectively) is irrelevant, as the trajectory towards net zero against which impacts are assessed is the same in either case (i.e. the trajectory towards net zero set by the UK carbon budgets).

It has to be remembered that there is no requirement in the CCA 2008, or in government policy for carbon emissions, for all road transport to become net zero. Indeed, the Government contemplates the use of greenhouse gas removal to balance the residual emissions from sectors that are unlikely to achieve full decarbonisation by 2050.

#### Paragraph 10

While the IEMA guidance refers to science-based targets it also states that 'specific context for an individual project and the contribution it makes must be established through the professional judgement of an appropriately qualified practitioner, drawing on the available guidance, policy and scientific evidence' and in footnote 35 'At the time of publication, the applicable evidence is that provided by the IPCC and UNFCCC, supporting the commitments defined in the Paris Agreement, and in the UK that provided by the CCC with regard to GHG budgets and policies that are compatible with the UK's Paris Agreement commitments.'

#### Paragraphs 11-15

As noted in paragraph 15.1.9 of Chapter 15: Climate [APP-082], the only statutory carbon targets are the carbon budget targets and the Net Zero 2050 target that are set at a national level i.e. they are targets for the UK as a whole. There are no sectoral targets (e.g. for transport), nor any targets set at a subnational geographic scale. This means that, for the purposes of assessing the likely significance of the effects of the proposed scheme in accordance with the IEMA guidance, the only available trajectory is that

contained in the national carbon budgets.

The Interested Party, in High Court proceedings challenging the making of two of the A47 DCOs (CO/3506/2022 and CO/4162/2022) put forward an argument that a failure to assess the significance of the Scheme emissions against carbon budgets contained in the Norfolk Local Transport Plan resulted in a breach of Regulation 21(1)(b) of the 2017 Regulations. These arguments, founded on the assertion repeated in his written representation that there is a legal duty to assess carbon impacts at a less than national scale was refused permission on the basis that the point was not arguable by Holgate J in an order dated 21 December 2022. No appeal has been lodged against this decision.

#### Paragraph 16

No other trajectory has been produced for a less than national scale which is demonstrably consistent with the national carbon budgets. Mathematical exercises in apportioning emissions derived from the national carbon budgets do not result in trajectories which can be appropriately used since, were the Government to undertake such an exercise, it may be that for policy reasons certain geographical areas might be weighted differently than others.

This was recognised by Holgate J in R(Transport Action Network) v Secretary of State for Transport [2021] EWHC 2095 (Admin) at paragraph 89 where he explained:

“There is no requirement for the transport sector to achieve a pro-rotta share of the overall decarbonisation target.”

It is then not reasonably possible for the Applicant to produce an alternative baseline trajectory against which the significance of the proposed development's carbon emissions could be assessed since it is unable to make the necessary policy judgments relating to the apportionment to a smaller geographical area. Accordingly, there is no reasonable basis upon which the Applicant can assess the potential likely significant effect of the proposed scheme's carbon emissions at anything other than at the national level.

#### Paragraphs 17-19

As noted above, the assessment has been undertaken with reference to current planning policy (i.e. the NPSNN) and the IEMA Guidance in order to provide a complete and robust assessment of the significance of the impact of the proposed scheme on climate.

REP2-044-005

### Sub-Question

3.1 Reviewing the carbon emissions assessment done 20 Table 15.23 provides estimates for the “net change in GHG emissions” for construction and operation emissions against the carbon budget periods. In effect the data provided against the carbon budgets is Do Something – Do Minimum, or DS- DM, estimates of the GHG emissions. 21 As the only difference between the DS and DM scenarios is the Scheme itself, the estimated figure for the emissions from the scheme for each carbon budget used for assessment (in Table 15.23) is Scheme-only, or ‘solus’, and not cumulative. Assessment of the significance of the scheme was then made by comparing this difference figure to each national carbon budget (i.e. a Scheme-only assessment was made). 22 I describe the difference between the “DM” and “DS” scenarios as “Scheme-only” estimates, and I submit that no cumulative assessment has been made. 23 This comparison of the ‘difference’ DS-DM estimates against national carbon budgets cannot, in itself, discharge the requirement of the EIA 2017 Regulations for an assessment of the cumulative impacts of the scheme.

### Applicant’s Response

An environmental statement is required to include:

“a description of the likely significant effects of the development on the environment resulting from, inter alia— (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;” (see paragraph 5 of Schedule 4 to the 2017 EIA Regulations).

Thus, the focus of an environmental statement is upon whether the proposed development is likely to have a significant effect upon the environment of itself and/or in combination with other existing and/or approved projects. It is not the function of an environmental statement to provide an assessment of the likely significant effects of other potential related or unrelated projects which will be subject to their own assessments and decision-making processes. As a result, the Environmental Statement assessed the likely significant effects of the Scheme. It also places the carbon emissions in context in that the ES:

A. sets out the total carbon emissions from background sources, other potential related or unrelated projects and the scheme itself; and

B. assesses against the national carbon budgets.

The Written Representation is based upon a misreading of the 2017 Regulations. Dr Boswell contends (as he has in respect of many schemes and is currently arguing in three Claims in the High Court relating to improvements to the A47) that what the 2017 Regulations require is for an Environmental Statement to identify separately the background carbon emissions, the emissions from other potential related or unrelated projects and the scheme. He is wrong to assert that this is required by law. He is wrong to assert that there is only one method or approach that can rationally be used to assess cumulative carbon impacts. The wording of the 2017 Regulations is clear and is focussed upon the assessment of the effects of the proposed development itself in combination with other existing and/or approved projects. There is no requirement in the 2017 Regulations to separately assess the significance of other existing or approved schemes since they will have already been assessed for their significance in terms of their potential impacts upon climate change.

**REP2-044-006**

### **Sub-Question**

3.2 There is no cumulative impacts assessment of the carbon emissions from the scheme 24 It is a statutory requirement that the ES assess the cumulative effects of the scheme with other developments: paragraphs 5 of Schedule 4 to the EIA Regulations 2017, relevantly, requires the ES to include: "A description of the likely significant effects of the development on the environment resulting from, inter alia: ... (e) the cumulation of effects with other existing and/or approved projects, ...;" More detail of the legal framework for Environmental Impact Assessment, and the 2017 regulations, is given at Appendix A. 25 The problem with the ES is that by including "existing and/or approved projects" in the DM scenario (and then presuming that it is the traffic model baseline), it inaccurately treats all of the committed local land based and road developments in the study area, other than the Scheme, as though they give rise to existing emissions and not additional emissions alongside the Scheme. This means that the Applicant has not actually conducted any assessment of the significance of the cumulative carbon emissions from the Scheme with other existing



and/or proposed developments. The Applicant has only conducted an assessment of the impact of the Scheme in isolation, against a baseline that assumes that the other existing and/or proposed developments in the area already exist. 26 The Applicant attempts to address this issue at the “Potential cumulative effects” section starting at 15.11.14. I have no dispute with the description of the traffic model at section 15.11.14. However, the second sentence of section 15.11.15 is wrong. All the other developments are not expressed by the DS-DM calculation (or by comparing ‘without scheme scenario’ and the ‘with scheme scenario’), as the carbon emissions associated with other developments are included within both the DS and DM scenarios, and is subtracted out. The cumulative effects of the other developments is therefore masked out in the assessment against carbon budgets which is based upon the DS-DM value only. 27 The emissions from these local land-based and road developments are treated as if they are existing emissions (when in fact the developments haven’t yet been built) because, as shown above, the DM scenario is (incorrectly) treated as the baseline for the carbon emissions assessment. 28 This then infects the assessment as ES section 15.11.8, and the evaluation of significance as “not significant”. As above, the ES considers only the figure for the difference between the two scenarios (i.e. “Scheme only” figures). It sets these out as percentages of the various 5- year national carbon budgets. It, therefore, looks at the Scheme’s impact on climate change in isolation and not cumulatively with any other existing or proposed developments. In particular, it does not assess (such as against the carbon budgets) the cumulative impact of the Scheme with any other projects, in this case the local land based and road developments, or make any judgement about what projects should be considered cumulatively with this one. This makes it impossible to assess lawfully whether the scheme’s emissions cumulated with other projects’ emissions would materially impact the ability to meet the Government’s carbon reduction targets. 29 My position is simply that it is a legal requirement in assessing the significance of the scheme to include the cumulative impact of the Scheme with existing and/or approved projects and that the Applicant has, instead, considered only the impact of the Scheme in isolation in Table 15.23 (the only assessment ever made in the ES). 30 To summarise: • CATEGORICALLY, there is no assessment of the impact of cumulative carbon emissions in the ES. Categorically, no such cumulative assessment has been attempted. Importantly, it is not that a cumulative assessment of carbon emissions has been attempted, and I disagree with the way it has been done. It is that a cumulative assessment of carbon emissions has not been done at all in the ES and the Application. The traffic and emissions from the local land based and road developments are added into the traffic model DS scenario, and then subtracted out when the DS is compared to the DM scenario in Table 15.23. The omission is unlawful with respect to the EIA Regulations 2017 (“the 2017 Regulations”). Until this omission is corrected, the ES remains unlawful. By failing to conduct the cumulative assessment, the ES is defective because it fails to meet the requirements in paragraphs 5 of Schedule 4 to the EIA Regulations 2017 read with Schedule

4, para. 5(f) and reg.5(2). 31 However, the lack of any cumulative assessment is just the first of the problems which make the ES fundamentally unsuited to assessing the material impacts of the scheme on the ability to meet the Government's carbon reduction targets. The second problem is the lack of any contextualisation of the assessment made with local, regional and sectorial budgets as discussed in the next main section.

### **Applicant's Response**

The representations here raise the same matters which is at issue in the A47 and A428 Black Cat junction judicial review challenges. The Secretary of State has already rejected these representations in a number of DCO decision letters and is defending these decisions on that basis.

Paragraphs 15.11.14 to 15.11.19 of Chapter 15: Climate [APP-082] explain that the assessment of climate impacts is inherently cumulative through the inclusion of the proposed scheme and other locally committed transport schemes and developments within the traffic model on which the greenhouse gas (GHG) emissions calculations are based.

The national carbon budgets themselves are cumulative since they address carbon emissions from a wide variety of sources across the sectors of the economy.

The approach to climate change assessment utilised in Chapter 15 (which applies that set out in the DMRB LA 114) is itself cumulative in the sense that it includes background growth, other local committed development and the proposed scheme itself within the traffic model. It provides a total of the emissions for all these sources which can be set against and seen in the context of the UK carbon budgets.

The assertion that comparing Do-Something (DS) emissions versus Do-Minimum (DM) emissions to assess the net change in emissions as a result of the proposed scheme is somehow wrong is refuted, as both DMRB LA 114 and IEMA guidance make clear that the impact of a scheme should be assessed by comparing project related emissions with a 'future baseline' (in this case represented by the Do-Minimum scenario).

This approach is supported by the recent finding in the High Court for the expansion of Bristol Airport (Case No. CO/928/2022) relating to cumulative impacts on climate. In this instance, objectors claimed that the impact of all airport development in the UK

should be assessed cumulatively before permission was granted for the project in question. However, it was ultimately found that such an approach was not supported by policy and as such “There was no requirement to conduct a cumulative assessment of GHG emissions on the global climate and, in any event, it would not be feasible to do so”.

There is no single way to assess cumulative carbon impacts of a scheme. The methodology adopted by the Applicant is rational and has been accepted by the Secretary of State to be so in numerous DCO applications.

**REP2-044-007**

### **Sub-Question**

3.3 Update on R(Boswell) v Sec of State for Transport CO/2837/2022, CO/3506/2022 & CO/4162/2022 32 These are three claims before the High Court in which there is a ground (Ground 1 in each case) which relates to the issue of cumulative carbon assessment, as discussed above. 33 On 14 December 2022, the Honourable Mr Justice Holgate granted permission to apply for judicial review for Ground 1 in each of CO/2837/2022, CO/3506/2022 & CO/4162/2022.

### **Applicant's Response**

This is noted, the outcome of this litigation will be considered in due course when a decision is made.

**REP2-044-008**

### **Sub-Question**

4.1 The applicant misinterprets the IEMA guidance 34 The Applicant refers to the IEMA v2 guidance: for example at 15.5.15. However, the applicant ignores IEMA's guidance both for contextualising the assessment of carbon emissions, and for the assessment of significance. First, I explain the IEMA guidance in more detail.

### Applicant's Response

The Applicant does not consider that it has either ignored or misinterpreted the IEMA guidance.

**REP2-044-009**

### Sub-Question

4.2 Latest IEMA Guidance 35 In February 20223 , the Institute of Environmental Management & Assessment (IEMA) released version 2 of its “Assessing greenhouse gas emissions and evaluating their significance” guidance. Although the IEMA Guidance is not on a statutory footing, it is the primary guidance on assessing the significance of greenhouse gas emissions within the UK. Worldwide, IEMA is the professional home of over 18,000 environment and sustainability professionals from around the globe.

### Applicant's Response

The Applicant asserts that DMRB LA 114 is the primary guidance for assessing the significance of changes in GHG emissions as a result of UK highways schemes (as opposed to the IEMA guidance). However, the approach taken within Chapter 15: Climate [APP-082], which is based on DMRB LA 114, accords with the methodology for assessing significance set out in the IEMA Guidance which explains:

“The Crux of significance is not whether a project emits GHG emissions, not even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050.”

Thus, to assess the significance of any change in emissions associated with a project, an assessment has to be made against a baseline which contains a trajectory towards net zero.

The IEMA Guidance also explains that:

“When setting this impact into context to determine significance, it is important to consider the net zero trajectory in line with the

Paris Agreement 1.5°C pathway”

“The specific context for an individual project and the contribution it makes must be established through the professional judgment of an appropriately qualified practitioner drawing on the available guidance, policy and scientific evidence.”

“...it is down to the practitioner’s professional judgement on how best to contextualise a project’s GHG impact.”

“Where quantified carbon budgets or a net zero trajectory is lacking, a more qualitative or policy based approach to contextualising emissions to evaluate significance may be necessary.”

The IEMA Guidance also explains:

“A project that is compatible with the budgeted, science based 1.5°C trajectory (in terms of rate of emissions reduction) and which complies with up-to-date policy and ‘good practice’ reduction measures to achieve that has a minor adverse effect that is not significant. It

may have residual emissions but is doing enough to align with and contribute to the relevant transition scenario, keeping the UK on track towards net zero by 2050 with at least a 78% reduction by 2035/37 and thereby potentially avoiding significant adverse effects.”

The IEMA guidance therefore identifies that significance is to be assessed in the context of a trajectory which would meet the UK’s climate change commitments and against current policy and good practice. The mere fact that a project may result in residual emissions is insufficient to render its emissions significant if it is in alignment with the UK’s trajectory to net zero (which is set by the carbon budgets), as provided for at paragraphs 5.17-5.18 of the NN NPS.

**REP2-044-010**

**Sub-Question**

4.3 Contextualisation of GHG assessment

36 The IEMA guidance sets out that “the crux” of significance of GHG emissions is whether the project under consideration

“contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050”. Importantly, it goes on to state that the “context of a project’s carbon footprint determines whether it supports or undermines a trajectory towards net zero”. 37 Whether a project supports or undermines a trajectory towards net zero is a key condition in also determining the NPSNN 5.18 carbon test of whether “the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets”. If a project does not support a trajectory towards net zero, then it has a material impact on the ability of Government to meet its carbon reduction targets, and it fails the NPSNN 5.18 test. 38 The IEMA guidance continues: “The starting point for context is therefore the percentage contribution to the national or devolved administration carbon budget as advised by the CCC. However, the contribution of most individual projects to national-level budgets will be small and so this context will have limited value.” 39 The IEMA Guidance, therefore, goes on to set out that it is good practice to use sectoral, regional and local carbon budgets to contextualise the project’s GHG emissions. Local authority scale budgets are recommended including those from local authorities to the science-based local authority scale carbon budgets compiled by researchers at the Tyndall Centre at the University of Manchester. 40 The guidance also states that “It is good practice to draw on multiple sources of evidence when evaluating the context of GHG emissions associated with a project” 41 Guidance issued by the European Commission for the EIA Directive, from which the EIA regulation is transposed to the UK statute, also states<sup>4</sup> that the assessment of GHG emissions “should take relevant greenhouse gas reduction targets at national, regional and local levels into account, where available”, see Appendix F. 42 Further under “General principles of assessment”, the NPSNN at 4.4 states: “In this context, environmental, safety, social and economic benefits and adverse impacts, should be considered at national, regional and local levels. These may be identified in this NPS, or elsewhere.”

43 Both the NPSNN and the EIA Guidance support the recommendations of IEMA that contextualisation of carbon emission assessment should be carried out by reference to local, regional and sectorial budgets and targets.

### **Applicant’s Response**

As noted in paragraph 15.1.9 of Chapter 15: Climate [APP-082], the only statutory carbon targets are the carbon budget targets and the Net Zero 2050 target that are set at a national level i.e. they are targets for the UK as a whole. There are no sectoral targets (e.g. for transport), nor any targets set at a subnational geographic scale. This means that, for the purposes of assessing the likely

significance of the effects of the proposed development in accordance with the IEMA guidance, the only available trajectory is that contained in the national carbon budgets.

No other trajectory has been produced for a less than national scale which is demonstrably consistent with the national carbon budgets. Mathematical exercises in apportioning emissions derived from the national carbon budgets do not result in trajectories which can be appropriately used since, were the Government to undertake such an exercise, it may be that for policy reasons certain geographical areas might be weighted different than others.

This was recognised by Holgate J in R (Transport Action Network) v Secretary of State for Transport [2021] EWHC 2095 (Admin) at paragraph 89 where he explained:

“There is no requirement for the transport sector to achieve a pro-rotta share of the overall decarbonisation target.”

It is then not reasonably possible for the Applicant to produce an alternative baseline trajectory against which the significance of the proposed development's carbon emissions could be assessed since it is unable to make the policy judgments relating to the apportionment to a smaller geographical area. Accordingly, there is no reasonable basis upon which the Applicant can assess the potential likely significant effect of the proposed scheme's carbon emissions at anything other than at the national level.

As noted above, this ground of challenge was included in the challenges currently being brought by the Interested Party against the A47 Schemes. However, by an order dated 21 December 2022, Holgate J refused permission for the Interested Party's argument founded on the assertion repeated here that there is a legal duty to assess carbon impacts at a less than national scale, on the basis that it was not arguable.

**REP2-044-011**

### **Sub-Question**

4.4 IEMA Significance assessment 44 The IEMA Guidance addresses significance at Chapter 6. It acknowledges the objective of the Paris Agreement and the UK's net zero 2050 target together with 5 yearly carbon budgets defining a trajectory towards net zero. It then states: “To meet the 2050 target and interim budgets, action is required to reduce GHG emissions from all sectors, including

projects in the built and natural environment. EIA for any proposed project must therefore give proportionate consideration to whether and how that project will contribute to or jeopardise the achievement of these targets. ... The crux of significance therefore is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050. Often a project will cause a change in GHG emissions compared to the baseline which should be assessed, as discussed in Sections 5.3. When setting this impact into context to determine significance, it is important to consider the net zero trajectory in line with the Paris Agreement's 1.5°C pathway. The timing of reductions is critical due to the cumulative effect of GHG emissions in the atmosphere. Achieving net zero or very low emissions by 2025 instead of 2040 would avoid 15 years of cumulative heating. The specific context for an individual project and the contribution it makes must be established through the professional judgement of an appropriately qualified practitioner, drawing on the available guidance, policy and scientific evidence.” 45 The IEMA Guidance then seeks to categorise significance by reference to the UK's net-zero compatible trajectory and provides the chart below together with the following categories *###for image/table please see original document###*. 46 Any project assessed more than “Minor Adverse” (ie ‘Moderate’ or ‘Major’ Adverse) has a significant adverse effect. 47 IEMA explain that a “Minor Adverse” (and not significant) project is one: “that is compatible with the budgeted, science-based 1.5°C trajectory (in terms of rate of emissions reduction) and which complies with up-to-date policy and ‘good practice’ reduction measures to achieve that has a minor adverse effect that is not significant. It may have residual emissions but is doing enough to align with and contribute to the relevant transition scenario, keeping the UK on track towards net zero by 2050 with at least a 78% reduction by 2035 and thereby potentially avoiding significant adverse effects.” 48 Box 3 of the IEMA guidance provides a table on significance criteria, and for “Minor Adverse” states: “the project's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. A project with minor adverse effects is fully in line with measures necessary to achieve the UK's trajectory towards net zero”. Note that it is the project itself that must be fully in line with measures necessary to achieve the UK's trajectory towards net zero. “Minor Adverse” significance cannot be achieved by relying upon the national policy setting to meet the UK climate targets by actions elsewhere. I discuss the national policy compliance setting which prevails in the next section. 49 The IEMA guidance significance criteria for “Moderate Adverse” is: “the project's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type. A project with moderate adverse effects falls short of fully contributing to the UK's trajectory towards net zero.” 50 The IEMA guidance significance criteria for “Major Adverse” is: “the project's



GHG impacts are not mitigated or are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type. A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero."

### **Applicant's Response**

The approach to the assessment of significance set out in the IEMA guidance are well understood by the Applicant and its consultants.

In response to the statement that "Minor Adverse' significance cannot be achieved by relying upon the national policy setting to meet the UK climate targets by actions elsewhere" it is noted that:

- Estimated changes in road user GHG emissions make up the majority of the change in operational phase emissions associated with the proposed scheme.
- The magnitude of future year road user GHG emissions (both with and without the proposed scheme) will be heavily influenced by national policy (such as the Transport Decarbonisation Plan and the National Highways Net Zero Plan), which seek to decarbonise transport by 2050. Indeed, these policies will have a much greater influence on future year road user GHG emissions in the study area than the proposed scheme.

These national policies have been developed so as to assist in achieving the UK's trajectory to net zero (i.e. the carbon budgets), but they do not preclude further policy intervention by Government in the future if this proves to be necessary.

By not having a material impact on the achievement of carbon budgets, then the proposed scheme is in line with measures necessary to achieve the UK's trajectory towards net zero and it is in line with NPSNN.

**REP2-044-012**

### **Sub-Question**

4.5 The national policy compliance setting and significance assessment (including IEMA) of the scheme 51 The Examining Authority

is required to make a recommendation to the Secretary of State, and that must include either agreeing with the Applicant's assessment, disagreeing with the Applicant's assessment and/or recommending to the SoS that s/he consider particular unresolved (by the examination) issues in the assessment in making his/her decision. The following is intended to provide vital context for that recommendation process. 52 The Climate Change Committee's ("CCC's") June 2022 Progress Report<sup>5</sup> identified significant delivery risks or policy gaps for 38% of required emissions reductions to meet the Sixth Carbon Budget ie: around 61% of the required emissions reductions for the 6th carbon budget are not even secured "on paper" yet. In the surface transport sector about half of the required emissions reductions for the 6th carbon budget are not even secured "on paper" yet. 53 A key message in the report was that tangible progress on delivery is lagging the policy ambition. That is, policy alone will not deliver the deep and rapid emissions reductions needed to meet the Sixth Carbon Budget, and earlier targets like the Nationally Determined Contribution under the Paris Agreement to reduce emissions by 68% by 2030. Substantial, decisive and urgent action, and delivery is needed. More is provided on this CCC report in Appendix D. 54 The Secretary of State is required to reach a reasoned conclusion on the significant effects of the proposed development on the environment under Regulation 21 of the 2017 Regulations (the EIA Regulations). S/he must do so in full consideration of extent to which national policies on climate change, including those of his own department, have been secured or not. As above, he must take into account that the delivery of at least half the carbon emission reductions of his own policies under the TDP remain unsecured and in doubt.

### **Applicant's Response**

As noted previously, the key question that must be answered (in accordance with paragraph 5.18 of the NPSNN) is whether the change in emissions as a result of the proposed scheme of sufficient scale that it would have a material impact on the ability of Government to meet its carbon reduction targets.

While the conclusions and recommendations of the Climate Change Committee's latest Progress Report are noted, the Applicant submits that this does not affect the approach that should be taken to the assessment of changes in emissions or the conclusions reached within Chapter 15: Climate [APP-082]. There is nothing in this material which demonstrates that making the DCO would have a material impact on the ability of Government to meet its carbon reduction targets.

REP2-044-013

### Sub-Question

4.6 The key criteria of significance assessment is how secure is the delivery of the Net Zero Strategy 55 The applicant National Highways has, on other recent schemes, attempted to rely upon an assumed inevitable success of the NZS (and TDP) policies to retrofit meeting the NPSNN 5.18 test. The logic goes that whatever the emissions from the scheme, and their trajectory, national policy will deliver UK climate budgets and targets because these budgets, targets, and policy documents purporting to deliver them, merely exist. On this (false) logic, a scheme can increase emissions, and even if the reported emission increases have never been demonstrated by the Applicant to be compatible with the relevant budgets and targets, the carbon emissions are considered to be compatible with those budgets and targets, because they will be “inevitably” delivered. 56 However, the real question is the other way round. That is, not how the mere existence of a national legal and policy framework on climate change assists the scheme in attaining some notional, but undemonstrated, compliance to it, but rather how the scheme itself assists the delivery of that national legal and policy framework. I am reminded of John F. Kennedy's immortal words<sup>6</sup> “Ask not what your country can do for you – ask what you can do for your country”. What is of the most interest, then, is the question “to what extent does the project contribute, or undermine, securing the Net Zero Strategy and 6th carbon budget?”, and how does this establish whether the NPSNN 5.18 test is met or not. 57 It is far too premature for weight to be given to any claims based on the notion that the NZS, or the TDP, will inevitably succeed in securing the Government's carbon emissions reduction targets – this applies both to Environmental Statements, and to DCO decisions. Such a proposition is clearly not true or evidenced. 58 Following the CCC Progress Report, the SoS cannot assume that this proposition holds with any credibility. The CCC Progress Report has indeed shown that the success of the NZS and the TDP are by no means secured, and that no weight can be given to the proposition that they are. In fact, the evidence from the CCC Progress Report is that much more progress is required in securing the NZS trajectories for both surface transport and other parts of the economy for the Sixth carbon budget and net-zero. 59 The same delivery risk or policy gap was highlighted by the High Court in *R (Friends of the Earth) v Secretary of State for Business Energy and Industrial Strategy* [2022] EWHC 1841 (Admin) (“the Net-Zero case”)<sup>7</sup>. Holgate J. recorded the NZS's acknowledgement that the delivery pathways to achieve the 6th Carbon Budget are “highly ambitious” and face considerable “delivery challenges” and recorded that achievement

was subject to “a wide uncertainty range”. The judge noted at [204] and [211] that in approving the Net Zero Strategy, “one obviously material consideration which the Secretary of State must take into account is risk to the delivery of individual proposals and policies and to the achievement of the carbon budgets and the 2050 net zero target.” In finding the NZS unlawful, the judge described this as “the critical issue” when concluding that the information provided to the Minister when reporting on the NZS was insufficient to enable him to discharge his reporting obligations under section 14 of the Climate Change Act 2008. 60 Likewise, this delivery risk or policy gap should be at the front of the Secretary of State’s mind in considering the A120 scheme, and the assessment of significance, and, with respect, the ExA’s recommendations must facilitate proper consideration of the issue. And the key question is “does the project increases the delivery risk (to the Net Zero Strategy and 6th carbon budget), or does it reduces it?”

### **Applicant’s Response**

The Applicant disagrees completely with the statement that ‘The key criteria of significance assessment is how secure is the delivery of the Net Zero Strategy’. Instead, the Applicant submits that any judgement of the significance of the impacts of the scheme must be made based solely by reference to the potential effect of the proposed scheme upon the ability to achieve the Government’s climate change trajectory. It is not the task of a DCO examination to determine or assess the progress made in delivering national policy on climate change.

The Applicant does not rely on the level of reduction in GHG emissions which will be delivered by the policies set out in the Transport Decarbonisation Plan and National Highways Net Zero Plan within Chapter 15: Climate [App-082]. Instead, a sensitivity test is presented in Table 15.24 solely to demonstrate that the core assessment presented in Table 15.23 (on which the assessment of significance is based) is robust. This is because the policies contained within the TDP have the potential to result in a substantial reduction in road user GHG emissions in future years, which has not been accounted for in the assessment of significance presented in the ES. This in turn will likely reduce the magnitude of changes in road user GHG emissions as a result of the proposed scheme, however, this reduction is not relied upon (since it is recognised as being uncertain).

As noted in paragraph 15.11.8 of Chapter 15: Climate [APP-082], estimated changes in GHG emissions as a result of the proposed scheme (in Table 15.23) are negligible in comparison to relevant UK carbon budgets. On this basis, GHG emissions associated with the proposed scheme are considered unlikely to have a material impact on the ability of the UK Government to meet its carbon

reduction targets and are therefore considered to be 'not significant', in line with DMRB LA 114 and the NPSNN.

**REP2-044-014**

### **Sub-Question**

4.7 TDP Sensitivity Test 61 In Table 15.24, the Applicant present what it calls a "TDP sensitivity test". 62 I have already shown above that the CCC Progress Report has shown that the success of the NZS and the TDP are by no means secured, and that no weight can be given to the proposition that they are. 63 Further, very recently, a Freedom of Information release was made by the Department for Transport with details of the calculations underpinning the Government's transport decarbonisation plan to Professor Greg Marsden. Initial analysis by Professor Marsden shows that the FoI release provides further evidence that the TDP is not secured in any meaningful sense. Further evidence will be provided at later deadlines in relation to this. 64 As the so called TDP Sensitivity test purports to apply the "implementation of the TDP" (section 15.11.11), and that implementation is not secured, the TDP sensitivity test provides no evidence to support the conclusion that the emissions from the scheme are "not significant".

### **Applicant's Response**

It is recognised that there is uncertainty regarding the future trends in road user GHG emissions which will occur as a result of the implementation of the TDP. Indeed the TDP recognises this too and explains (page 44):

"Our projections present a range of possible outcomes, but all show significant reductions to 2050. Ultimately, this depends on how quickly zero emission technologies, fuels and efficiency measures are deployed, as well as the impacts of our policies to increase the numbers of journeys made by cycling and walking and on public transport. There are uncertainties on future travel behaviour from changes in how we work and travel, increased connectivity, better technology, and COVID-19....

there is a wide range of uncertainty around our current projections. Over time, we will continue to develop and refine the range of policies and proposals set out in this plan to ensure that the transport sector fulfils its contribution to our legally binding climate targets."

As such, the values presented within Table 15.24 of Chapter 15: Climate [APP-082], which are derived from the projections shown in Figure 2 of the TDP, are presented as a sensitivity test only and have not been used to inform the assessment of significance. These are currently the only estimates available of the potential impact of the implementation of the policies within the TDP.

It is reiterated that the estimates of road user GHG emissions presented in Table 15.23 of Chapter 15: Climate [APP-082] on which the assessment of significance is based, do not take any account of the impact of the TDP, and are therefore likely to be conservative.

The implementation of the policies in the TDP are expected to result in a substantial reduction in road user GHG emissions over time, as recognised by the Climate Change Committee (Progress in reducing emissions - 2022 Report to Parliament) 'Policy progress is relatively strong in the surface transport sector, with credible policies in place or being developed to meet over half of the required abatement'.

**REP2-044-015**

### **Sub-Question**

4.8 ExA's questions 65 I note the ExA's question 4.01 and 4.03 relating to the impact of carbon emissions from the scheme. I await the response by the Applicant before commenting further.

### **Applicant's Response**

The Applicant notes the Interested Party's intent to await a response to the ExA's question 4.01 and 4.03. These responses have now been issued by the Applicant and are presented in the Applicant's response to the Examining Authority's first round of written questions (ExQ1) [REP2-025].

**REP2-044-016**

<b>Sub-Question</b>
5 BCR CALCULATIONS 66 I note the ExA's question 4.02 and await the response by the Applicant before commenting.
<b>Applicant's Response</b>
The Applicant notes the Interested Party's intent to await a response to the ExA's question 4.02. This response has now been issued by the Applicant and is presented in the Applicant's response to the Examining Authority's first round of written questions (ExQ1) [REP2-025].
<b>REP2-044-017</b>
<b>Sub-Question</b>
6 INFORMATION REQUESTED 67 I request that the Applicant discloses the following information: The full 60-year carbon appraisal for operational emissions, including the DS and DM trajectories, and the full TAG 60-year Greenhouse Gases workbook
<b>Applicant's Response</b>
<p>A spreadsheet detailing estimated Do-Minimum and Do-Something operational road user GHG emissions over the 60-year carbon appraisal period is provided. These emissions are split by traded (i.e. emissions from petrol and diesel vehicles) and non-traded emissions (i.e. emissions associated with electric vehicles).</p> <p>A copy of the Chief Analyst Carbon Valuation Toolkit used to inform the economic valuation of the carbon impacts of the scheme is also provided.</p> <p>These documents are provided in Appendix A and Appendix B to this report, respectively.</p>

REP2-044-018

**Sub-Question**

6 INFORMATION REQUESTED 67 I request that the Applicant discloses the following information: The economic and carbon outputs from TUBA

**Applicant's Response**

The GHG emission results from TUBA have not been used as part of the proposed scheme's carbon impact appraisal. Emission factors derived from version 11 of Defra's Emission Factors Toolkit (EFT v11) have been used to estimate road user GHG emissions for consistency with other National Highways projects. TUBA is not typically used to estimate road user GHG emissions for appraisal purposes because, as noted in paragraph 4.3.1 of TAG Unit A3 Environmental Impact Appraisal, TUBA estimates fuel consumption based on the average speed for an entire journey, which in some circumstances may result in biases.

TUBA was used in the scheme appraisal to estimate other economic impacts such as journey time savings and impacts on vehicle operating costs. These monetised impacts, along with those estimated using different economic tools, are presented in detail in Chapters 3 to 5 of Combined Modelling and Appraisal Report - Appendix E: Economic Appraisal Package - Appraisal Summary Table and Supporting Worksheets Report [APP-266]. Overall, the scheme is expected to provide £775m of economic benefits. Chapters 9 and 10 of the Combined Modelling and Appraisal Report [APP-261] provide further information on the methodologies used in this appraisal.

REP2-044-019

**Sub-Question**

7 CONCLUSIONS 68 The ES is unlawful as there is no cumulative assessment of carbon emissions. Should this issue not be addressed by the Applicant, then the Examining Authority is respectfully requested to consider whether it is of the view that it is



necessary for the ES to contain the necessary further information. The Examining Authority is requested to give consideration to Reg 20 (1) of the 2017 Regulations which provides the Examining authority with the option to 'suspend consideration of the application' if it is necessary for the ES to contain further information

### **Applicant's Response**

The Environmental Statement is not unlawful for the reasons explained above and as such there is no need for further information on this point to be provided or for the Examining Authority to act under Regulation 20 of the EIA Regulations.

**REP2-044-020**

### **Sub-Question**

69 The ES is effectively missing the data that IEMA contextualisations provide to determine both the IEMA significance criteria and the NPSNN 5.18 test in the "net zero" world of climate legislation and policy.

### **Applicant's Response**

The Applicant asserts that no data are missing from the Environmental Statement and that the information presented is sufficient to allow the impact of the proposed scheme on climate to be assessed in accordance with paragraph 5.18 of NPSNN and the IEMA guidance.

**REP2-044-021**

### **Sub-Question**

70 The NPSNN 5.18 test performed by the Applicant without any IEMA contextualisation produces a misleading and incorrect result (assessment): it arrives at the incorrect significance assessment (of "not significant") in relation to the new policy and legislation.

Beyond being technically wrong, it is legally in error as, by deliberately omitting new evidence bases, such as the Net Zero Strategy trajectories which are part of the legally required plan to deliver the Climate Change Act, it cannot be said to rationally assess the latest legal and policy framework.

### **Applicant's Response**

As explained above, appropriate contextualisation has been provided in accordance with the IEMA guidance.

The Applicant submits that the assessment presented is not misleading or incorrect, technically wrong or legally in error, as it has been produced in accordance with relevant guidance (namely DMRB LA 114), and with reference to current policy (namely the NPSNN) and guidance (IEMA).

Furthermore, changes in emissions associated with the proposed scheme have been assessed against carbon budgets, including the 6th carbon budget, which represent the only legislated trajectory towards achieving net zero by 2050 in the UK. There is no reliable trajectory that can be used at a less than national scale.

**REP2-044-022**

### **Sub-Question**

71 The Examining Authority is also respectfully requested to consider if the ES should be updated with this information, so that a trustworthy and correct significance assessment can be made. 72 The scheme should therefore be recommended for refusal.

### **Applicant's Response**

The Applicant considers that it is not necessary to update the Environmental Statement with information from IEMA contextualisations (IEMA, 2022). The climate assessment presented in the Environmental Statement follows the approach set out in the Design Manual for Roads and Bridges (DMRB) LA 114 Climate. The assessment of significance of the effect of greenhouse gas emissions on climate also accords with the methodology set out in IEMA, as explained in the response to RR-156-001 item 4

[REP1-002].

REP2-044-023

**Sub-Question**

8 APPENDIX A: LEGAL FRAMEWORK: ENVIRONMENTAL IMPACT ASSESSMENT 73 The Scheme is a Nationally Significant Infrastructure Project (“NSIP”) within the meaning of s.14 and s.22 Planning Act 2008 (“PA 2008”) and is EIA development. EIA of NSIPs is governed by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the 2017 Regulations”).

74 The EIA process, including the preparation of an ES, must identify, describe and assess (those being separate statutory steps) in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on various prescribed factors, including climate (for example the nature and magnitude of greenhouse gas emissions): see reg. 5(1), 5(2)(c) and Schedule 4, para. 5(f) of the 2017 Regulations. 75 By reg. 14(2) [CB/344-45], the ES must include, at least, the information set out in reg. 14(2)(a) to (f). This includes: “(b) a description of the likely significant effects of the proposed development on the environment [... and] (f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.” 76 By reg. 14(3)(b). an ES must: “include the information reasonably required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment;” 77 In turn, paragraph 5 of Schedule 4 to the 2017 Regulations requires the environmental statement to include: “A description of the likely significant effects of the development on the environment resulting from, inter alia: [...] (e) the cumulation of effects with other existing and/or approved projects [...] (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. [...] The description of the likely significant effects on the factors specified in regulation 5(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development ...”. 78 When deciding whether to make an order granting development consent for relevant development the Secretary of State must, by reg. 21(1) [CB/346]: “(a) examine the environmental information; (b) reach a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account the examination referred to in sub-paragraph (a) and, where appropriate, any supplementary

examination considered necessary; (c) integrate that conclusion into the decision as to whether an order is to be granted [...]” 79 ‘Environmental information’ is defined by reg.3(1) as: “the environmental statement [...], including any further information and any other information, any representations made by any body required by these Regulations to be invited to make representations and any representations duly made by any other person about the environmental effects of the development and of any associated development...” 80 It follows that the conclusion on whether development consent is granted must be based on an assessment of the significant effects of the proposed development on the environment which must in turn take into account (among other things) a description of the likely significant effects of the development on the environment resulting from the cumulation of effects with other existing and/or approved projects. That involves three distinct stages: (1) identification and description of those cumulative effects, (2) assessment of their significance, and (3) integration of that into the decision on whether development consent should be granted. 8.1 Accepted application—effect of environmental statement being inadequate 81 Reg 20 (1) provides the Examining authority with the option to ‘suspend consideration of the application’ if it is necessary for the ES to contain further information. This situation would arise if the ES was found to be inadequate because it failed to make an adequate assessment of the significant effects of the proposed development on the environment, for example, because the ES did not include a description of the likely significant effects of the development on the environment resulting from the cumulation of effects with other existing and/or approved projects. 82 The necessary steps are provided at Reg 20 as follows: “(1) Where an Examining authority is examining an application for an order granting development consent and paragraph (2) applies, the Examining authority must— (a) issue a written statement giving clearly and precisely the reasons for its conclusion; (b) send a copy of that written statement to the applicant; and (c) suspend consideration of the application until the requirements of paragraph (3) and, where appropriate, paragraph (4) are satisfied. (2) This paragraph applies if— (a) the applicant has submitted a statement that the applicant refers to as an environmental statement; and (b) the Examining authority is of the view that it is necessary for the statement to contain further information. (3) The requirements mentioned in paragraph (1) are that the applicant must— (a) provide the Examining authority with the further information; [...]”

### **Applicant’s Response**

Appendix A of the Interested Party’s Written Representation provides a summary of matters to be considered in the environmental impact assessment and presented in the Environmental Statement with particular reference to climate and greenhouse gas

emissions together with aspects of the role of the Secretary of State and examining authority. The applicant has no concerns regarding the summary presented in Appendix A of the Interested Party's Written Representation.

As noted previously, the assessment undertaken and presented within Chapter 15: Climate [APP-082] is considered inherently cumulative.

The Applicant has also explained in detail in its Response to the Interested Party's Relevant Representation [REP1-002] how the Interested Party's argument that the Environmental Statement is deficient is based on a misreading of the 2017 Regulations.

The Environmental Statement is an Environmental Statement within the meaning of the 2017 Regulations. It complies with the requirements of those Regulations.

**REP2-044-024**

### **Sub-Question**

9 APPENDIX B: SCIENCE-BASED CARBON BUDGETS AND COMPLIANCE WITH THE PARIS AGREEMENT 83 This appendix is provided to give some overall context to carbon budgets, and the difference between policy-based carbon budgets, such as those in the UK carbon budgets, and science-based carbon budgets, such as the Tyndall Centre budgets. 9.1 What is a carbon budget and how is it produced? 84 A financial budget is defined as 'a plan to show how much money a person or organisation will earn and how much they will need or be able to spend'<sup>8</sup>. A carbon budget is similar, but instead of money, it sets out "the cumulative amount of carbon dioxide (CO<sub>2</sub>) emissions permitted over a period of time to keep within a certain temperature threshold<sup>9</sup>." Unlike money, for carbon budgets, there are no overdraft facilities, nor national deficits, not quantitative easing mechanisms from central banks. Once a CO<sub>2</sub> budget is spent, it cannot be recovered, and the laws of physics determine the consequences for the planet and for humanity<sup>10</sup>. Carbon budgets are a tool to help reveal the truth of this situation. 85 The "laws of physics" can now provide increasingly accurate modelling of the global and local carbon budgets. In the last five years the reports of the Intergovernmental Panel on Climate Change (IPCC) have highlighted that our political institutions, businesses, and society have not started to respond to the climate emergency with the urgency required. Simply put humanity is living outside of our budget. 86 Collectively, we now know that this decade is the most crucial decade for reversing 200 years of carbon polluting activities, reversing the rash, profligate

spending of our collective carbon budget, and building a new future based on a non-polluting global society. It is crucial that we address this emergency using every tool possible, and this includes carbon budgets and their capacity to point to where we are not doing enough, as captured by IEMA as “doing enough to align with and contribute to the relevant transition scenario, keeping the UK on track towards net zero by 2050 with at least a 78% reduction by 2035 [footnote 37][and thereby potentially avoiding significant adverse effects.”

9.2 Relationship of a carbon budget and the 2015 Paris Agreement 87 The Paris Agreement 2015 is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016<sup>11</sup>. The UK is a signatory to the agreement. Its goal is to limit global heating to well below 2°C degrees, preferably to 1.5 °C, compared to pre-industrial levels. 88 Scientists have established models that calculate how much more carbon dioxide<sup>12</sup>, at various statistical probabilities, may be emitted globally into the atmosphere before breaching various temperatures of global overheating – eg: how many billions of tonnes (or Gigatonnes, GtCO<sub>2</sub>) before breaching 1.5 degrees (at 66% chance), how many billions of tonnes before breaching 2.0 degrees etc (at 50% chance). These are referred to as carbon budgets, and I have previously explained them above as a bank account analogy but with no overdraft, deficit, or quantitative easing facilities available.

9.3 The difference between policy-based and science-based carbon budgets 89 It is important to understand the difference between science-based carbon budgets and political targets like the UK net-zero target. Net-zero by 2050 can be achieved by many different paths or trajectories of annual carbon emissions, and the carbon emitted is basically the area under the curve. Annual emissions cuts may be applied late (known as “backloaded”) or early (known as “frontloaded”) depending on policy decisions. Policy that delivers backloaded, or less steeply front-loaded, cuts will have a much greater quantum of carbon emissions emitted under the curve on the way to get to net-zero, and therefore also require larger carbon budgets (from the fixed global budget).

90 Science-based carbon budgets by contrast aim to define a curve or trajectory which meet the criterion of fitting within the global carbon budget. That is science-based carbon budgets follow the path necessary to meet a temperature target aligned to the Paris agreement.

91 The UK Committee on Climate Change publish paths and budgets, and Parliament has placed them in statute, but their ability to meet the criterion of the Paris temperature target has not been demonstrated scientifically – although CCC may genuinely endeavour to meet that criterion. In fact, the CCC budgets, and assumptions, and hence UK carbon budgets, are increasingly challenged by scientists, see below.

92 It is further worth noting that a recent report<sup>13</sup> from Climate Crisis Advisory Group (CCAG) has recently said that there is no remaining carbon budget for the 1.5°C Paris temperature target and policy should be directed towards net-negative carbon emissions as soon as possible. The report says: “The CCAG is clear that the current shift in global emissions is not sufficient to avoid global disaster, and there is no ‘remaining Carbon Budget’. If proper account is taken of

all greenhouse gases, and their CO<sub>2</sub> equivalence, the 450ppm threshold has already passed, contradicting the widespread notion of a 'carbon budget' that could still be spent whilst remaining below 1.5°C temperature rise." The CCAG was founded, and is chaired, by the eminent scientist Professor Sir David King, Fellow the Royal Society (FRS), and former UK Government's Chief Scientific Advisor from 2000 to 2007. CCAG comprises prominent climate scientists. It was created in response to the Climate Emergency in 2021, as a new advisory group to help inform the public, governments and financial institutions providing them with the most comprehensive science, and more crucially, guiding them towards action for climate repair. CCAG's important scientific commentary on the climate crisis can be made by their small group on a faster cycle than the IPCC.

9.4 Science-based carbon budget assessment of compliance against UK obligations under the Paris agreement

93 To understand what emission reductions should be made in UK local authority areas to make a 'fair' contribution<sup>14</sup> towards the Paris Climate Change Agreement, scientists at Manchester Tyndall Centre have taken IPCC global carbon budgets and produced the so-called SCATTER budgets for UK local authorities. SCATTER stands for Setting City Area Targets and Trajectories for Emissions Reduction project and was funded by the Department for Business Energy and Industrial Strategy (BEIS). It developed a methodology for Local Authorities to set carbon emissions targets that are consistent with United Nations Paris Climate Agreement<sup>15</sup>.

94 These science-based budgets translate the "well below 2°C and pursuing 1.5°C" global temperature target, and the equity principles enshrined in the United Nations Paris Agreement, to a national UK carbon budget which is then split between sub-national areas using different allocation regimes.

95 The assumptions for this transformation from global to local budgets is given in two sources: a) a 2020 Climate Policy paper<sup>16</sup>, widely referred to as the "Factor of Two" paper b) the "full" report from the Tyndall Carbon Budget Tool for UK Local Authorities, widely referred to SCATTER budgets. These two sources are authored by the same research group and are internally consistent. The "Factor of Two" paper is a landmark in 2020 in appraising national carbon budgets.

9.5 Comparison to carbon budgets/targets derivable from the Climate Change Committee

96 Following, the Climate Change Committee (CCC) sixth Carbon Budget (6CB) report, the UK has enshrined in law and policy its headline recommendation is for the UK to deliver a reduction in net annual emissions of 78%, against a 1990 baseline, by 2035. The previous UK ambition was targeting an 80% reduction against 1990 figures by 2050 under the original Climate Change Act, so this represents a halving of the time to get to around 80% emission cuts (against 1990 baseline) from 2020.

97 However, the CCC do not show anywhere how the 6th Carbon Budget (6CB) can be derived directly by a stepwise downscaling from a scientifically established global carbon budget (in contrast to the Manchester Tyndall research and references above which do demonstrate this). The derivation of the 6CB is focussed more on meeting the national, politically set, net zero-target of 2050 via an array of policy interventions rather than fitting to a specific carbon budget (relating to

the back-loading and front-loading point above). The point here is that there are many possible pathways to reach net-zero, and each will have different accumulated carbon emissions under the curve – so one can reach net-zero having added more or less emissions to the global atmosphere, some pathways may blow our carbon budgets. The science-based carbon budget approach is designed to specify a pathway which keeps within the carbon budgets. 98 Generally, the difference between the Tyndall and CCC carbon budgets is that the Tyndall ones are 2 – 3 times smaller (and tighter). As shown above, the Tyndall budgets have rapid decarbonisation from 2020 in order to meet the overall budget (area under the curve). The Tyndall trajectory is derived from the IPCC budget for 1.7oC 17, supporting the point from CCAG that there is no remaining budget for 1.5oC (it is simply not possible to calculate the Tyndall budgets for 1.5 oC 18). So the Tyndall budgets are consistent with IPCC global carbon budgets of 1.7oC degrees of global heating. This is not 1.5oC because, essentially, there are not enough degrees of freedom in the system to produce budgets consistent with 1.5oC, the lowest end of the Paris target<sup>19</sup>. 99 The graph above is taken from 2020 and illustrates the difference between CCC and Tyndall carbon budgets. In simple terms, the carbon budget is the area under the annual emissions trajectory curve. Issues such as the shape of the curve, front-loading or back-loading emissions reductions can produce vastly different curves and corresponding areas under the curve. 100 So it is possible for the UK to meet net-zero at 2050 via vastly different overall carbon budgets – the green line in the graph meets the global budget for 1.7 oC, the blue CCC pathway overshoots this temperature target. Therefore “net-zero”, in itself, is not a good measure of compliance with the Paris agreement temperature target whereas a science-based carbon budget is. 101 Note, the details of the carbon accounting differ, so it is not easy to get a like-for-like comparison between the science-based carbon budget from Manchester Tyndall and the Climate Change Committee budgets. For further information, see footnotes<sup>21</sup>. 102 Simply put the UK carbon budgets are based on the policy-driven target of net-zero by 2050. However, such a policy-driven target does not consider the overall emissions generated in how the UK gets to net-zero<sup>22</sup>. 103 A key issue is the “area under the curve” in the emissions trajectories. Science-based carbon budgets such as those from the Tyndall Centre, research that the UK Department of Business, Energy and Industrial Strategy supported, demonstrate that the area under their curve of their emissions trajectories is consistent with the global carbon budgets from the Intergovernmental Panel on Climate Change (IPCC). 9.6 The risk in delivering Climate Change Committee (national) budgets 104 Even on their own terms, these policy-based targets are far from guaranteed to be delivered with the state of current climate policy. This is evidenced by the recent legal case<sup>23</sup> on the UK Net Zero Strategy (NZS) where it was found that the policies had not been properly quantified, and that the UK Government had not considered several things, especially the risk to delivery of the policies in their strategy for meeting the sixth carbon budget. The UK Government have accepted the NZS is unlawful<sup>24</sup> and are not



appealing. 105 Further on 29th June 2022, the Climate Change Committee (CCC) submitted its “Progress in reducing Emissions 25 - 2022 Report to Parliament” and found that “credible plans” existed for only 39% of the required emissions reduction to meet the UK Sixth Carbon Budget. This indicating a clear policy shortfall in policy on Climate Change across the UK, see Appendix D. 106 Over the period to 2050 in the UK, the Tyndall Centre found that at least two times as much carbon would be produced comparing the UK carbon budgets with their own science-based targets<sup>26</sup>. If the science-based budgets from Tyndall Centre can only deliver a UK contribution towards 1.7oC at best, then the CCC budgets for both the UK and Scotland are only consistent with a much-greater global heating temperature target with more than twice as many emissions being produced by 2050. Note the UK’s obligation under the Paris Agreement is to “keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius”. 107 In short, science-based targets give a far more accurate picture for assessment and risk analysis than nationally legislated carbon budgets. This especially applies to assessing whether infrastructure is consistent with the UK’s commitments under the Paris Agreement. The best practice IEMA guidance also strongly encourages the use of science-based carbon budgets for local and regional contextualisation. 108 The key takeaway at this point is that to assess whether the scheme complies with the UK net-zero target, then comparisons are made with the national budgets and the Net Zero Strategy. However, to assess whether the scheme complies with the UK’s international obligations under the Paris agreement, then comparisons need to be made with science-based carbon budgets and local/sector scaled versions of them, such as the Tyndall budgets.

### **Applicant’s Response**

The Applicant notes the information presented in Appendix B of the Interested Party’s Written Representation but does not consider the information presented relevant to the assessment of the climate impacts of the proposed scheme.

As noted in paragraph 15.5.17 of Chapter 15: Climate [APP-082], the Government has adopted the carbon budgets in order to meet the goals of the Paris Agreement. Thus, a proposed development which is compatible with the 2050 target and interim carbon budgets is consistent with the approach to addressing the adverse effects of climate change. This aligns with the approach to significance set out in the IEMA Guidance (IEMA, 2022). The approach set out in the NPSNN continues to be relevant in light of international obligations and domestic obligations related to reducing carbon emissions that have come into force since the NPSNN

was designated.

The High Court has already rejected as unarguable the proposition that there is a legal obligation to assess schemes against trajectories produced by third parties, e.g. the Tyndall centre. The IEMA Guidance does not require this.

Also relevant is the recent decision in the High Court in the Bristol Airport case (Case No. CO/928/2022) relating to cumulative impacts on climate. In this instance, objectors claimed that the impact of all airport development in the UK should be assessed cumulatively before permission was granted for the project in question. However, it was ultimately found that such an approach was not supported by policy and as such “There was no requirement to conduct a cumulative assessment of GHG emissions on the global climate and, in any event, it would not be feasible to do so”. Further the Court concluded that trajectories derived at a less than national scale had no basis in law or policy.

**REP2-044-025**

### **Sub-Question**

11 APPENDIX D: CLIMATE CHANGE COMMITTEE (CCC) 2022 PROGRESS REPORT 109 On 29th June 2022, the Climate Change Committee (CCC) submitted its “Progress in reducing Emissions - 2022 Report to Parliament” (referred to as CCC \_2022\_PROG27). 110 The report finds that overall “credible plans” exist for only 39% of the required emissions reduction to meet the Sixth Carbon Budget (CCC \_2022\_PROG/page 22). This means that 61% of the required emissions reductions for the 6th carbon budget are not even secured “on paper” yet. 111 CCC \_2022\_PROG/Figure 3.13 reproduced below shows the relevant data for “credible plans” and other categories for the surface transport sector. 11.1 Half the emission reductions for surface transport to meet the 6th carbon budget are not secured 112 The spreadsheet “Progress in reducing emissions – 2022 Report to Parliament – Charts and data” (referred to as CCC\_2022\_DATA28) provides the breakdown of the data behind Figure 3.13 above from the report. Delivery of the “Government pathway” requires a reduction of 99.03 MtCO<sub>2</sub>e against the “Baseline” of 120.23 MtCO<sub>2</sub>e by 2037. CCC identify credible plans for 51.97 MtCO<sub>2</sub>e of this (ie only 52.5% of the total). So in the surface transport sector about half of the required emissions reductions for the 6th carbon budget are not even secured “on paper” yet, revealing the true extent of the “delivery gap” in transport decarbonisation policy from the Government’s own advisors on climate change delivery. 113 In identifying

barriers to closing the delivery gap, the report is clear in identifying that there is currently no vision from the Government for traffic reduction, as it states at page 130 “However, the Government has not yet set out a clear vision of the extent of traffic reduction that is desirable, nor a coherent set of policies to deliver this.” \_\_ 114 On page 139, the report identifies that “the Scottish Government has committed to reducing overall car mileage by 20% by 2030” and that “the Welsh Government has also recently committed to reducing the car miles driven per person by 10% by 2030”. By contrast in England, £24 billion is still allocated for Roads Investment Scheme 2 (RIS2) and “this still provides considerable funding for new roads which will induce increased demand”. 115 In the section “Recommendations to the DfT” (CCC \_2022\_PROG/page 571), these recommendations are included: “Set out, through Active Travel England, guidance for what actions local authorities should take to realise the Transport Decarbonisation Plan's commitment to half of all journeys in towns and cities being walked or cycled by 2030. This should be accompanied by the required funding.” “Set out measurable targets for the contribution that reducing car travel will play in delivering transport's Net Zero pathway.” “Reform the Transport Appraisal Guidance to ensure that it enables practitioners to make decisions that are consistent with the Net Zero pathway. DfT should consider whether a "vision and validate" approach to the future transport system might be more appropriate than a "predict and provide" one in this context.” 116 These are just some of the recommendations which require solid and quantified plans to start to address the identified delivery gap in the surface transport policies in the NZS and the TDP. The recommendations from the Government’s advisors also make clear that policies to reduce traffic and set measurable targets for it do not exist, and that a new approach to road scheme appraisal is urgently needed.

### **Applicant’s Response**

The Applicant is aware of the conclusions and recommendations of the Climate Change Committee's 2022 Progress Report, in particular the challenges around managing travel demand.

It is noted, however, that the Climate Change Committee states that ‘Policy progress is relatively strong in the surface transport sector, with credible policies in place or being developed to meet over half of the required abatement’.

**REP2-044-026**

### Sub-Question

12 APPENDIX E: Transport Decarbonisation Plan, Figure 2 117 On the 14th July, 2021, the Government released its Transport Decarbonisation Plan<sup>29</sup> (TDP). 118 A graph of projections for decarbonising domestic transport is given in the TDP at Figure 2 and reproduced here [for image/table please see original document](#). 12 APPENDIX E: Transport Decarbonisation Plan, Figure 2 117 On the 14th July, 2021, the Government released its Transport Decarbonisation Plan<sup>29</sup> (TDP). 118 A graph of projections for decarbonising domestic transport is given in the TDP at Figure 2 and reproduced here:

### Applicant's Response

The information presented in Appendix E of the Interested Party's Written Representation is noted.

**REP2-044-027**

### Sub-Question

13 APPENDIX F: EIA GUIDANCE DOCUMENTS 120 This section lays out guidance relating to the EIA Regulations. 121 Following the enactment of the reviewed EU EIA Directive "DIRECTIVE 2014/52/EU" in 2014, three guidance documents were published in 2017 on the screening<sup>30</sup>, scoping<sup>31</sup> and EIA report writing<sup>32</sup> stages. 122 Each of these 2017 guidance documents state that they "aim[s] to help Developers and consultants alike prepare good quality Environmental Impact Assessment Reports and to guide competent authorities and other interested parties as they review the Reports. It focuses on ensuring that the best possible information is made available during decision-making". 123 Under "Climate change mitigation: Project impacts on climate change" 33 on page 39 of the EIA report writing guidance, it states: "The assessment should take relevant greenhouse gas reduction targets at the national, regional, and local levels into account, where available. The EIA may also assess the extent to which Projects contribute to these targets through reductions, as well as identify opportunities to reduce emissions through alternative measures." 124 Whilst for cumulative effects<sup>34</sup> at page 50: "[They] can arise from ... the interaction between all of the different Projects in the same area;" "... can occur at different temporal and spatial scales. The spatial scale can be local, regional or global, while the

frequency or temporal scale includes past, present and future impacts on a specific environment or region.” (our emphasis) 125 The guidance is promoted by the EU and identifies that Competent Authorities reviewing the EIA Report and using the information for decision-making, as one of its target audiences.<sup>35</sup>

From the same official webpage for the EIA Directive, further 2013 guidance is provided on “Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment”. This guidance predates the 2014 Directive and was produced during the time of the 2011 EIA Directive “DIRECTIVE 2011/92/EU”. The guidance was implemented for the European Commission under Study Contract No 07.0307/2010/580136/ETU/A3 with Members of the Commission Group of EIA/SEA National Experts and staff from three Directorate-General of the Commission<sup>36</sup>. It reflects the view of the Commission services of the best EIA practice, including those with transposed national regulations like the UK. 126 Section 4.4.2 of this guidance states: “Judging an impact’s magnitude and significance must be context-specific. For an individual project — e.g. a road project — the contribution to GHGs may be insignificant on the global scale, but may well be significant on the local/regional scale, in terms of its contribution to set GHG-reduction targets.” (my emphasis) I am concerned that the Applicant claims that the results of its appraisal of differential emissions against national budgets reveals an insignificant effect against national carbon budgets. The guidance rightly suggests that carbon emissions assessed at a local/regional scale may well be significant, as shown in my Contextualisations in the main text. 127 I have not been able to find any UK specific guidance relating to the EIA Regs that would provide different advice to the existing guidance on the official EU Commission webpage for the EIA Regs. It is therefore rational to apply guidance which was written to “focus[es] on ensuring that the best possible information is made available during decision-making” under the EIA Directive within the UK. Failure to not even consider such guidance, as is the case in the Environmental Statement, would be irrational.

### **Applicant’s Response**

The Applicant notes that the Interested Party references various EIA guidance documents, including guidance prepared by the EU. The 2017 EIA Regulations transposed the EU Directive 2014/52/EU into English Law. As such EU guidance produced in 2017 is still valid in understanding the implementation of EIAs in the UK.

In undertaking the EIA for the proposed scheme, the principal guidance document used was the Department of Transport’s Design

Manual for Roads and Bridges, which includes LA 114 on climate. Other national and international guidance is taken into account by the authors of the Environmental Statement. The Applicant points out that while there is no legal requirement to comply with guidance per se, including guidance produced by the EU, the Applicant considers that the Environmental Statement is compliant with the UK legislation and good practice guidance.

**REP2-044-028**

### **Sub-Question**

14 APPENDIX G: Relevant Representation, Dr Andrew Boswell (as submitted 15 October 2022) Dr Andrew Boswell, Climate Emergency Planning and Policy I am an independent environmental consultant specialising in climate science, policy, and law, and I object to the A12 Chelmsford to A120 Widening Scheme: (1) Chapter 15 of the ES presents estimates of the greenhouse gas (GHG) emissions for the assessment of significance of the scheme against the fourth, fifth and sixth carbon budgets. Only “scheme-only” estimates are given and assessed (eg the bottom line of Table 15-23), and this does not comply with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the 2017 Regulations”). One of the requirements of the 2017 Regulations is that the applicant must provide an environmental statement (“ES”) including the cumulative impacts of the project and other existing and/or approved projects on climate change. The requirement can only be discharged by providing a separate cumulative assessment in Chapter 15. (2) The so-called “TDP Sensitivity Test” given at Table 15.24 is not based on any standard, documented or official guidance. It is an “ad-hoc” method which is not even a sensitivity test in the real meaning of the term. (Fudge factor is a more precise description). (3) The Institute of Environmental Management & Assessment (IEMA) “Assessing greenhouse gas emissions and evaluating their significance” guidance (February 2022) states that best EIA practice for GHGs is to use sectoral, regional and local carbon budgets to contextualise the project’s GHG emissions. The IEMA guidance says comparison against national budgets is only of “limited value”. Chapter 15 does not follow this guidance, and instead makes a sole assessment of significance against the entire UK economy carbon budget. (4) The very large construction stage emissions of 428,626 tCO<sub>2</sub>e [Table 15-21] have been omitted from the cost side of the BCR. These would amount to over £100,000,000 at the 2025 government carbon valuation increasing the cost side. The value of cumulative operational carbon emissions from the scheme has not been used in the benefit side of the BCR calculations, because no cumulative assessment has been done. (5) Section 15.8.6 highlights

that Essex already has much greater emissions for transport (47.8%) than the East of England or the UK. The scheme has large construction emissions (428,626 tCO<sub>2</sub>e) in the 4th carbon budget, and introduces new emissions into Essex from 2027 at levels of >140,000 tCO<sub>2</sub>e for both the 5th and 6th carbon budgets. These new emissions are so significant that they would have material impact on the ability of the Government to meet its carbon reduction targets (NPSNN 5.18 significance test). (6) We are in a climate emergency, and recent record-breaking global heating and drought in the UK, Europe and around the world demonstrate that it is a crisis of ever-increasing dimensions. No scheme increasing carbon emissions on this scale, having a material impact of meeting UK carbon budgets, can be justified within the planning balance. Further, it is not morally acceptable for such a scheme to go ahead and add to increasing climate chaos.

### Applicant's Response

The Applicant notes the Interested Party's comments. A response to this relevant representation is provided at [REP1-002].

**REP2-044-029**

### Sub-Question

15 APPENDIX H: RESUME, Dr Andrew Boswell I am a retired scientist and environmental consultant, working at the intersection of science, policy, and law, particularly relating to ecology and climate change. • Undergraduate degree, BSc 1977, 1st class honours, Chemistry, Imperial College London • Postgraduate, DPhil 1981, Oxford University, supervisor Professor R J P Williams, FRS, in Structural Biology, protein binding sites and dynamics • 1984-1993, software engineering, testing, simulation systems for high-level design and logic synthesis of Very Large Scale Integrated (VLSI) circuits • MSc, 1994, Parallel Computing Systems, University of the West of England • 1995-2006, Manager high-performance and computing service across science departments at the University of East Anglia (UEA). System management and scientific modelling including climate modelling. • 2005-2017, Green Party Councillor and sometimes group leader, Norfolk County Council and Norwich City Council • 2017-2022, Climate Emergency Policy and Planning. CEPP is my own consultancy to promote the necessary rapid response to the Climate Emergency in mainstream institutions, such as local authorities and government, through the lenses of science, policy, and litigation. Expert contributor to the

proposed UK Climate and Ecology Bill<sup>37</sup>. Foundation for Integrated Transport<sup>38</sup> fellowship on “Exposing the flaws in carbon assessment and transport modelling for road schemes.” Interested party and expert witness on many current UK infrastructure planning examinations<sup>39</sup>. Climate and science-based litigation on three schemes<sup>40</sup>: three judicial reviews launched in the London High Court in summer and autumn 2022.

### Applicant's Response

The Applicant notes the Interested Party's resumé.

## DWD Property Planning on behalf of Countryside Zest (Beaulieu Park) LLP

REP2-046-001

### Sub-Question

Date: 13/02/2023 Our Ref: 6364E Your Ref: TR010060 Dear Planning Inspectorate, PLANNING ACT 2008 – WRITTEN REPRESENTATIONS (DEADLINE 2) RE: A12 WIDENING SCHEME BETWEEN JUNCTIONS 19 (BOREHAM INTERCHANGE) AND 25 (MARKS TEY INTERCHANGE). We act on behalf of Countryside Zest (Beaulieu Park) LLP 'CZ', a joint venture made up of Countryside Partnerships and L&Q, who are the landowner and developer of the Beaulieu Outline Planning Permission (OPP), which was granted in 2014 for 3,600 homes, new roads, schools, neighbourhood centre and business park (ref. 09/01314/EIA). As noted in our previously submitted Relevant Representation on 10/11/2022, CZ continue to support the principle of the Proposed Development which includes the widening where necessary of the A12 between Chelmsford and the A120 from two lanes to three in each direction, as well as ancillary improvements to a number of junctions. CZ are continuing to work proactively with National Highways in order to come to an agreement on a number of issues where the DCO works are on CZ land, and potentially affect the implementation of the wider Beaulieu OPP and approved Parameter Plans (see appendix 2, 3 and 4). On 17/12/2021 CZ provided comments to National Highways with regard to the Paynes Lane bridge design which is located across the A12 running into land owned by CZ, as part of the November 2021 design consultation. Following these discussions, the design was revised to ensure the bridge would not conflict with approved Beaulieu OPP and the revised design of the Paynes Lane bridge can be found on the



General Arrangement Plan Sheet 2 of 21 (Drawing No. HE551497-JAC-LDC-SCHW-DR-C-0022 Rev. P01). Following on from this, further comments were provided by CZ as part of the July 2022 consultation on 28/07/2022 which noted additional comments on the proposed Order Limits alterations following the November 2021 consultation. While a number of these matters discussed in previous responses to the application have been agreed, there remain a number of areas of disagreement between both parties, CZ and National Highways. Discussions are ongoing in order to come to an agreement on these matters, particularly in regard the Landowner Option Agreement. The Land Transfer Plan Sheet 1 of 1 (Drawing No. Z03100-CP-NA-SU-G\_6053 Rev P01), with an overlay of the relevant Beaulieu applications is included at Appendix 1 and highlights the areas of disagreement which are currently still being discussed. The Planning Inspectorate National Infrastructure Planning Temple Quay House 2 The Square Bristol BS1 6PN 6 New Bridge Street London EC4V 6AB T: 020 7489 0213 F: 020 7248 4743 E: info@dwdllp.com W: 2 There are a number of key planning consents currently being implemented within CZ's land, as well as two submitted DCO's and it therefore needs to be considered how they can all be accommodated without impacting the delivery of the approved Beaulieu OPP. These are: - The Beaulieu OPP (Ref: 09/01314/EIA) – approved by Chelmsford City Council on 7th March 2014; - The Beaulieu Park Railway Station and car park (Ref: 10/00021/EIA) – approved by Chelmsford City Council on 28th May 2013; - The Longfield Solar Farm DCO (Ref: EN010118) – submitted on 28th February 2022. The areas of disagreement are shown on the plan in Appendix 1 and summarised as follows: • Green Area 2/15b - cuts through land zoned for employment use, temporary use timing to be agreed with CZ to ensure there is no impact on delivery of employment use, the location of the access to be adjusted to avoid the Railway Station car park land; • Red Area 2/15a – permanent acquisition of this land with the current boundary cannot be granted as it is also required by CZ to deliver strategic cycleway link between train station, the business park and the allotments as well as public open space as shown on the enclosed approved Parameter Plans. Land boundary to be amended in consultation with CZ to ensure there are no conflicts. It is also noted that part of this land is required by Network Rail for the Railway Station car park delivery and there are several existing easements across this land; • Green Area 2/15f – temporary access over the land can be granted for construction but CZ cannot grant permanent rights; • Blue Area 2/15c – land boundary needs to be changed to avoid SuDS basin and other infrastructure. CZ can offer alternative access for both temporary and permanent access to avoid development infrastructure; and • Blue Area 2/17j – land boundary needs to be changed to avoid development infrastructure. CZ can offer alternative access for both temporary and permanent access to avoid development infrastructure. The areas of disagreement noted above need to be resolved between CZ and National Highways to ensure all of these key schemes can be delivered in a comprehensively planned and coordinated way. A meeting was held between both parties on Friday 10th February and National Highways indicated they are not

willing to revise the plans through the DCO process but were willing to amend them through the landowner option agreement between both parties. Until these option agreements are finalised CZ maintain an objection to the DCO plans as currently submitted. It is also CZ's preference that the plans should be revised and submitted to the Planning Inspector and assessed as part of the DCO examination process. 3 The Hillside Parks Appeal You will be aware of the recent Supreme Court Judgement given on the 2 November 2022 in relation to the Hillside Parks Ltd (Appellant) v Snowdonia National Park Authority (Respondent). In summary, the appeal case concerned a full detailed planning permission granted in 1967 for 401 homes in the Snowdonia National Park, which was the subject of a detailed masterplan drawing. The masterplan showed the layout of each house and the road system but in the years since it was granted only 41 homes has been built. Due to a number of subsequent drop-in applications which were inconsistent with the original masterplan, and therefore made it physically impossible to complete the original development, the Supreme Court established it was therefore unlawful to carry out any further development under the original permission. The A12 Proposed Development DCO will be a drop-in application on the original Beaulieu OPP and therefore CZ will need to be assured that both applications are consistent, and CZ can fully implement the Beaulieu OPP. Conclusion In summary, CZ continue to support the principle of the Proposed Development which includes the widening, where necessary, of the A12 between Chelmsford and the A120 from two lanes to three in each direction, as well as ancillary improvements to a number of junctions. While discussions continue between both CZ and National Highways regarding the matters outlined above, CZ maintain an objection to the submitted plans until the revised plans are agreed by both parties under the Landowner Option Agreement and in order to come to a mutual agreement on these issues through the DCO process CZ are willing to enter into a Statement of Common Ground (SoCG). Yours faithfully, Barry Murphy Partner DWD @dwdllp.com 020 7332 2116 Enc Appendix 1 – Land Transfer Plan Appendix 2 – Land Use Parameter Plan 1 Appendix 3 – Footpaths Cycleways and Bridleways Parameter Plan 4 Appendix 4 – Public Open Space Parameter Plan

### **Applicant's Response**

The Applicant notes the information provided by Countryside Zest.

The Applicant is committed to ongoing discussions with Countryside Zest regarding their concerns and is progressing an agreement to ensure both projects can be delivered as efficiently and effectively as practicable.

## Gateley Legal on behalf of David and Stephen Bolton

REP2-051-001

### Sub-Question

1. THE PROPOSAL 1.1 The proposal seeks to acquire land in title from our clients for the purposes of the A12 scheme, in particular for ecological mitigation and drainage matters. Land is proposed to be acquired in title rather than rights and the proposals have very extensive implications upon the operation of the land of our clients, in terms of area of land take, severance and injurious affection which are unjustified. 2. OBJECTION 2.1 Our clients object to the compulsory acquisition of land in terms of the extent of the land proposed, the interests taken and the purpose of acquisition. 2.2 Compulsory acquisition is a very draconian process and should not be undertaken other than in the most exceptional of circumstances. The burden of demonstrating the need to acquire land compulsorily is firmly upon the Acquiring Authority. In so doing it must demonstrate in accordance with case law and policy that there is a compelling case for compulsory acquisition and that the public interest in compulsory acquisition overrides the rights of individuals including their human rights. That compelling case must be decisively demonstrated.

### Applicant's Response

The Applicant deals with the Interested Parties' detailed comments in the following responses.

REP2-051-002

### Sub-Question

3. OBJECTION TO COMPULSORY ACQUISITION OF LAND 3.1 It is for the Acquiring Authority to demonstrate that it has a compelling case for the compulsory acquisition of land. That compelling case must show that the acquisition of land is in the public interest and that the purposes of the acquisition justify interfering with the human rights of those whose land is affected. Whilst the scheme as a whole may be justified, it is equally necessary to justify each individual proposed parcel of acquisition. That involves, in

amongst other matters, demonstrating how the land is proposed to be used, and if the acquisition is proposed to be permanent why that is necessary. 3.2 The test which the Acquiring Authority has to satisfy is a high one, whether it is necessary to compulsorily require land in the public interest. Lord Denning MR said the following in *Prest -v- The Secretary of State for Wales* [1982] 81LGR193. “It is clear that no minister or public authority can acquire any land compulsorily except the power to do so be given by Parliament: and Parliament only grants it or should only grant it where it is necessary in the public interest. In any case, therefore, where the scales are evenly balanced – for or against compulsorily acquisition – the decision – by whomsoever it is made – should come down against compulsory acquisition. I regard it as a principle of our constitutional law that no citizen is to be deprived of his land by any public authority against his will unless it is expressly authorised by Parliament and the public interest decisively so demands. If there is any reasonable doubt on the matter the balance must be resolved in favour of the citizen”. 3.3 The gravity of the position was further emphasised by Lord Justice Slade in *R -v- The Secretary of State for Transport Ex Parte de Rothschild* [1989] 1 RE933 where he gave “a warning that, in cases where a compulsory purchase order is under challenge, the draconian nature of the order will itself render it more vulnerable to successful challenge”. 3.4 These high bars are not met in relation to the proposed compulsorily acquisition. The evidence does not justify the acquisition in those terms. 3.5 It is our clients’ case that the:  Need for the extent of the land take for drainage, ecological and landscape mitigation is not proved.  It is not proven that there are no other alternatives which would have less impact on the existing land uses.  The design fails to take account of the impacts of the proposals upon the existing land uses.  The proposals fail to make provision for adequate access now and in the future to the land from Junction 19 of the A12. 3.6 The proposals as drawn have the following direct effects.  The access to the various activities on the land holdings is inadequate adversely impacting upon their ability to continue to trade, both during the construction and/or operational phases of the scheme.  The extent of land lost and/or severed has a significant impact upon the accessibility of and utilisation of the farmland.  The proposed land take directly adversely impacts upon the car boot sale by taking a significant part of the land which is utilised for that purpose. During the construction phase the car boot sale will be unable to operate.  The extent of temporary land take and construction activities will have severe impacts upon the amenity of occupiers and users of the land holdings and the trading of existing activities over the 4 year construction period.  The layout and land take proposed should take account of the need to allow a direct connection for the Hammonds LLP land to the south of Junction 19 to that Junction. 3.7 In particular, there are deficiencies in relation to highways and transportation, evidence, and ecological evidence.

## Applicant's Response

The Applicant responded to these points at Deadline 2 in its responses to the Interested Parties' relevant representations [REP1-002, RR-050, p 431]. It relies on those responses and further relies on its written submissions following the first compulsory acquisition hearings, at which the case for compulsory acquisition was set out, by reference to the Applicant's Statement of Reasons [APP-042] and Case for the Scheme [APP-249] to explain the compelling need for compulsory acquisition powers. The Applicant has made its case for the compulsory powers sought, including justifications for the interference with human rights. The Applicant will continue to liaise with the Affected Parties and will look to provide suitable access to retained land. Additionally, the Applicant has committed to minimising impacts on the car boot sale in paragraph 2.2.7 of the Outline Construction Traffic Management plan (REP2-003). The Applicant deals with the specific issues raised in its responses below and in its responses to the Affected Parties' relevant representation.

**REP2-051-003**

## Sub-Question

4. IMPACTS 4.1 David and Stephen Bolton own agricultural land to the east of the A12 just south of Boreham. As well as farming, other activities are carried out upon the land including: - A 300+ pitch car boot sale between March and November which has been operating for 27 years every Sunday and Bank Holiday Monday. - A game shoot for between 26 and 30 days per year. - Fishing lakes. - Agricultural buildings used for grain storage and drying and agricultural vehicle storage. - A weigh bridge. - 5000 sqft of commercial buildings used for B2 and B8 purposes. - Lorry repairs and MOTs. - Car repairs. - Car storage. - Catering unit. 4.2 All of these activities are directly accessed off the existing Junction 19 of the A12 and the proposals will directly impact upon the ability to carry out the activities and the access to them due to the configuration of the proposals, the extent of land taken by the proposals and the inadequate access proposals. 4.3 Hammonds Estates LLP owns and operates the land at Hammonds Farm to the immediate south and Gearston Limited (in the same controlling ownership as Hammonds Estates LLP) has an option to acquire. Hammonds Farm and the wider land area as a whole is under consideration in the August 2022 Chelmsford Local Plan Issues and Options Consultation document as a sustainable new large settlement/garden community for circa 4000 homes. It is therefore

essential that the proposed alterations to the A12 provide not only for the current uses of the land but also for potential future development of the land as a sustainable urban extension to Chelmsford. To fail to do so would be to unreasonably neglect to future proof the proposals. 4.4 Plot 1/11a is a large irregularly shaped piece of land running north south along the A12 and extending significantly towards the east. The impact of it being taken in title and utilised for ecological mitigation is to entirely sever north south linkages across the farm. There is no justification for the severance proposed nor is there any justification as to why the ecological mitigation land needs to be taken in this location as opposed to in another location.

### **Applicant's Response**

With regard to 4.1, the Applicant has worked with the Interested Party for over two years leading up to the submission of the application to understand the use of the land and make changes to the Order Limits and location of mitigation to minimise the impact of the scheme at the request of the Interested Party. The changes are explained in more detail in Relevant Representation response RR-050-003 and RR-050-006 and [REP1-002].

With regard to 4.2, access will be provided to all land outside of the Order Limits during construction and once the works are complete. The proposed access is a like for like replacement taking into account the current use of the land. Please refer to section 2.2 and 3.1 of the Outline Construction Traffic Management Plan [REP2-003] for further detail.

4.3 - The proposed scheme has taken in to account the host authorities' adopted and emerging Development Plan allocations, which set out the substantial housing and employment growth to be delivered over the relevant plan periods. A summary of the key growth aspirations included, as outlined in existing Core Strategies and emerging Local Plans, is provided in The Case for the Scheme, Table 2.1 [APP-249]. The proposed scheme has not included any draft Development Plan proposals which have not yet been examined by the Planning Inspectorate, which includes Chelmsford Local Plan Issues and Options Consultation. In addition to Development Plan forecasts, adjustments to the location of future car trips are made by including planning applications for planned housing developments, and other developments such as employment, retail and leisure sites not included in a Development Plan. A list of these developments was produced through discussions with the planning authorities for Braintree, Chelmsford, Colchester, Maldon and Tendring.

If the development of the land advocated by Hammonds Estates LLP secures an allocation in the current local plan process it will be

for the promoter of the housing development to put forward its proposals for the highway network. Given the landowners' aspirations for development of the relevant land do not benefit from development plan allocation or planning permission it would not be possible to make provision for enhanced future access to the land from Junction 19 of the A12. The Applicant does not believe the design of its proposed scheme prevents such future plans as the landowners may have from coming forward at the appropriate time.

**REP2-051-004**

### **Sub-Question**

4.4 Plot 1/11a is a large irregularly shaped piece of land running north south along the A12 and extending significantly towards the east. The impact of it being taken in title and utilised for ecological mitigation is to entirely sever north south linkages across the farm. There is no justification for the severance proposed nor is there any justification as to why the ecological mitigation land needs to be taken in this location as opposed to in another location.

### **Applicant's Response**

Land required for embedded and essential mitigation must be acquired by the Applicant on a permanent freehold basis so that the Applicant is able to ensure the effectiveness of the mitigation in the long-term. Control over the land is required permanently to enable the mitigation provided to be managed, maintained and monitored. National Highways' long-standing practice has been to acquire the land used for essential mitigation rather than to offer back the land required subject to a positive covenant to maintain the land in a certain condition/to a set standard via a management agreement as proposed in the representation. This is because any disposal of essential mitigation would expose the Applicant to a breach of the made DCO and to potential criminal sanction if the landowner failed to maintain the mitigation. In such circumstances, National Highways' only remedy would be to seek to enforce the management agreement against the landowners in the civil courts, whilst facing criminal liability itself. National Highways is not able to accept such an 'imbalance of consequence' whereby it would face greater liability than the actual party in breach.

There are two ecological mitigation areas within Plot 1/11a which would form part of the wider package of reptile mitigation being

delivered across the proposed scheme, totalling 48.67ha across 20 different mitigation areas. The Applicant notes that the area stated in this response differs slightly to the 48.83ha as stated in the response to RR-050-006 (9.3 Applicant's Response to Relevant Representations Rev 2 [REP1-002]). This is due to the Applicant reducing the size of one of the mitigation areas by 0.16ha to avoid a small overlap between the mitigation area and another development that is under construction, thereby avoiding any conflict.

The locations of ecological mitigation areas for reptiles were determined based on general design principles and primarily on Natural England's Standing Advice (Reptiles: advice for making planning decisions, Natural England, 2022, available <https://www.gov.uk/guidance/reptiles-advice-for-making-planning-decisions>). These design principles are as follows.

Future development – receptor sites had to be located on land which is not subject to proposals for future development in order to avoid impacting the same populations more than once.

Location – due to the size and linear nature of the proposed scheme it was important to identify multiple receptor sites along the length of the proposed scheme, with some either side of the existing A12 for practical and welfare reasons during translocation (i.e., so reptiles could be moved quickly over relatively short distances from donor to receptor site). Other concerns relate to the potential for detrimental impacts at the receptor site (either on the translocated animals or any already present) due to genetic differences, pathogen transfer and local adaptation (Natural England, 2011).

Location – the mitigation areas also need to be created in advance of the construction that will result in the impact to the species occurring, to allow newly created and enhanced habitats to become sufficiently established prior to introducing the animals. It was therefore not possible to make use of areas being acquired temporarily for construction, or residual land around areas of hard engineering such as borrow pits, unless the design team could guarantee these would be unaffected by construction activities.

Condition – receptor sites had to be of suboptimal or negligible potential for reptiles with an existing low or negligible reptile population, and therefore there were minimal impacts to existing populations and the quality of habitats could be easily improved to increase the carrying capacity of the site for reptiles. In the context of this proposed scheme, it meant receptors sites were arable or improved grassland.

Connectivity – receptor sites had to be in a location where there was existing connectivity with reptile habitat in the wider landscape,



or in a location where new planting could be created to provide this connectivity.

Flood plain – a large proportion of the land within each mitigation area had to sit outside the flood plain so that reptiles could inhabit the area all year round without the risk of drowning and being able to move to higher ground. The risk of drowning is especially prevalent between October to March when reptiles are hibernating.

Plot 1/11a fulfils the criteria outlined above. Its location at the far southwest end of the proposed scheme maximises the distribution of reptile habitat along the length of the proposed scheme. The areas of land selected are discrete from other areas affected by construction, however, are appropriately located so that upon implementation of the wider landscaping scheme in accordance with the Environmental Masterplan [APP-086 to APP-088], the receptor areas would become part of a series of stepping stones of reptile habitat through the landscape, connected by the verge of the proposed scheme and associated infrastructure such as planting around attenuation ponds. Both mitigation areas within plot 1/11a are within arable habitat which is currently of negligible potential for reptiles and so there is potential to greatly increase the suitability of these habitats ready to receive animals from the translocation without risking effects on existing populations. Lastly, as shown on Figure 14.4 [APP-242], the mitigation areas are outside of the modelled fluvial flood extents. Therefore, the Applicant considers that there is no better alternative location with respect to reptile mitigation.

In addition to being selected for reptile relocation, Plot 1/11a also has the secondary benefit of proximity to known water vole populations. Baseline surveys recorded the presence of water voles within two ditches in this part of the proposed scheme (Appendix 9.10: Riparian Mammal Survey Report, of the Environmental Statement [APP-134]). While there are currently no impacts predicted on this species, it is acknowledged that the sizes of water vole populations can fluctuate significantly (paragraph 9.11.179 of Chapter 9: Biodiversity [APP-076]). As per paragraphs 9.11.178, 9.11.185 and 9.11.186 of Chapter 9: Biodiversity [APP-076], due to the distance between the burrows identified during the baseline field surveys and the nearest construction activity, there would be no impacts from mortality or injury of water vole, nor would there be an impact from disturbance, therefore mitigation for water voles would not be required.

However, as per paragraph 9.11.179 of Chapter 9: Biodiversity [APP-076], the sizes of water vole populations can fluctuate significantly, particularly should management of American mink *Neovison vison* (a predator of water vole) be undertaken within the river catchment, and therefore the baseline may change in the period up to construction. Pre-construction surveys would be

undertaken for all watercourses and ditches with potential to support water vole within the Order Limits. Where practicable, the design of the proposed scheme would be modified to avoid impacts to any new burrows, for example through micro-siting of haul roads and access tracks. Where impacts could not be avoided, a licence would be sought from Natural England for the displacement or translocation of water voles as appropriate.

Both of the proposed mitigation areas to the south of junction 19 (shown on Sheet 1 of 21 of the Environmental Masterplan [APP-086]) were selected for reptiles because they could also be used as receptor sites for water vole mitigation if required at a later date. By using the mitigation areas for both species there would be a reduction in the overall land take compared to having separate reptile and water vole mitigation areas. A further mitigation area which combines reptile mitigation with water vole enhancements on this same basis is provided on Plot 8/45b south of the River Brain and Whetmead LNR/LWS. Whilst it is acknowledged the water vole enhancements aren't directly connected to the River Brain, the short expanse of habitat (< 30m) would not be considered a barrier to the colonisation of the ditch complex by water vole from the River Brain.

The locations of these mitigation areas relate to the presence of an existing ditch network and the records of low levels of water vole activity from the baseline surveys. Siting them south of junction 19 is also in accordance with one of the overarching principles to the mitigation design 'to identify multiple receptor sites along the length of the proposed scheme'. Translocating reptiles here would help increase the local distribution of grass snake, common lizard and slow worm.

Should the results of the preconstruction surveys indicate that water vole mitigation is still not required, the designed water vole habitat would become part of the enhancements for the proposed scheme. However, the habitats created would still provide mitigation for reptiles and therefore acquisition of the land is still required. .

National Policy Statement National Networks(NPSNN) paragraph 5.23 requires the Applicant to describe how the proposed scheme plans to conserve and enhance biodiversity conservation interests. In accordance with this policy the Applicant has sought opportunities to enhance biodiversity as described within Section 9.10 of Chapter 9: Biodiversity [APP-076].

As per Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070], feedback from the landowner has been taken into consideration in determining the location of these mitigation areas. Initially, the mitigation area was shown immediately adjacent to the A12 but was moved at the request of the landowner, as this land is used for car boot fairs, to a single, large mitigation area that would link with the ditches in which water vole had been recorded. Because of further concerns raised by the

landowner, and potential impacts on access to adjacent fields, alternative solutions were discussed during a number of meetings with the landowner, resulting in a reduction in size of the original rectangular mitigation area, movement of the mitigation area east and alternation into a zig zag shape to follow the existing ditch network, and the subsequent creation of a smaller, secondary area (Plot1/11a south), located further south along another part of the ditch network.

With respect to severance, access would be maintained via a private means of access (as shown on Sheet 1 of the Streets, Rights of Way and Access Plans, Part 1 [AS-027]).

**REP2-051-005**

### **Sub-Question**

4.5 Plot 1/11e is proposed to be used temporarily. There is a north south link between it and Plot 1/11a which results in the severance during the construction period of a broadly rectangular shaped block of land to the immediate east of the A12. The purpose of the acquisition is unclear. Notwithstanding that, the north south linkage between Plot 1/11a and that area of land is wholly unjustified resulting as it does in the severance and prevention of access to adjacent land during the construction period. The activities identified at 1.1 above will be unable to be carried out during the construction phase. There is no reason or justification why, even if the acquisition of 1/11e was justified, which is not accepted, access to it cannot be gained within the corridor of land being compulsorily acquired along the A12.

### **Applicant's Response**

The Applicant has previously responded to this point made in the Interested Parties' Relevant Representation [RR-050] which can be found in Deadline 1 Submission - Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience this has been summarised below.

Access would be provided to all land outside the Order Limits during construction and once the works are complete.

The permanent land take at this location would be kept to a practical minimum. The temporary access (part of plot 1/11e) would be

required to provide a segregated route providing access to the rest of the works avoiding exclusion zones around operational plant and excavations while constructing the utility diversions and other permanent works. This route has been selected to follow an existing track and thereby aims to minimise disruption to the landowner.

The Applicant is willing to discuss this access route with the landowner and if necessary to identify an alternative that meets the needs of the proposed scheme, should this be preferred by the landowner.

**REP2-051-006**

### **Sub-Question**

4.6 The impacts upon our clients' land holdings are wholly unacceptable and unjustified. The proposals put forward have paid no attention as to how the land is utilised nor as to the activities carried out upon the land. In consequence the compulsory acquisition is not justified at all. 4.7 The impacts upon our clients' land holdings are wholly unjustified and wholly unacceptable.

### **Applicant's Response**

The Applicant has fully considered the impacts of the proposed scheme on all landowners and continues to work with landowners to seek to minimise impacts where practicable. The Applicant has fully justified the proposed acquisitions, on a plot-by-plot basis, in Annex A of the Applicant's Statement of Reasons [APP-042]. Whilst cognisant of the Interested Parties' concerns, the Applicant believes there is a compelling case in the public interest for the proposed acquisition, demonstrated in both the Applicant's Statement of Reasons [APP-042] and its Case for the Scheme [APP-249].

**REP2-051-007**

### **Sub-Question**

5. ALTERNATIVES 5.1 As our clients' technical advisors, Stantech point out, there is no justification or explanation given in respect

of the following points: 5.1.1 Why the location of the ecological mitigation area chosen. 5.1.2 The size of the mitigation area chosen. 5.1.3 The functionality of the mitigation area chosen. 5.1.4 The relationship of the mitigation area chosen to other areas within the wider surrounding landscape. 5.2 National Highways simply asserts that mitigation in these locations of this size is necessary, yet it wholly fails to discharge the burden upon it of demonstrating why that is so and in consequence fails to demonstrate a compelling case as to why the land should be compulsorily acquired for that purpose. 5.3 Our client and its technical advisors are firmly of the view that there is no justification whatsoever for the scale, extent and location of the ecological mitigation areas proposed. Further, the ecological mitigation areas proposed have enormously significance adverse impacts upon our clients' landholdings and operations. This is wholly unacceptable when alternatives are available. Our clients' technical advisors have identified alternative land which could be utilised for ecological mitigation purposes running along the brook that runs to the immediate northeast of the listed building. This connects into existing areas of ecological interest and builds upon a brook habitat which will beneficially aid ecological mitigation and biodiversity in a way that is not the case with the areas chosen by National Highways. This alternative proposal is shown hatched green on the plan attached to the Stantech note which forms Appendix 1 to this document. In consequence of this alternative area that could be utilised for ecological mitigation purposes without having the same adverse effects as the chosen area, the areas shown cross hatched blue on the Stantech drawing would not be compulsorily acquired.

### **Applicant's Response**

The Applicant acknowledges the comments with respect to ecological mitigation areas and provides the following justification to demonstrate a compelling case for the acquisition of land for the purpose for reptile mitigation.

This response focuses upon land acquisition for the purpose of ecological mitigation. However, it should be noted that Plots 1/11a and 2/12g also include attenuation ponds and associated infrastructure such as pipework connected to ponds and an access for general maintenance of attenuation ponds and outfall structures, works required to existing culverts and ditches as shown on Drainage and Surface Water Plan Part 2, Sheet 1 of 21 and Sheet 2 of 21 [APP-034]. Please refer to the Applicant's response to the Relevant Representation, specifically sub part RR-050-006 and RR-050-007 within the Applicant's Response to Relevant Representations – Rev 2 [REP1-002] and the Junction 19 Surface Water Drainage Design Technical Note to complement Applicant's response to RR-050 – Rev 1 [REP1-010] for justification for the location of attenuation ponds within these plots.

### 5.1.1/5.1.2 The location and size of mitigation area chosen

There are two ecological mitigation areas within Plot 1/11a and a single mitigation area within Plot 2/12g which are located within the Interested Parties' land ownership and would form part of the wider package of reptile mitigation being delivered across the proposed scheme totalling 48.67ha across 20 different mitigation areas. As stated earlier in sub-part 004 of this Written Representation, the total area being provided by the mitigation areas has been slightly reduced (by 0.16ha) to avoid conflict between the mitigation area and another development that is under construction.

The number, size and locations of ecological mitigation areas for reptiles were determined based on general design principles, primarily Natural England's Standing Advice for reptiles. These criteria were used to identify areas within the Order Limits suitable for the provision of reptile mitigation and are detailed in REP2-051-004 of this response.

The response to REP2-051-004 also provides justification for the location of the mitigation areas within Plot 1/11a and is not repeated here. Justification for the mitigation area within Plot 2/12g is provided below.

Reptile surveys undertaken as part of the baseline surveys to inform the biodiversity assessment for the proposed scheme identified a 'key reptile site' (i.e., a site that supports at least three species of reptile) on the verge of the existing A12 near Boreham (reptile survey site 18, as shown in Figure 1, Sheet 2 of Appendix 9.9: Reptile Survey Report [APP-133]). It should be noted that this is the only one of two key reptile sites identified within the Order Limits.

Due to its proximity to reptile survey site 18, the location of the mitigation area within Plot 2/12g is therefore optimal for the preservation of an important population of reptiles within the local area. As per Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070], following consultation with the landowner the footprint of the attenuation pond adjacent to this mitigation area was reconfigured, allowing enough space to relocate the ecological mitigation area into its immediate surroundings, and thereby reducing the overall land required in this area.

### 5.1.3 The functionality of the mitigation area chosen

The functionality of the mitigation areas within Plot 1/11a would be achieved through the connectivity of the verges of the A12 as shown on Sheet 1 of 21 of the Environmental Masterplan [APP-086].

With respect to ecology, given the close proximity to reptile survey site 18 (which is a 'key reptile site'), the provision of reptile

receptor sites within Plot 2/12g is optimal for achieving a minimal distance between donor and receptor site. The mitigation area is also directly adjacent to the A12 and so is connected within the wider landscape and other reptile mitigation areas along the scheme by a corridor of habitat along the verges of the A12. This would support the movement of reptiles across the wider landscape (as shown on the Retained and Removed Vegetation Plans – Part 1 [APP-035]).

The three proposed attenuation ponds within Plots 1/11a and 2/12g would also function as habitat for reptiles, as the pond design would be sympathetic to wildlife including reptiles, enabling reptiles to use the areas of grassland planting around the ponds and for grass snakes to hunt within the ponds.

#### 5.1.4 The relationship of the mitigation area chosen to other areas within the wider surrounding landscape.

All 20 proposed ecological mitigation areas for reptiles have been identified using the same selection criteria, as guided by the general design principles and informed by Natural England's Standing Advice for reptiles. To satisfy the requirement to minimise distance between donor and receptor site, it is important for these areas to be distributed across the length of the proposed scheme, as well as being located within close proximity to known key reptile sites. In summary, all mitigation areas are:

- - Currently of suboptimal or negligible potential for reptiles within an existing low or negligible reptile population
- - In locations unaffected by construction due to the need for mitigation areas to be created in advance of construction
- - Outside the flood plain to allow reptiles to inhabit the site all year round
- - Of good existing connectivity with reptile habitat in the wider landscape, or in a location where new planting could be created to provide this connectivity.

#### 5.3 Alternative land

As per Table A.21 in the Environmental Statement Appendix 13.3: Land use and accessibility assessment tables [APP-155], agricultural landholding 1, which covers Plot 1/11a and Plot 2/12g, is assessed as having a moderate adverse magnitude of impact during construction and operation of the proposed scheme.

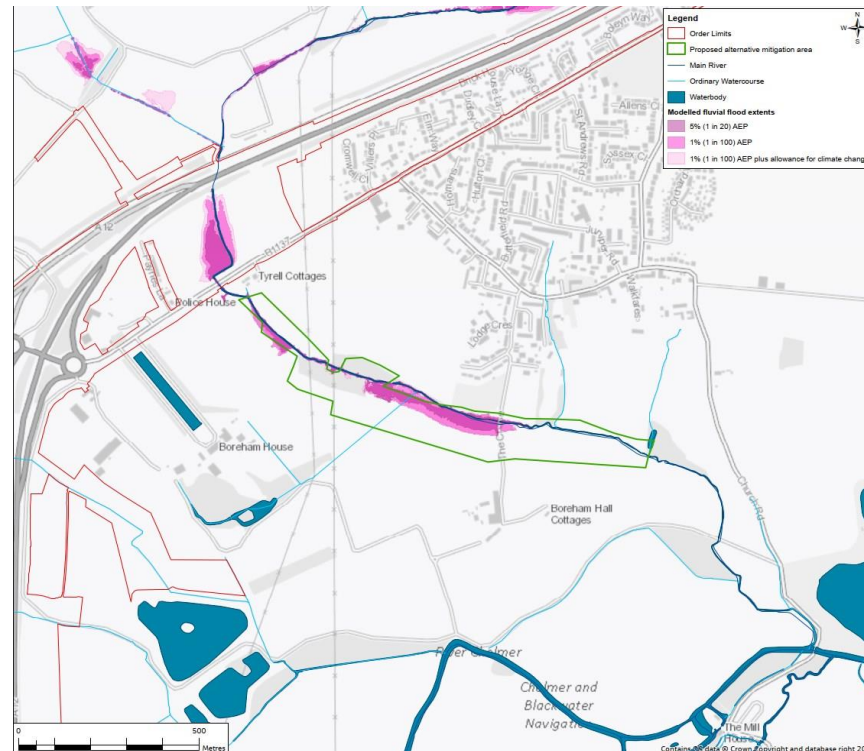
The Applicant has given serious consideration to the alternative mitigation location at Boreham Brook proposed by the Interested

Parties against the design principles outlined in the response for REP2-051-004, as it is recognised this would be more agreeable to the Interested Party.

However, unfortunately a significant proportion of the proposed alternative location is within the modelled fluvial flood extents of the Boreham Brook, as shown by the Applicant's fluvial flood model shown on Sheet 2 of 11 of Figure 14.4 of the Environmental Statement [APP-242] and also in Plate 1 below. Detailed hydraulic modelling of Boreham Brook has informed the design at this location as it is considered to be more accurate than the published flood zone mapping. It is noted that the Environment Agency has accepted the hydraulic modelling undertaken to inform the Flood Risk Assessment (paragraph 2.1 of their Relevant Representation (RR-011) dated 4/11/22). For this reason alone, the proposed location does not therefore satisfy the criteria as outlined in the general design principles (as advised by Natural England's Standing Advice) to constitute a suitable reptile receptor site.



**Plate 1: Extent of modelled fluvial flood extents in the context of the Order Limits and proposed alternative mitigation area**



In addition, the location of the proposed alternative location does not coincide with the ditches in which water voles have been most recently recorded. It is therefore considered that siting the mitigation as shown in the proposed alternative location may prevent the Applicant mitigating construction effects on water vole if required to enable construction of the attenuation ponds within Plot 1/11a or in the absence of this requirement, it would prevent delivery of enhancements with respect to water vole, in compliance with

paragraph 5.33 of the National Policy Statement for National Networks which requires the Applicant to maximise opportunities for building in beneficial biodiversity features as part of good design.

A further benefit to the Applicant's proposed location for the mitigation areas within Plot 1/11a is the proximity to the attenuation ponds. As described earlier in this response, grassland planting around these ponds would function as habitat for reptiles thereby increasing the availability of suitable habitat for the species by having them in areas contiguous with the ecology mitigation areas.

**REP2-051-008**

**Sub-Question**

5.4 Further, the proposal seeks to acquire land in title for ecological mitigation purposes. There is no explanation or justification as to why land needs to be acquired in title. Rather, rights could be acquired to create necessary additional habitat within the new hatched green area suggested with ongoing right to manage and maintain that area. There is no explanation or justification whatsoever for the acquisition of title.

**Applicant's Response**

Please see the response to REP2-051-004.

**REP2-051-009**

**Sub-Question**

6. CONCLUSION 6.1 Our clients' objections to the compulsory purchase provisions of the development consent order are founded upon the abject failure of National Highways to demonstrate a compelling case for acquisition. The following key points are raised:  
6.1.1 The land which is proposed to be acquired is not needed and therefore a compelling case to acquire it cannot be demonstrated because there is an alternative which brings about ecological mitigation in a different location of a better quality and

better linked to the existing environment to the proposal put forward by National Highways. 6.1.2 The existing uses have particular value to our clients and the operation of their farm businesses and the harm which would be caused by the severance and injurious affection caused in addition to the land take proposed is wholly and utterly unjustified. Those impacts are quite unacceptable, particularly in the context where an alternative proposal could be delivered for ecological mitigation which would not have those effects. 6.1.3 Insofar as the impacts are sought to be justified by reference to biodiversity net gain, it should be noted that there is no requirement for a 10% biodiversity net gain, either at policy or at law and in consequence that cannot found a basis for building a compelling case for compulsory acquisition. 6.1.4 The need to acquire land in title as opposed to creating rights to deliver, manage and maintain ecological mitigation areas is not demonstrated. 6.2 In all of the circumstances, the Acquiring Authority has wholly failed to demonstrate the decisive compelling requirement for compulsory acquisition and the DCO should be amended to remove the areas objected to and to provide the alternative put forward. That alternative can be created, managed, and maintained by the acquisition of rights by the creation of new rights rather than the acquisition of title. Equally, other areas of land running north south along the A12 are proposed to be acquired in title, yet there is no justification as to why title is required as opposed to temporary rights. SUMMARY AND CONCLUSION 6.3 We provide an alternative proposal that has less land taken and will deliver the same ecological and drainage benefits as the present proposals thereby completely demonstrating that the current proposals cannot demonstrate a compelling case in the public interest. In all of the circumstances, the proposed Order is flawed and should not be confirmed in its present format.

### **Applicant's Response**

The Applicant responds as follows:

6.1 – The Applicant believes there is a compelling case for compulsory acquisition as set out in the Applicant's Statement of Reasons [APP-042], Responses to Relevant Representations – Rev 2 [REP1-002] and Case for the Scheme [APP-249].

6.1.1 – The land sought is required for the mitigation purposes described in the Applicant's Statement of Reasons Annex A [APP-042] and is fully supported by the conclusions of the Applicant's Environmental Statement. While the Applicant has considered the alternative suggested by the Interested Parties' and for the reasons set out in response to REP2-051-007, the Applicant does not believe that a reasonable alternative to that proposed in the Application exists.

6.1.2 – The Applicant has noted the existing uses put to the land for all Interested Parties. The Applicant will provide access to the highway from the Interested Parties' retained land to reduce any injurious affection to a reasonably practicable minimum. In the context of there not being an alternative proposal that is capable of being regarded as a reasonable alternative, the Applicant believes that the provision of access to the highway and the payment of compensation in accordance with the compensation code means that the Interested Parties would be no better or worse off as a result of the proposed compulsory acquisition.

6.1.3 – None of the impacts are sought to be justified by reference to biodiversity net gain. While biodiversity net gain is provided by the proposed scheme, all lands sought for ecological mitigation purposes are sought for purposes other than biodiversity net gain – there will be a specific requirement for the land to be provided as mitigation land.

6.1.4 – The Applicant is only seeking freehold title where it believes there are works required or ongoing maintenance, monitoring or mitigation obligations which mean the Applicant must have title to the land. Alternatives short of freehold acquisition can only be secured by agreement and by way of commitment from the Interested Parties that any ongoing maintenance or monitoring requirements can still be fully discharged by the Applicant.

6.2 – As stated above, the Applicant believes there is a compelling case in the public interest for the proposed compulsory acquisition powers to be provided. The alternatives proposed are not practicable or can only be secured with the agreement of the Interested Parties. That agreement is not yet in place. The Applicant will continue to work with the Interested Parties to see if such agreement can be reached.

The provisions in Article 40 regarding the restoration of land acquired for temporary purposes means that this power is not suitable for activities where there is an enduring requirement for works to remain in situ or where the Applicant must know that it is able to retain and maintain works within land.

6.3 – As indicated above, the alternative proposal put forward is not suitable and does not meet the needs of the proposed scheme.

**REP2-051-010**

**Sub-Question**

1. Overview In August 2021, Representations were prepared by Stantec UK Ltd (Stantec) on behalf of Hammonds Estates LLP and the Bolton Family in response to the Phase 2 Consultation for the A12 Junctions 19 – 25 Widening scheme (the Scheme). Both parties own land to the east of the A12 between Junctions 18 and 19. The full DCO Application and associated documents was accepted for examination by the Planning Inspectorate in September 2022 (ref TRO10060). In October 2022, Stantec prepared an updated Representation, on our clients' behalf, in relation to the improvements proposed at Junction 19 and the potential impact on our clients' land, specifically in relation to land parcel 1/11a which is identified as being required for essential ecological mitigation associated with the Scheme. In December 2022, National Highways submitted an application for 'Proposed Ecological Mitigation Areas 1 and 2 at land east of the A12, north of the river Chelmer and south of Boreham House', to Chelmsford City Council, under the Town and Country Planning Act 1990, in order to enable the creation of ecological habitats in advance of the A12 construction. This planning application (from here on referred to as the Advanced Works Application) provides the detailed design of the nature and scale of the ecological mitigation areas, including how they would be constructed, operated, and maintained. This note provides an updated Representation on our client's behalf, specifically in relation to Ecological Mitigation Area 1, which is located within our client's land (identified in the General Arrangements Map Books for the DCO Application as land parcel 1/11a) Engagement has been ongoing with Highways England (now National Highways) since 2019, with a specific focus on understanding the rationale behind the scale of ecological mitigation and why the specific location of land parcel 1/11a has been chosen over others.

2. Land for ecological mitigation The General Arrangements Map Books (TR010060-000470-2.9), submitted with the DCO application identify the use of extensive areas of land adjacent or within close proximity to the Scheme for the delivery of compensation, mitigation and enhancement, with a total of 46ha. This land currently includes land parcel 1/11a within land owned by the Bolton Family; identified as Ecological Mitigation Area 1 in the Advance Works Application. Further detail of the design is provided on the Proposed Site Plans submitted with the Advance Works Application (see Sheets 1 and 2, ref HE551497). Having reviewed the information in relation to Biodiversity associated with the DCO application (Chapter 9 of the Environmental Statement (TR010060-000179-6.1), and Figure 2.1 Environmental Masterplan (TRO10060/App/6.2: Sheet 1), it appears that the mitigation identified within land owned by the Bolton Family forms part of the proposed ecological mitigation provision for the DCO Scheme, rather than being directly linked to effects of the Scheme in the local vicinity. The habitat creation proposed is extensive, confirmed in this planning application to comprise: 720m of ditches; 10 ponds; and a mix of grassland creation, tree and shrub planting. There remains no justification within the Advance. Chapter 3 of the ES: Assessment of Alternatives (TR010060-000137-6.1) confirms that following a meeting with

the landowner, the size of the mitigation area was reduced. Whilst this is welcomed, the land take is still substantial and the rationale for the mitigation area to be located in land owned by the Bolton Family, has still not been provided. Given the above, our client has identified an alternative location for the proposed ecological mitigation area, within the landholding of the Bolton family, for consideration by National Highways. An indicative location is illustrated in green on Drawing 332210660\_5501\_SK001. This is located within arable fields to the east of Boreham House and identifies a greater area, thus providing a flexibility on how the equivalent extent of land identified for Ecological Mitigation Area 1 can be provided in this alternative location. As is the case for Ecological Mitigation Area 1, the proposed area (Option 1) is also bounded by a ditch, and this feature is contiguous until reaching the A12 (it connects all the way under Boreham Road and the A12 to the Beaulieu Park development), therefore providing essential connectivity for the ecological mitigation. The baseline habitat is also the same as for Area 1 i.e. an arable field. It is therefore anticipated that the same increase in Biodiversity Net Gain could be achieved, as identified in the Biodiversity Statement and Mitigation Plan (National Highways, December 2022), through the mix of grassland creation, tree and shrub planting proposed. The new pond creation, hibernacula and network of ditches (for great crested newts, reptiles, and water voles respectively) required could also be accommodated. In addition, there is a small copse and linear wooded area directly adjacent to the proposed new ecological area that provides additional ecological functionality, which would be expected to 'add value' to the new habitats created; there is no such existing habitat in the vicinity of National Highways' Ecological Mitigation Area 1. Furthermore, this is in a more convenient location for our client, as it does not restrict the potential for future development of their land. It is also important to note that there is no legal or policy requirement for Biodiversity Net Gain provision for the proposed Scheme. Nevertheless, the applicant has sought to maximise biodiversity delivery, as reported in Appendix 9.14 of the Environmental Statement (TRO10060/APP/6.3). This demonstrates that based on the design and Order limits from April 2022, the current biodiversity unit forecast for area based habitat is estimated to be 25.01% gain in units, as compared to the baseline. This is substantially greater than the provision for the anticipated mandatory requirement to provide a 10% BNG, associated with the recent Environment Act. The Advance Works Application includes a Biodiversity Net Gain Assessment, which suggests a 250% increase in biodiversity units for Mitigation Areas 1 and 2; the metric which supports this calculation has not been submitted with the DCO or this current Advance Works Application.

3. Lack of justification from National Highways The following points were raised in 2021, which have not been responded to, in relation to including land parcel 1/11a (Ecological Mitigation Area 1) within the Order Limits, which are also relevant considerations for CCC when determining the Ecological Mitigation Advance Works Planning Application for Areas 1 and 2:

- National Highways has failed to provide detail as to why land owned by the Bolton Family has been selected, the rationale behind the size of the area

proposed, and whether consideration of alternative locations for biodiversity compensation, mitigation and enhancement has been made; • National Highways has failed to provide detailed information to justify why other apparently suitable land has been discounted, including the suggestion put forward by our client of Option 1 which would provide a 'like for like' alternative; and • National Highways has failed to consider whether there is a strategic mitigation solution that could be utilised instead - i.e. financial contributions into a strategic landscape scale habitat creation scheme. Works Application (nor in the ES) that habitats to be created or enhanced must be positioned within a certain location; nor a justification for the extent of habitats proposed.

### **Applicant's Response**

Justification for the selection of Plot 1/11a for proposed ecological mitigation, both in terms of size and location is provided in response to REP2-051-004 and REP2-051-007. Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070] details how the design of the mitigation areas has been refined, predominantly in response to landowner feedback. For the reasons expressed in these responses to the written representations made, the Applicant does not believe a more appropriate or better alternative location can be identified. The land identified by the Applicant is suitable for and required for the mitigation purposes for which its acquisition is sought.

There is no land within the Order Limits which the Applicant proposes to acquire purely for the purposes of biodiversity net gain (BNG).

Land which would be acquired for other purposes such as ecological mitigation for protected species, landscape mitigation for screening of visual impacts and verges of the proposed scheme would have a secondary benefit of contributing towards biodiversity net gain. This benefit is stated in the application documentation but is not part of the Applicant's compelling case for land acquisition, but rather is demonstrating how the Applicant is taking advantage of the land required for mitigation in accordance with paragraph 5.23 of the National Policy Statement National Networks(NPSNN). All land that is being acquired is for essential mitigation and is no more than is necessary to mitigate the impact identified. The methodology used to calculate BNG for the proposed scheme is detailed within Environmental Statement Appendix 9.14: Biodiversity Net Gain Report [APP-138].

The 250% net gain in habitats for the Advanced Works Application is reflective of the fact that the metric is only calculating changes in habitat composition within the mitigation area as opposed to the area of impact due to the fact that the planning application for the

Advanced Works is only concerned with the creation of the mitigation area. As such, it would therefore be expected to show substantial habitat gain.

The Applicant has submitted the 3.0 metric for the proposed scheme to the Examination at Deadline 3. The 3.0 metric for Ecological Mitigation Area 1 is available through Chelmsford City Council's planning portal, <https://publicaccess.chelmsford.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=RMZ7ROBRM8500>.

The Applicant acknowledges the suggestion for an alternative mitigation area and has provided a response within REP2-051-007.

While it is possible to deliver mitigation for great crested newts (GCN) through strategic landscape scale mitigation, as is being done for the proposed scheme through contributions to Natural England's GCN District Level Licensing Scheme, the same mechanism does not currently exist for reptiles. The district level licence for great crested newts provides a mechanism for avoiding breach of the legislation afforded to great crested newts by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations (2019) (as amended). There are however no mitigation licences for grass snakes, common lizards or slow worms and so it would be impossible for National Highways to discharge its legal responsibilities with respect to reptiles in the same way as is possible for GCN, and so National Highways has no alternative but to undertake trapping and translocation of reptiles to prevent killing and injury of animals.

While it is feasible to consider off site receptor areas, in the absence of a wider strategic scheme to feed into, it is considered the best option is to retain populations locally. The proposed mitigation would create a local network of receptor sites which would act as stepping stones through the landscape, connected by the verges of the A12 and other landscaping (such as planting around attenuation ponds). An offsite receptor area would not have the benefit of the connectivity with these habitats, and it is therefore assessed that off-site mitigation would be less beneficial to maintaining the local conservation status of reptiles.

## Environment Agency

REP2-053-001

### Sub-Question

APPLICATION BY NATIONAL HIGHWAYS FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE A12



CHELMSFORD TO A120 WIDENING Environment Agency – Written Representation Summary Please find below the Environment Agency further Written Representation in response to the Development Consent Order application for the proposed works. Our Written Representation provides further information and updates in respect of previously made comments addressing biodiversity & ecology, flood risk, contaminated land, groundwater resources, surface water (water resources & water quality), the draft DCO, and environmental permitting. We have significant concerns in respect of the proposed main river crossings and the impact on ecology from habitat loss and fragmentation. We do not believe that it has been demonstrated that these impacts have been adequately assessed or mitigated. In respect of flood risk, we are broadly satisfied, and we are engaging with the Applicant on any outstanding issues. We have provided detailed comments in this response on flood risk from non-main rivers, additional to the comments on main river flooding in our Relevant Representation. For all other issues, we are broadly satisfied subject to a further review at the detailed design stage. However, we are not currently satisfied that the draft DCO and proposed Requirements enable that review.

### **Applicant's Response**

The Applicant notes and is aware of the concerns raised by the Environment Agency regarding the main river crossings, as documented in the Statement of Common Ground (REP2-008) between the two parties. Liaison continues between the parties to seek a resolution to the concerns raised.

**REP2-053-002**

### **Sub-Question**

1 Biodiversity & Ecology 1.1 Main River Crossings 1.1.1 The proposed scheme requires six new and extended crossings of main rivers. Flood Risk Activity Permits (FRAPs) will be required from the Environment Agency for these structures. We have substantial concerns that the nature of some of these crossings as proposed has the potential to significantly and adversely affect both the upstream and downstream ecology of those catchments. Of particular concern are the proposed 46 metre culvert crossing of Rivenhall Brook and the 60m Domsey Brook culvert. Our Relevant Representation (Ref: RR-011, Section 1) outlines the basis of those concerns and is not repeated here. We have provided additional detail below on our key issues and on the specifics of each

of the main river crossings. 1.1.2 We note that the Applicant, in response to our Relevant Representation (REP1-002, RR-011-004), has stated that “the mitigation hierarchy has been followed to, where practicable, modify the design to avoid impacts to these features” (namely protected species and priority habitats). As we have previously highlighted, the Environment Agency has a long-standing policy opposing the use of culverts due to likely impacts on biodiversity and hydromorphology, and also flood risk blockage concerns. We look to see open span bridges used wherever possible instead of culverts, unless it is demonstrated that culverting is both necessary and the only reasonable and practicable alternative. Considering the culverts proposed for new crossings of Rivenhall Brook and Domsey Brook, in each case it is not clear why a culvert has been proposed rather than an open-span bridge. We can only assume that this is for cost reasons. We note that the Design and Access Statement (APP-268) does not provide justification for the approach of using culverts or provide any discussion on the consideration of alternatives such as bridges. The use of alternatives to these culverts does not appear to have been considered. 1.1.3 We would emphasize that in order for there to be no significant effects on ecology, all new and extended main river crossings must not introduce further barriers to eel, fish, or mammal passage/transit. The new main river crossings should include open river bank and riparian habitat as buffer zones throughout to enable wildlife to continue to use the river corridors naturally, safely and without hindrance. Failure on fish passage (or in respect of geomorphological processes, sediment transport etc.) will result in a catchment scale deterioration in the Water Environment (Water Framework Directive) Regulations 2017 (WER) (formerly the Water Framework Directive (WFD)), which would be unacceptable. 1.1.4 The long dark culverts proposed for Rivenhall Brook and Domsey Brook (east crossing) create significant breaks in connectivity and cause fragmentation of habitats. They will also create a break in continuous geomorphological river processes and sediment transport. We have serious concerns regarding the long-term impacts of these crossings on species that need connectivity. The culvert options do not appear to take the long-term damaging environmental impacts into proper account. Where a culverted crossing is proposed as the only reasonable and practicable option, it must also be demonstrated that it will not result in an unacceptable impact on habitats and species present. For a FRAP to be granted for works within 8 of a main river, we must be satisfied that mitigation and compensation measures will be put in place to reduce or nullify any impacts to our satisfaction. 1.1.5 Sections 9.11.120 and 9.11.119 of the Environmental statement (APP-076) conclude that despite the crossings resulting in an outright loss of 230 metres of river habitat, the impact on rivers will be neutral i.e., not significant. It is stated that the loss of habitat would be offset by the beneficial impacts of the proposed realignments of the Roman River and Domsey Brook. 1.1.6 We do not believe that the stated loss of 230 metres of river habitat has been adequately mitigated. We do not believe that it is possible to offset losses across wider river systems by providing enhancements on the Roman River and Domsey Brook, which are separate

watercourses with, in some cases, no possible habitat connection. Additionally, the measures do not mitigate for the loss of the currently open river habitat. The affected 230 metres of shaded channel will create a virtual 'dead zone' devoid of aquatic plants, natural habitat, and natural bank vegetation. There has been no explanation as to why less intrusive designs which could avoid some of the damaging impacts have not been included. 1.1.7 Contrary to section 5 of the National Policy Statement National Networks(NPSNN) (2014), we do not currently believe that the Applicant has shown that they have adequately assessed the likely significant effects of the proposed scheme on protected species and habitats or taken sufficient steps to conserve and enhance biodiversity conservation interests. 1.1.8 We also note that the Applicant, in response to our Relevant Representation (REP1-002, RR-011-004) and our concerns regarding the impact of culverts on biodiversity, has suggested that the scheme will provide significant flood risk benefits. Table 14.19 from the Environmental Statement (APP-081) summarises these benefits as being associated with flood mitigation measures proposed at Ordinary watercourses 21 and 26, and flood storage at Inworth Road, rather than due to the use of culverts for main river crossings. While we acknowledge that there will be reductions in flood risk at certain locations, our Relevant Representation highlighted that there will also be some increases in water levels associated with the new culverts on Rivenhall Brook and Domsey Brook, although mitigation is proposed (see section 2.1.5 below for further comments). Our expectation is that the use of clear span bridges would provide at least an equivalent reduction in flood risk and be less likely to cause biodiversity harm. The Applicant has not demonstrated that the use of culverts provides any flood risk or ecological benefits over and above those that would be expected to be provided by a bridge solution. 1.1.9 Discussions with the Applicant on this issue remain ongoing.

### **Applicant's Response**

The Applicant acknowledges the views of the Environment Agency.

Before responding in detail, it would be useful to first recognise the existing conditions within which the proposed scheme is planned. The existing A12 (between junction 19 and junction 25) is a large linear scheme which crosses seven main rivers (as detailed in paragraph 2.4.3 of Environmental Statement Chapter 2: The proposed scheme [APP-069]). There are therefore already crossings such as bridges and culverts in existence, which would be retained (including Boreham Culvert, River Ter Bridge, Brain

Bridge and Domsey Brook Bridge) throughout construction. The proposed scheme involves widening the existing A12 to three lanes throughout in each direction where it is not already three lane. This would mainly involve online widening of the carriageway, with offline bypasses created between junctions 22 and 23 and junctions 24 and 25. As a result, there would be a total of eight crossings of main rivers, six of which comprise existing crossings and two of which comprise new crossings on proposed offline sections of road (see Table 2.6 of Chapter 2: The proposed scheme [APP-069]). There would not be six new and extended crossings of main rivers as incorrectly stated by the Interested Party.

Any impacts should be considered within the context of the existing A12 and while it is recognised that DMRB LD 118 states 'environmental assessment reports should identify opportunities to address historic impacts from motorway and all-purpose trunk roads on biodiversity resources', it should be noted this falls under the category of 'enhancement' as opposed to mitigating impacts of the proposed scheme. It is the Applicant's view that measures to address historic impacts from the A12 would need to be proportionate and that provision of mammal ledges within existing sections of culvert on the Domsey Brook (west) and Roman River is appropriate in this instance.

All watercourses were assessed as receptors against likely significant effects as reported in Table 14.16 of Environmental Statement Chapter 14: Road drainage and the water environment (RDWE) [APP-081] and Appendix 14.3: Hydromorphology Assessment [APP-160]. The impacts of crossings on watercourses were also assessed under the requirements of the Water Environment (Water Framework Directive) England and Wales Regulations 2017 (Appendix 14.2: The WFD Compliance Assessment [APP-159]). The Environmental Statement concluded a slight adverse significance of effect for all culverts, which is not environmentally significant, as detailed in Table 14.16 of Chapter 14 [APP-081]. As stated in Section 6.4 of the WFD compliance assessment [APP-159], there would be no change to waterbody status and there would be compliance under the WFD.

River realignments have been designed in collaboration with a qualified geomorphologist to maximise environmental gain where practicable (see Appendix 9.14: Biodiversity Net Gain Report [APP-138]) and freshwater ecologists have worked closely with hydromorphologists so that beneficial features for wildlife, including natural banks, riffles, sinuosity and variation in depths, are included within the designs (as stated in paragraph 9.10.18 of Environmental Statement Chapter 9: Biodiversity [APP-076]). These include facilitating fish passage through incorporation of baffles/fish resting pools, incorporation of gravels to improve sediment substrate and overall channel heterogeneity, improvement to realignments by increasing sinuosity, improved planting along the floodplain and local measures to improve water quality such as planting (as committed to in RDWE 42 in the Register of

Environmental Actions and Commitments (REAC) within the first iteration Environmental Management Plan [APP-185]).

Please refer to the responses provided later in REP2-053-003 and REP2-053-004 of this response with respect to point 1.1.3 (passage of fish and mammals).

**REP2-053-003**

### **Sub-Question**

1.2 Fish and eels 1.2.1 Migratory fish such as the European eel (*Anguilla anguilla*), which are protected under the Eel Regulations 2009, and brown trout (*Salmo trutta*) are found within the rivers affected by the scheme. The length of proposed culverts crossing Rivenhall Brook and Domsey Brook in particular are very significant, and it is not clear that all species will use these dark unnatural tunnels. The continuity of habitat is vital, and the river systems are reliant on fish (and mammal) passage being effective and not hindered in any way. The Applicant should provide evidence that all main river crossings (new and extended) will work effectively and not be a barrier to species which require natural passage to maintain viable healthy populations. 1.2.2 East Anglian rivers contribute a critically important proportion of the adult female eels in the UK. European eels in the Blackwater catchment have been recorded and studied for more than two decades by Environment Agency staff. The eel population is monitored annually, with the Environment Agency and others working over several years to remove barriers to fish migration. 1.2.3 If the scheme introduces structures which act as hindrances or obstacles, the ability for eels to migrate upstream from the Blackwater estuary into the freshwater river system, or to travel downstream to breed in the Atlantic would be affected. Sea trout similarly could be prevented from reaching the headwaters of the catchments to breed. Coarse fish species also travel up and downstream to feed and breed, and at various times use the entire river catchment habitat. 1.2.4 During their migrations fish use the complex habitats of natural channels to feed, rest and recuperate. The Environmental Statement (APP-076) refers to the need to incorporate natural substrates in the proposed culverts to offset any negative impact on fish (paragraph 9.11.361) and invertebrates (paragraph 9.11.368). However, there is no mitigation proposed for the loss of light and river macrophytes caused by the culverts, which will have a clear impact on habitat quality and which species the rivers are able to support in these sections. 1.2.5 The new and extended crossings have the potential to act as barriers to fish movement and so fragment the available habitat, with species upstream becoming separate populations to those downstream of the A12. 1.2.6 The Applicant has not demonstrated that the proposed main river

crossings will not introduce a barrier to the movement of fish and eels. If this cannot be demonstrated, a revision of the culverts and road bridge extensions will be required to ensure uninterrupted river habitat throughout the area to protect and enhance fish populations.

### **Applicant's Response**

The Applicant recognises the value to migratory fish and eel to the environment, and the importance of maintaining migratory corridors free of obstructions.

The widening of existing bridges is considered to have minimal impact on fish. Crossings of the Brain and Blackwater would see bridges widened by approximately 30%. In both cases, these bridges are high, clear span structures that would not introduce additional barriers to fish migration. Habitats around these existing bridge structures are already influenced by the existing structures, and therefore any additional loss of function habitat from loss of aquatic flora from shading is considered negligible.

The inclusion of new culverts risks the fragmentation of habitat. Alternatives to culverts (for example clear span crossings) have been considered at all crossings; however, they were not a practicable option for the proposed scheme (Table 9.2 of Environmental Statement Chapter 9: Biodiversity [APP-076]).

For the online widening culverts, alternatives could not be provided without creating significant and lengthy delays to the existing A12 traffic. This would require the full excavation of the existing carriageway in a staged approach and because of the online nature of the road alignment, no temporary alternative route could be easily provided whilst this was undertaken.

For the new proposed Rivenhall Brook crossing, a clear span alternative is not considered feasible due to the amount of clearance between the culvert soffit/water level and the finished road level. Based on the current culvert design, this would be less than 2m, and likely less for a clear span option, which would further reduce light ingress, negating the perceived benefits of providing a wider structure and also requiring significantly higher material investment.

With respect to the new proposed Domsey Brook culvert, a clear span alternative would need to be of disproportionate width to the size of the watercourse itself (which is approximately 3m) in order to accommodate the existing bank profile. As well as requiring significantly more material investment compared to the current design, the structure would be more complex to construct and would

present a greater risk of contamination to the watercourse during construction due to the need for it to be delivered online rather than offline.

Where culverts are included, they have been designed in line with CIRIA guidelines (Culvert, screen and outfall manual C786, 2019, as per commitment RDWE34 in the REAC [APP-185]) to avoid fragmentation of migratory pathways. This includes appropriate sizing to maintain low and high flow water depths, inclusion of natural substrates, matching catchment gradients and slopes, inlets/outlets are sunk so as not to create a hydraulic jump and ensuring water velocities do not create an obstruction to fish passage.

The Applicant recognises the creation of culverts up to 60m long represents a risk to fish passage, however appropriately designed culverts (using current best practice for example the CIRIA guidelines detailed above) would not preclude migratory salmonids and eel passing through these structures. At some crossings (Domsey Brook Bridge and Roman River), the addition of baffles has been proposed to improve sediment conveyance, flow diversity and encourage fish passage (see Table 9.3 of Chapter 9: Biodiversity [APP-076]).

Field surveys undertaken in 2020 on watercourses which cross the proposed scheme recorded the presence of the notable plant river water-dropwort in one watercourse only (the River Blackwater), where no in-channel works are proposed. No other notable or protected macrophyte species were recorded. While the extension of culverts, bridges and watercourse realignments would lead to the removal of other native plant species from watercourse, it is anticipated that these species would be able to recolonise areas close the culverts and bridges, and newly created habitat within the realigned Roman River and Domsey Brook. Paragraph 9.11.260 of Chapter 9: Biodiversity [APP-076] concludes that there would be a permanent beneficial impact in terms of diversity of freshwater macrophytes from habitat gains as part of the proposed watercourse realignments.

**REP2-053-004**

### **Sub-Question**

1.3 Otters and other mammals 1.3.1 The proposed use of new culverts and the design of certain extensions has the potential to significantly impact populations of otters (*Lutra lutra*) and other mammals including water voles (*Arvicola terrestris*). Otters and

water voles are protected under the 1981 Wildlife and Countryside Act and can be found throughout the affected river systems. Both species are known to be reluctant to enter long dark tunnels, even where ledges are provided. 1.3.2 Otter fencing is proposed as mitigation to prevent animals from entering the road, and to encourage the use of mammal ledges as routes through the culverts and under bridges. However, fencing is only effective if it remains intact along its entire length throughout the operational lifetime of the road. In practice, once wildlife finds a gap through fencing it is often unable to safely exit the road. This situation is exacerbated where rigid concrete barriers, rather than permeable barriers are used within the central reservation. It is not clear which type of barriers are proposed, but in this context permeable central reservation barriers would be preferred. 1.3.3 We are aware that the existing A12 in this area acts as a significant barrier to movement and the road is responsible for a notable number of otter deaths. The Applicant is proposing to install fencing where otters are known to cross the A12, and mammal ledges in culverts on the Rivenhall Brook, Domsey Brook (west), Domsey Brook (east), and Roman River. The Environment Statement Chapter 9 Biodiversity (APP-076) states at paragraphs 9.11.332 and 9.11.333 that these measures are likely to provide a benefit. 1.3.4 As highlighted above, observed patterns of behaviour (Wilkinson and Chadwick Otter road casualties in South Wales: Recommendations for mitigation Cardiff University otter project 2012) suggest that the installation of mammal ledges, through long sections of culvert and bridges, and the use of fencing will not be effective in improving this situation, and will not compensate for the additional number and length of crossings. The Applicant should provide evidence to demonstrate that such measures can be effective. 1.3.5 Over the last 2 decades the Environment Agency has collected and collated otter road traffic deaths across Essex, Norfolk, and Suffolk. Where clean span bridges incorporate natural sloping banks that rise out of the floodplain otters are rarely killed. Where dark long culverts have been used the otter deaths increase significantly. The more natural the habitat retained, the more likely the crossing is to be used. Box and portal culverts leave little scope for river habitat continuity or for continuous sediment transfer and morphological processes to continue uninterrupted. 1.3.6 With Climate Change and the biodiversity emergency, continuity of habitats is key for species to survive. Large road and transport engineering schemes can present major obstacles for river ecosystems. Large open structures are important for mammals to travel across their territories. Smaller darker culverts are less used by mammals and present a risk to species survival on a territorial scale and also to public road user safety. Studies focussing on deer movements (Olbrich (1984) and Reed et al (1975)) have shown that structures that incorporate natural vegetation, are tall and with a wide degree of openness are more likely to be used by a full range of mammals. 1.3.6 The principles of natural spacious crossings being better for all species is repeatedly recognised in research literature and anecdotal experience. It should also be recognised that all species have wider territorial behaviour than usually considered and will try to travel widely across human



barriers. It is prudent to design and build resilience into the landscape scale to avoid problems. 1.3.8 Water vole have been almost driven to extinction in Essex by alien invasive mink, but populations are recovering and there is an advanced mink eradication programme throughout East Anglia. It is likely that water voles will spread back across their previous range where habitat allows. The proposed long crossings, in particular the culverts proposed on Rivenhall Brook and Domsey Brook, are likely to hinder this recolonisation and do not provide natural banks for shelter or food. More open, wider crossings with natural light and natural habitat would help prevent populations of this protected species becoming irrevocably fragmented. 1.3.9 The hard concrete and steel revetment which is proposed on much of the natural river banks around the crossings will have a direct negative result in removing water vole habitat permanently. This does not appear to have been fully accounted for, nor is adequate mitigation proposed. 1.3.10 Our current view is that it is more appropriate to use design measures to avoid impacts and ensure that a more natural route to crossing the proposed road is available. This is in accordance with the hierarchical approach required by the Design Manual for Roads and Bridges (DMRB) LD118 Biodiversity (March 2020), and will more effectively prevent fragmentation of species populations, loss of connectivity and barriers to movement. Paragraph 5.36 of the NPSNN includes a similar requirement for applicants to demonstrate that: “developments will be designed and landscaped to provide green corridors and minimise habitat fragmentation” Clear span open bridge structures with natural vegetated banks on either side make mammal transit under the proposed new road far more likely. 1.3.11 The proposed ordinary watercourse crossings will subsume many ditch and small watercourses under the new widened road. Even ditches and small watercourses can provide connective habitat for water voles and otters. Inadequate consideration appears to have been given for mammal passage through the ordinary watercourse crossings. This must be addressed for protected species legislation and agreed with the Lead Local Flood Authority. 1.3.12 Ordinary watercourse crossings can often be responsible for otter road traffic deaths where adequate consideration is not given to safe mammal passage. 1.3.13 We note that large circular pipes (600mm and upwards) are proposed for ordinary watercourses. These are unsuitable for otter passage in long dark crossings where there are high water flows. Alternative solutions will need to be provided so that otters can use crossings where any high flows are periodically expected.

### **Applicant's Response**

1.3.2

The Applicant acknowledges the Environment Agency's preference for permeable central reservation barriers over rigid concrete

barriers. However, the central reservation for the proposed scheme would be rigid concrete in line with the national standards as part of DMRB and General Principles and Scheme Governance Design (GD 300) E/7.5, whereby 'central reserve safety barrier shall be rigid, have a serviceable life of not less than 50 years and be designed such that after testing in accordance with BS EN 13-17-1 [Ref 27.N] and BS EN 1317-2 [REF-26.N], it does not require realignment, replacement or repair'.

A rigid concrete barrier is the only type of barrier that provides the vehicle containment which is needed to prevent crossover collisions. It is being universally used on all Smart Motorways and increasingly on dual carriageways because of worker and user benefits. In worker safety it avoids a high-risk maintenance task which is present in repairing steel barriers due to the fact that post-crash repairs are not required for concrete barriers. Concrete barriers also protect road users because they prevent most vehicles leaving the offside lane from entering the opposing carriageway, which otherwise would typically result in a very high severity multiple-casualty collision. Motorcycle rider injury is typically much less severe where concrete barriers are used because they slide along the face of the barrier after impact, whereas they more typically go under the rails of a steel barrier and suffer catastrophic injuries on the posts, and/or into the opposing carriageway.

The specification and location of otter fencing (with the intention of dissuading otters from crossing the proposed scheme) is not yet known and will be refined at detailed design stage, during which the Applicant welcomes ongoing engagement with the Environment Agency. The Applicant acknowledges the issues raised by the Environment Agency with respect to gaps in the fencing and the importance of adequate maintenance.

#### 1.3.4 to 1.3.5

The Applicant acknowledges the study presented by Wilkinson and Chadwick; however, the study is limited by the lack of culvert dimensions in order to draw conclusions about which length of culverts are or are not effective.

There is anecdotal evidence for the use of mammal ledges by otters, for example the Otter Survey of Wales 2015-2018 Kean EF, and Chadwick EA 2021. Otter Survey of Wales 2015-2018. NRW Report No: 519, NRW.

provides evidence of an otter using an underpass in Carmarthenshire. However, the report goes on to acknowledge the lack of a national database of mitigation measures hinders research into their effectiveness and assessment of population level impacts. The

Applicant is therefore proposing an additional monitoring commitment which will be formally added to the Register of Environmental Actions (REAC) [APP-185] at Deadline 4. This would require the Applicant to undertake post-construction monitoring of the structures with mammal ledges to determine whether the ledges are utilised by wildlife including otters for safe passage under the A12. Data collected would be used to inform the design of river crossings for future National Highways projects.

Highways England (1999) HA 81/99 Nature conservation advice in relation to otters, Design Manual for Roads and Bridges, Volume 10, Section 4. Please note this guidance is now withdrawn however it is included here as it is considered relevant to the points being discussed.

and Grogan et al., 2001 Grogan, A., Philcox, C., Macdonald, D. (2001). Nature Conservation and Roads: Advice in Relation to Otters. WILDCRU, Oxford

, suggest that the suitable height and width of an underpass will depend on the length of the underpass, with recommended minimum sizes being 600mm diameter for underpasses up to 20m long, 900mm diameter for underpasses between 20 and 50m long, and for underpasses over 50m, a box section of 1m x 2-5m wide. The proposed new culverts for the Rivenhall Brook and Domsey Brook would have cross sections with areas in excess of 1m x 2m (the Rivenhall Brook culvert would be 4.5m by 3.1m and the Domsey Brook Culvert would be 2.7m by 2.7m).

It is documented in literature that the majority of deaths coincide with high river flow conditions, which implicates the way water is channelled through these crossings as a factor involved in road traffic accidents (Philcox et al., 1999 Philcox C.K., Grogan A.L. and MacDonald D.W. (1999) Patterns of otter *Lutra lutra* road mortality in Britain. Journal of Applied Ecology, Volume 36, No. 5, pp.718-762

). The mitigation for the proposed scheme has therefore been developed to ensure there are safe routes of passage during time of flooding through provision of mammal ledges. Ledges would be positioned at least 150mm above the 1 in 100-year flood level to ensure safe passage even during the most extreme flood events. The mitigation has focused on the main watercourses across the study area.

The assessment of the potential effects on otters due to fragmentation has been done in the context of the current baseline. As described in paragraphs 14.8.7 to 14.8.10 of Chapter 14: Road drainage and the water environment [APP-081], the proposed

scheme lies within the catchments of the River Blackwater and the River Colne. The River Blackwater has two major tributaries: the River Brain, which meets it just south of Witham, and the River Chelmer, which meets it just east of Maldon. The River Blackwater discharges into the Blackwater Estuary.

The River Colne is a small river that passes through Colchester. It is not a tributary of any other river, instead having an estuary that joins the North Sea to the east of Mersea Island.

The proposed scheme crosses seven Main Rivers. These are Boreham Brook, River Ter, River Brain, Rivenhall Brook, River Blackwater, Domsey Brook and the Roman River. The only main water course affected by the proposed scheme which is part of the River Colne catchment is the Roman River. The other six watercourses are within the catchment of the River Blackwater.

As per Figure 2 of Appendix 9.10: Riparian Mammal Survey Report [APP- 134], it is important to note that there is an existing otter population within the Order Limits with clusters of spraints recorded on the Boreham Brook between the A12 and B1137, along the River Ter (north and south of the A12), on the River Brain (north west of the A12), along the River Blackwater from the confluence with the River Brain to the confluence of the Domsey Brook, on the Rivenhall Brook (north and south of the A12), on the Domsey Brook (east and west of the western crossing of the A12), and lastly on the Roman River (south of the A12). This data suggests conditions are suitable for otters to survive alongside in its existing condition.

#### Boreham Brook

As per paragraphs 2.2.1 and 2.2.2 of Appendix 14.5: Flood risk assessment [APP-162], the Boreham Brook is a tributary of the River Chelmer and is crossed by the Boreham Brook up as shown in Plate 1. The confluence with the River Chelmer is approximately 2.5km downstream of the A12/Great Eastern Main Line (GEML) railway culvert.

**Plate 1: Boreham Brook Culvert**



As per paragraphs 2.2.7 and 2.2.8 of Appendix 14.5: Flood risk assessment [APP-162], no works are required to any of the existing crossings of the Boreham Brook (nor are any new crossings proposed).

Therefore, there is no change to the baseline with respect to fragmentation at this location.

River Ter

As per paragraph 2.3.1 of Appendix 14.5: Flood risk assessment [APP-162], the River Ter is a tributary of the River Chelmer, which

is crossed by the existing A12 (via the River Ter Bridge, as shown in Plate 2).

**Plate 2: River Ter Bridge**



As per paragraph 2.3.8 of Appendix 14.5: Flood risk assessment [APP-162], the proposed scheme would involve upgrading the highway to three lanes per carriageway, however this widening would be achieved with no change to the existing bridge structure or highway embankment. There would be no change to the River Ter bridge and therefore there is no change to the baseline with respect to fragmentation at this location.

## River Brain

As per paragraph 2.4.1 of Appendix 14.5 [APP-162], the River Brain is a tributary of the River Chelmer. The river flows north-west to south-east underneath the existing A12 through a bridge (Brain Bridge, as shown in Plate 3) prior to its confluence with the River Blackwater approximately 400m downstream.

**Plate 3: Brain Bridge**



The span beneath the existing bridge is 28.7m wide providing a relatively open space. As per Table 2.5 within Chapter 2: The proposed scheme [APP-070], the existing structure over the River Brain would be widened to accommodate the new A12 cross-section, with three running lanes in each direction, a central reserve, and associated hard strips and verges. The structure would be extended by approximately 7m to the east and 5m to the west. This relatively small increase in the width of the bridge would have low effect on the 'openness' and is not anticipated to increase the likelihood on the structure becoming a barrier to otters. The provision of a mammal ledge would improve its permeability at times of high water flow. Overall, it is assessed that works in this location would not be significant with respect to the permeability to otters.

#### Rivenhall Brook

As per paragraph 2.5.1 of Appendix 14.5: Flood risk assessment [APP-162], the Rivenhall Brook is a tributary of the River Blackwater.

As per paragraph 2.5.7 of Appendix 14.5: Flood risk assessment [APP-162], the proposed scheme would involve a new offline crossing of the Rivenhall Brook adjacent to the current A12. It is proposed that the Rivenhall Brook would be realigned, and that the new A12 crossing of the river would be through a 46m long culvert structure with a span of 4.5m and an internal height clearance of 3.1m which is wider and significantly taller than the existing crossing of the Rivenhall Brook (which has a span of 4.2m and an internal height clearance of 2.8m), although it is acknowledged the new crossing would be longer. The new crossing would be located approximately 90m south-east of the existing A12 culvert crossing of the river.

Due to the increased width of the new culvert compared to the old culvert, and the provision of a mammal ledge which is not present in the existing structure, it is assessed that the proposed crossing would be more permeable to otters. While the existing structure would remain in situ and would therefore continue to have the potential to fragment the watercourse, the road above it would carry significantly less and slower traffic (the speed limit on the detrunked sections of the A12 would be 40mph or 50mph compared to the current 70mph) and therefore the risk of mortality of otters from crossing the road would be decreased at times when the culvert cannot be passed through due to flooding. Overall, it is assessed there would be an improvement on the Rivenhall Brook.

#### River Blackwater

As per paragraph 2.6.1 of Appendix 14.5 [APP-162], the River Blackwater is a tributary of the River Chelmer. The watercourse flows



south-west underneath the existing A12 via a 29m wide bridge (Ashmans Bridge, as shown in Plate 4), before continuing flowing south-west until its confluence with the River Chelmer approximately 12km downstream of the A12 crossing.

**Plate 4: Ashmans Bridge**



As per paragraph 2.6.2 of Appendix 14.5 [APP-162], the Rivenhall Brook and the River Brain join the River Blackwater at 1.8km and 5.8km downstream of the A12 Blackwater crossing, respectively. Approximately 1.7km upstream of the A12 Blackwater crossing, the Domsey Brook joins the Blackwater from the north-east.

As per Table 2.5 of Chapter 2: The proposed scheme [APP-070], Ashmans Bridge would be upgraded to accommodate a cross-section with three running lanes in each direction, a central reserve, and associated hard strips and verges. The structure would be asymmetrically extended by approximately 10.1m to the south to accommodate the increased cross-section.

The Applicant notes that as per paragraph 1.5.10 of the Environment Agency's Written Representation [REP2-054], the Interested Party agrees 'replicating the existing structure will not create a barrier to fish or mammals. Therefore, we have no objection to the proposed structure'. Therefore, there will be no effect on the permeability of the River Blackwater to otters.

#### Domsey Brook

As per paragraph 2.7.1 of Appendix 14.5 [APP-162], Domsey Brook originates north of the existing A12 around Marks Tey and is crossed by the existing A12 twice. The upstream crossing is to the south-west of Marks Tey via two circular culverts (both 1m diameter x 45m long). Approximately 6.2km downstream of the upstream crossing, the A12 crosses Domsey Brook for a second time, via a 38.1m long crossing structure with a cross-section of 7m x 5.5m. Approximately 1.7km downstream of this second A12 crossing, the watercourse joins with the River Blackwater.

**Plate 5: Domsey Brook Bridge (west)**



As per Table 2.5 of Chapter 2: The proposed scheme [APP-070], a new culvert would carry the realigned Domsey Brook under the new A12 bypass. The culvert would be located approximately 100m from the existing A12 and would have a length of 60m. As per paragraph 2.8.7 of Appendix 14.5 [APP-162], the new structure would have a cross-section of 2.7m x 2.7m. This would be significantly more permeable to otters than the existing twin 1m diameter pipes and it should be noted that these dimensions are in line with National Highways (1999) and Grogan et al., 2001 (detailed above). Whilst the existing pipes would remain in situ and

would therefore continue to have the potential fragment the watercourse, the road above it would carry significantly less and slower traffic (the speed limit on the detrunked sections of the A12 would be 40mph or 50mph compared to the current 70mph) and therefore the risk of mortality of otters from crossing the road (i.e. at times the pipes cannot be passed through due to flooding) will be decreased. Overall, it is assessed there would be an improvement on the Domsey Brook at the eastern crossing.

As per Table 2.5 of Chapter 2: The proposed scheme [APP-070], at the existing A12 western crossing of the Domsey Brook (Domsey Brook Bridge), the proposed scheme would involve widening and realigning the existing crossing. This would require lengthening the existing arch structure which the Domsey Brook flows through under the existing A12 (approximate dimensions 7m x 5.5m x 38.1m – see paragraph 2.7.7 of Appendix 14.5 [APP-162]) by approximately 34.6m. It is considered the increase in length would be offset by the provision of the mammal ledge in this location and that overall, there would not be a significant decrease in the permeability of the structure to otters.

#### Roman River

As per paragraph 2.9.1 of Appendix 14.5 [APP-162], the Roman River originates north of the A12, in Willow Wood. From there, the watercourse passes through woodland and agricultural land before being crossed by the GEML railway via a bridge and running beneath the A12 via a 40m long culvert with a cross-section of 4.8m x 2.1m in a southerly direction. Downstream of this, the channel flows north-east alongside the A12 and then south-east through woodland, agricultural land, and an urban area before it joins with the River Colne (approximately 15km downstream of the A12 crossing).

As per paragraph 2.9.8 of Appendix 14.5 [APP-162], at the existing A12 Roman River crossing, the proposed scheme would involve extending the existing watercourse culvert (retaining existing cross-sectional dimensions of width 4.8m x height 2.1m) by approximately 12m. It is considered the increase in length would be offset by the provision of the mammal ledge in this location and that overall, there wouldn't be a significant decrease in the permeability of the structure to otters.

#### Summary

Of the eight main watercourse crossings, seven are on watercourses within the catchment of the River Blackwater and one is within the catchment of the River Colne.

Of the crossings of the Blackwater there would be no effect on the Boreham Brook or River Ter as no changes to the structures are

proposed. The Environment Agency is in agreement that there would be no effect on mammals from the widening of Ashmans Bridge (River Blackwater). Changes to the Brain Bridge would maintain a large open space which, despite the widening of the bridge, in the view of the Applicant would be improved due to the addition of a mammal ledge. The new most easterly crossing of the Domsey Brook would replace twin 1m diameter circular culverts with a 2.7m x 2.7m culvert with a mammal ledge which is considered a significant improvement. The more westerly crossing of the Domsey Brook would be offset through the provision of mammals ledges.

Only a single main watercourse within the River Colne catchment would be affected by the proposed scheme. Although the Roman River culvert would be extended, this would be offset through the provision of mammals ledges. Considering it is the only crossing on the catchment, changes are not considered significant at a catchment scale.

While it is acknowledged by the Applicant that the optimal approach for river crossings is the use of wide-span bridges which permit the retention of the riverbank under the bridge, as per Philcox (1999), this same article notes that where bridges are impractical, over-sized culverts incorporating ledges above the water level may achieve similar results. In addition, Grogan et al., 2001 conclude that 'where bridges are impractical, culverts incorporating ledges above the water-level may achieve similar results, providing that ledges and air space above the water do not become covered during winter flows'. This supports the conclusion in Chapter 9: Biodiversity [APP-076] that the provision of culverts and associated mammal ledges, where practicable and in line with the specification provided above, would appropriately mitigate any impacts on otter. It is the view of the Applicant that this approach is proportionate to the scale of impact, particularly considering the baseline situation detailed above.

### 1.3.6

The Applicant acknowledges the potential for linear infrastructure schemes to present barriers to the movement of wildlife, however, the potential for adverse impacts on species, particularly otter, should be considered in context with the existing A12. With respect to deer, the number of known deer vehicle collisions within the Order Limits between 2010 and 2019 was low compared to other nearby areas such as Colchester and Great Baddow (as presented in Distribution of Known Deer Vehicle Collisions 2010 – 2019 based on research undertaken in England and Wales by The British Deer Society with support from National Highways). Having said this, the Applicant will be considering the use of deer fencing at detailed design stage.

### 1.3.6 (paragraph number repeated in the WR)

The Applicant recognises the potential for species to exist outside of defined ranges and permeability of the proposed scheme for wildlife has been considered within the design. This is demonstrated by the provision of culverts and associated landscape planting to guide mammals to these features, which would promote continued ecological function of the landscape once the proposed scheme is operational (as committed to in BI32 in the REAC [APP-185]).

### 1.3.8

The Applicant acknowledges the decline in water vole populations as a result of predation by mink, and notes in paragraph 9.11.179 of Chapter 9: Biodiversity [APP-076] that the sizes of water vole populations within the Order Limits could fluctuate significantly, particularly should management of American mink be undertaken within the river catchment.

The proposed Rivenhall Brook Culvert is a 46m long box culvert, measuring 4.5m wide x 3.6m tall. The proposed Domsey Brook Culvert is a 60m long box culvert, measuring 2.7m wide x 2.7m tall. Both crossings would be fitted with mammal ledges as mitigation for fragmentation impacts across the proposed scheme (positioned at least 150mm above the 1 in 100-year flood level and with at least 600mm headroom). Mammal ledges are labelled on the Environmental Masterplan [APP-086, APP-087 and APP-088].

The Water Vole Mitigation Handbook is explicit in stating that while water vole are known to use culverts under roads of certain types and sizes, it is not known which culvert design and size works best, nor which will not be used at all by water vole. The handbook suggests that box culverts up to 35m in length are known to be effective in allowing the movement of water vole, based on the authors' personal observation. While this information is useful, it does not mean by omission that culverts of a different (longer) length are ineffective.

In addition, as stated in Section 9.10 of Chapter 9 [APP-076], there would be beneficial impacts on water vole associated with habitat creation, particularly within ecological mitigations areas south of junction 19 and south of the River Brain, where pond and ditch networks are proposed (as shown on Figure 2.1 Environmental Masterplan [APP-086 and APP-087]). These areas would provide an increase in both the quality and area of water vole habitat available (paragraph 9.11.181 of Chapter 9 [APP-076]).

### 1.3.9

It is acknowledged that the structures themselves would have solid concrete retaining walls which would be unsuitable for burrowing. However, this would be mitigated through the habitat creation mentioned above (see response to point 1.3.8) which would provide sufficient alternative suitable burrowing habitat for water vole.

#### 1.3.10

As noted in Table 9.2 in Chapter 9: Biodiversity [APP-076], clear span bridges were considered at all crossings, however, have not been taken forward as a practicable option for the proposed scheme.

With respect to the National Policy Statement for National Networks (NPSNN) (specifically paragraph 5.36), this has been addressed through mitigation measures as detailed in Section 9.10 of Chapter 9 [APP-076]. Impacts would be minimised by reducing the construction footprint as far as practicable, following standard mitigation, and through landscape design and provision of enhancements where practicable. The mitigation hierarchy has been followed to, where practicable, modify the design to avoid impacts to valuable and priority habitats (including hedgerows, watercourses and treelines) in accordance with NPSNN paragraph 5.23.

#### 1.3.11

As stated in paragraph 2.5.47 of Chapter 2: The proposed scheme [APP-070], there would be 30 new culvert structures for Ordinary Watercourses in addition to those proposed for Main River crossings. The Applicant acknowledges that during statutory consultation the Environment Agency commented on two Ordinary Watercourses in particular (as detailed in Table 9.3 of Chapter 9 [APP-076]). In summary, the Applicant recognises that Ordinary Watercourse 15a would be cut off from its source as a result of the realignment of Rivenhall Brook. However, this watercourse is a largely dry, heavily vegetated channel thought to only receive flow during periods of heavy rainfall. Mitigation has therefore not been considered for this watercourse, however, the excavation of a new outfall structure at Ordinary Watercourse 15a would provide the watercourse with sufficient flow once active. With respect to Ordinary Watercourse 11, it is acknowledged that the series of culverts present is extensive, however, no harm is predicted for biodiversity. Amending the angle of the culvert to reduce its length was considered but ruled out due to requiring a channel realignment that would encroach on an active quarry.

#### 1.3.13

In addition to culverts for main river crossings, the Applicant proposes the provision of numerous (600mm, 1,200mm and 1,500mm) culverts for minor ditches which would enable mammals, reptiles and great crested newt to safely cross beneath the proposed scheme (as committed to in BI32 of the REAC [APP-185]).

While it is acknowledged that paragraph 5.3.3 of the NPSNN requires that opportunities for building in beneficial biodiversity features are maximised, there is an important distinction between building in beneficial biodiversity features and mitigating the existing adverse impacts on existing infrastructure.

It is considered that the level of mitigation proposed, as described above, is proportionate to the level of impact as assessed in Chapter 9: Biodiversity [APP-076]. The focus of the mitigation proposals is on the main river crossings, as these are where the habitat is most suitable for otter and water vole, and therefore where these species are most likely to cross the proposed scheme.

**REP2-053-005**

### **Sub-Question**

1.4 Aquatic Ecology 1.4.1 The aquatic ecology of the rivers and watercourses will be permanently damaged by the long dark crossings proposed on the Rivenhall Brook and Domsey Brook. Research has shown that invertebrates such as water breeding insects will not enter or use long culverts, and that insect populations are adversely affected on rivers that are bisected by them (Blakely, Harding, Mcintosh et al 2006 and Mainas and Kriska 2011). Many terrestrial invertebrates rely on flowing freshwater habitats at stages in their development so impacts will not be limited to wholly aquatic species. The Environmental Statement (APP-076 paragraph 9.11.251) states that there will be a permanent beneficial impact from additional macroinvertebrate habitat being created, but this does not take into account the damaging impact of having permanent long 'dead zones' within a contiguous habitat corridor where culverts will be built or lengthened. 1.4.2 Freshwater macrophytes will be lost completely throughout the lengths of culverts, although this is described overall as a neutral impact in the Environmental Statement (APP-076 Summary of construction/operational effects on biodiversity receptors Table 9.26/9.31). It is proposed that the losses are mitigated for elsewhere, despite the importance of continuous habitat being vital for conserving an intact river ecosystem. No adequate explanation or justification for the loss of natural river habitat on these sections has been provided, with no adequate mitigation.



Clear span bridges would better serve to allow light and natural water life to continue through the crossings, providing multiple benefits with fewer impacts.

### **Applicant's Response**

The Applicant acknowledges the Environment Agency's comments and recognises the permanent loss of habitat within culverts and crossings within Environmental Statement Chapter 9: Biodiversity [APP-076] paragraph 9.11.251, and fragmentation of habitats in paragraph 9.11.117.

The 'neutral' assessment of effect on freshwater macroinvertebrate and aquatic macrophytes considers the localised permanent loss of aquatic habitat (supporting ubiquitous species, common to the wider catchment) against the creation of new river alignments that improve habitat diversity and opportunity for aquatic flora and fauna.

Alternatives to culverts (for example clear span crossings) have been considered at all crossings; however, they were not a practicable option for the proposed scheme (Table 9.2 of Chapter 9: Biodiversity [APP-076]).

**REP2-053-006**

### **Sub-Question**

1.5 Proposed Crossings River Brain 1.5.1 It is proposed to upgrade the existing highway to 3 lanes per carriageway at this crossing, which will require the widening of the existing embankment on both sides by up to 14m. There will be an extension to the existing bridge by approximately 7m on the east side and 5m on the west. The bridge spans a distance of approximately 10m. 1.5.2 The watercourse at the existing crossing currently includes a concrete bed with a high sill, and a further raised lower trackway and raised upper trackway. This has the effect of forming an unnatural, hard, flat riverbed which holds up the upstream water level, resulting in a silty, shallow, slow flowing ponded section over a concrete bed which almost completely dries out in summer. 1.5.3 The unnatural bed exposes any fish or invertebrate species to easy predation. For endangered species such as European eel, the migrating young eels and elvers are particularly vulnerable at this location. We have long term concerns over this existing structure, specifically the hard unnatural base of the river. 1.5.4 The proposed extended structure appears to replicate this poor design

arrangement. This will further negatively affect the ecology of the watercourse by worsening fish passage at low flows and reducing natural in-channel habitat. The raised sill will, if continued at the same level, risk introducing a step into the bed of the river which is likely to hinder upstream fish and eel movement. In turn, this could lead to a direct deterioration of fish status under the WFD/WER and is therefore unacceptable. The new section should preferably include a natural bed or alternatively an engineered and designed low-flow channel. Opportunities to improve the existing poorly designed concrete bed should also be assessed as enhancement measures, in accordance with section 4.9.1 of DMRB LD118 Biodiversity Design (March 2020). 1.5.5 Our records show the presence of European eel and water vole on the River Brain upstream from the crossing, and downstream within the River Blackwater. Water vole are re-colonising Essex rivers following extermination by predatory American mink. Mink eradication is progressing well, but river habitat improvements need to continue to accommodate water voles and other native species which are beginning to return.

### **Applicant's Response**

The Applicant notes the views of the Environment Agency regarding the River Brain crossing. The sill is integral to the structure of the crossing. To lower the sill would not be possible. To change the level of the sill would require demolition of the complete structure and rebuild. All watercourses were assessed as receptors against likely significant effects as reported in Environmental Statement Chapter 9: Biodiversity [APP-076] and Chapter 14: Road Drainage and the and the Water Environment (RDWE) [APP-081] (specifically Table 14.16), and Appendix 14.3: Hydromorphology Assessment [APP-160]. The impacts of the River Brain crossing were assessed under the requirements of the Water Environment (Water Framework Directive) England and Wales Regulations 2017 (Appendix 14.2: The WFD Compliance Assessment [APP-159]). As stated in Section 6 of the WFD compliance assessment [APP-159], there would be no change to waterbody status and there would be compliance under the WFD. Mitigation measures have been proposed to ameliorate any potential effects to waterbodies as a result of effects from the proposed crossings (RDWE commitments 39 to 42 in the REAC [APP-185]).

In response to point 1.5.5 of the Interested Party's written representation, the Applicant recognises the predation of water vole by mink, and the potential for water vole populations to fluctuate significantly in the period up to construction should management of mink be undertaken within the river catchment (as stated in paragraph 9.11.179 of Chapter 9: Biodiversity [APP-076]). Pre-construction surveys would be undertaken for all watercourses and ditches with potential to support water vole within the Order

Limits (as committed to in BI11 in the Register of Environmental Actions and Commitments [APP-185], and the design of the proposed scheme would be modified where practicable to avoid impacts to any existing or new burrows. In addition, two ecological mitigation areas required for reptiles and created in advance of construction have been designed to include suitable water vole habitat in the event that further water vole mitigation is required, therefore increasing the availability of suitable water vole habitat within the Order Limits should water vole populations increase.

**REP2-053-007**

### **Sub-Question**

Rivenhall Brook 1.5.6 A new crossing of Rivenhall Brook is proposed, located 90m south east of the existing crossing which is to be retained. The additional crossing is currently proposed as a 46m box culvert, being approximately 4.5m wide x 3.5m tall, with a natural bed. There appears to have been no consideration of more ecologically sensitive alternatives to the use of a culvert at this location. 1.5.7 The proposed use of a culvert does not appear to have taken into consideration the importance of the complex river ecosystem, and it seems to offer little scope to incorporate meaningful improvements to reduce the impact on biodiversity. 1.5.8 It has not been demonstrated that aquatic invertebrates, mammals, and fish would travel through a structure of this nature, which would result in loss of continuous habitat and lead to species population and habitat fragmentation. Therefore, it is our view that the use of a culvert for this new crossing is unacceptable. Natural banks and semi-natural riparian habitat are key components of a river ecosystem which could be provided by a better designed wider crossing such as a clear span bridge. The crossing should be as wide and light as possible and with a natural channel and natural margins. Any increase in height need not be considerable. 1.5.9 Our records show European eel and water vole upstream of the crossing, and downstream on the River Blackwater.

### **Applicant's Response**

The Applicant notes the views of the Environment Agency with regard to the nature of the proposed crossing of Rivenhall Brook. In summary, while culverts are not favoured, the assessment on watercourses concluded no significant effects (see Table 14.16 in Environmental Statement Chapter 14: Road drainage and the water environment [APP-081]; and Appendix 14.2: The WFD

Compliance Assessment [APP-159]). Measures have been proposed in order to ameliorate any potential effects to waterbodies as a result of effects from the proposed culverts reference to these measures in REAC [APP-185; RDWE reference 39, 40 and 42]). These include facilitating fish passage through incorporation of baffles/fish resting pools, incorporation of gravels to improve sediment substrate and overall channel heterogeneity, improvement to realignments by increasing sinuosity, improved planting along the floodplain and local measures to improve water quality such as planting (reference to these measures in REAC [APP-185; RDWE reference 39, 40 and 42]).

Please refer to the response provided earlier in REP2-053-003 of this response with respect to impacts on eels and migratory fish.

Please refer to the response provided earlier in REP2-053-004 of this response with respect to impacts on mammals (otter and water vole).

**REP2-053-008**

### **Sub-Question**

River Blackwater 1.5.10 The existing Ashmans bridge is a wide, open structure. It is proposed to be extended by 10m to south. Replicating the existing structure will not create a barrier to fish or mammals. Therefore, we have no objection to the proposed structure, but opportunities should be taken to retain natural banks in preference over hardened revetment. 1.5.11 Natural banks provide safe habitat for a wide range of species, and mammals such as otter use the varied terrain provided by natural sloping banks under bridges to travel upstream safely in preference to going across busy roads. 1.5.12 As highlighted, the Blackwater system forms a migratory route for the European eel, hosts brown trout, and water voles have also been recorded in the area of the crossing. This crossing provides advantages for people and wildlife and delivers the type of multiple long-term benefits which we expect from good design on a nationally significant project that will be in place for years to come.

### **Applicant's Response**

The Applicant notes the views of the Environment Agency. The approach to channel banks has been to consider how best to ameliorate any potential effects of revetment from extending the bridge length by improved planting along the floodplain and local

measures to improve habitat. Soft bank is not being provided due to the fact that the bridge length is being extended, making it difficult to implement softer banks. Softer banks would be prone to erosion with localised scour occurring; the banks are steep and therefore the gradient and profile would make them unstable; and tie in with existing would be difficult. Reference to Chapter 9: Biodiversity [APP-076] and Chapter 14: Road Drainage and the and the Water Environment (RDWE) chapters of the Environmental Statement [APP-081] (specifically Table 14.16); and Appendix 14.2: The WFD Compliance Assessment [APP-159]) impact assessment section 6; Table 6.2.

**REP2-053-009**

### **Sub-Question**

Domsey Brook 1.5.13 For the western crossing of Domsey Brook, it is proposed to extend the existing arch bridge by 35m to the south east. The channel immediately upstream of the crossing will be realigned. 1.5.14 The proposed extension replicates the existing narrow arch structure and includes a flexible stone mattress base. It has not been demonstrated that the proposed extension will not introduce a further barrier to species movement and is therefore currently unacceptable. The base of the proposed extension should be lowered to provide a natural bed of gravel and loose stone and to enable a narrow, low flow channel to establish. 1.5.15 Options for widening the opening and including natural banks should be considered and assessed. Any opportunities to bring in more natural light to the existing structure should also be assessed, for example a light well in the carriageway central reservation. 1.5.16 Records show water vole present upstream and downstream of the crossing. 1.5.17 For the eastern crossing, a new 60m culvert is proposed, to be located approximately 100m to the south of the existing (retained) crossing. 1.5.18 Unless it can be demonstrated that the use of a culvert for this new crossing would not prevent movement of aquatic invertebrates, mammals and fish, the proposed approach is unacceptable. A clear span bridge would deliver a sustainable development solution here without the potential barriers to fish, eels, mammals, plants, and invertebrates that a long dark concrete tunnel will either exclude or deter. We wish to see a design which avoids unnecessary negative impacts on biodiversity. The crossing should be designed with biodiversity as a priority and should be as wide as possible and with a natural channel and riparian corridor along the banks.

## Applicant's Response

The Applicant notes the views of the Environment Agency. It is not possible to incorporate a clear span bridge in this location. We have tried to incorporate as much natural light within the designs where possible. The requirement under the NPSNN is that development should avoid significant harm to biodiversity, including through mitigation and that applicants have taken measures to ensure species and habitats are protected from the adverse effects of development. . All watercourses were assessed as receptors against likely significant effects as reported In Chapter 9: Biodiversity [APP 076] and Chapter 14: Road Drainage and the and the Water Environment (RDWE) chapters of the Environmental Statement [APP-081] (specifically Table 14.16) and Appendix 14.3: Hydromorphology Assessment [APP-160]. The impacts of the Domsey Brook western crossing were assessed under the requirements of the Water Environment (Water Framework Directive) England and Wales Regulations 2017 (Appendix 14.2: The WFD Compliance Assessment [APP-159]). As stated in Section 6 of the WFD compliance assessment [APP-159] there would be no change to waterbody status and there would be compliance under the WFD. Mitigation measures have been incorporated to ameliorate any potential effects to waterbodies as a result of effects from the proposed crossings, including addition of sediment; incorporation of features to improve naturalness of channel (REAC commitments RDWE 39 and 42 [APP-185]).

Please refer to the responses provided earlier in REP2-053-003 (for impacts on eels and migratory fish), REP2-053-004 (for impacts on otter and water voles) and REP2-053-005 (for impacts on freshwater macroinvertebrates and aquatic macrophytes) with respect to points 1.5.16 and 1.5.18 of the Interested Party's written representation.

**REP2-053-010**

## Sub-Question

Roman River 1.5.19 It is proposed to widen the existing A12 southbound highway embankment and extend the existing culvert by 12m. The existing culvert is approximately 40m long and 5m wide. The channel to the south of the A12 is to be realigned. Although already affected by the current A12 crossing, the Roman River is a SSSI river with key brown trout and European eel populations which have unusually free direct access from the Colne estuary into the freshwater system. 1.5.20 We acknowledge the improved

sinuosity of the downstream section as an enhancement on the existing straightened section, but the Applicant must also demonstrate that the extended culvert crossing is not going to make fish and mammal passage more difficult. 1.5.21 The Applicant has not provided any assessment of the current poor culvert crossing which should be provided in accordance with DMRB LD118 Biodiversity Design March 2020 section 4.9.1: "Environmental assessment reports should identify opportunities to address historic impacts from motorway and trunk roads on biodiversity resources". 1.5.22 The ability for fish, including eels and brown trout, to pass through this culvert should be fully assessed. A similar assessment regarding mammal passage should also be completed. In each case, as well as ensuring passage through the current culvert, we wish to see the biodiversity design hierarchy of mitigation applied to the new design to avoid worsening the situation. Opportunities to provide improvements should be considered, including options to increase the width and height of the crossing extension to incorporate riparian river bank habitat.

### **Applicant's Response**

The Applicant notes the views of the Environment Agency with regard to the nature of the proposed crossing of Roman River. In summary, while culverts are not favoured by the Environment Agency, the assessment on watercourses concluded no significant effects (see Table 14.16 in Environmental Statement Chapter 14: Road drainage and the water environment [APP-081]; and Appendix 14.2: The WFD Compliance Assessment [APP-159]). Measures have been incorporated in order to ameliorate any potential effects to waterbodies as a result of effects from the proposed culverts (REAC commitments RDWE 39 and 42 [APP-185]). These include facilitating fish passage through incorporation of baffles/fish resting pools, and incorporation of gravels to improve sediment substrate and overall channel heterogeneity, and recommendations for additional planting.

As mentioned earlier in sub-part 002 of this response, any impacts should be considered within the context of the existing A12 and while it is recognised that DMRB LD 118 states 'environmental assessment reports should identify opportunities to address historic impacts from motorway and all-purpose trunk roads on biodiversity resources', it should be noted this falls under the category of 'enhancement' as opposed to mitigating impacts of the proposed scheme. It is the Applicant's view that measures to address historic impacts from the A12 would need to be proportionate and that the mitigation provisions described above are appropriate in this instance.

Please refer to the responses provided earlier in REP2-053-003 (for impacts on eels and migratory fish) and REP2-053-004 (for

impacts on otter and water voles) with respect to points 1.5.20 and 1.5.22 of the Interested Party's Written Representation.

**REP2-053-011**

### **Sub-Question**

Other main river interactions 1.5.23 The scheme also proposes the widening of the existing carriageway to three lanes where the route crosses the River Ter. However, no changes are proposed to the existing bridge structure or embankments at this location and therefore we have no concerns.

### **Applicant's Response**

The Applicant acknowledges the Environment Agency's comments that there are no concerns with respect to the crossing of the River Ter.

**REP2-053-012**

### **Sub-Question**

1.6 Biodiversity Net Gain 1.6.1 The Environment Statement Chapter 9 Biodiversity (Ref: APP-076) includes at paragraph 9.13.1 and Table 9.32 a summary of Biodiversity Net Gain for the three habitat types following the application of the Defra 3.0 metric calculator. This shows an on-site net increase of 156.73% for 'Rivers'. However, the Biodiversity Net Gain Report (Ref: APP-138. Doc 6.3 Environmental Statement - Appendix 9.14) includes as a footnote to Table 3 a separation of the 'Rivers and Streams' habitat type into 'Rivers' and 'Ditches'. This states that the project will deliver a net gain of 293.29% for ditches, but only 0.36% for rivers. 1.6.2 Notwithstanding the likely wider impacts on fish and mammals resulting from the loss of riverine habitat causing fragmentation and barriers to movement, as highlighted above, the report therefore does not currently show a clear delivery of Biodiversity Net Gain for rivers. 1.6.3 We wish to see significant enhancements through this scheme. The damaging existing proposed crossings should be



reassessed and improved to deliver a recognisable improvement in the overall situation for rivers as Biodiversity Net Gain is intended to deliver. A full review of the historic problems caused by poorly designed crossings and hard bank revetments originally constructed here (and still in place) would deliver a real opportunity for enhancements on a landscape and multi-catchment scale.

1.6.4 One reason why 'Rivers' should be separated out from ditches and other habitats in Biodiversity Net Gain calculations is due to their unique important linear connected habitats and vulnerability to fragmentation. For example, the Blackwater catchment is approximately 80 km long and the habitat relies on critical connectivity of the headwaters where brown trout spawn to the estuary where the juvenile brown trout will head out to sea. A break in the corridor can have a significant impact on the whole.

### **Applicant's Response**

#### 1.6.1

The footnote associated with Table 3 in Environment Statement Appendix 9.14: Biodiversity Net Gain Report [APP-138] is to provide transparency, detailing Biodiversity Net Gain scores for each habitat type selected in the River and Streams Metric. It also indicates that with the use of mitigation the proposed scheme would not lead to a net loss in watercourses defined in the metric as 'other river and streams' (or as defined in the footnote as 'rivers'). Therefore, preventing the 'trading down' of habitat types within the rivers and streams metric. For example, replacing an 'other river and stream' habitat type with a 'ditch' habitat type and vice versa.

#### 1.6.2

The Biodiversity Net Gain Metric 3.0's purpose is to assess whether a proposed scheme can achieve 10% net gain with the three individual metrics of terrestrial habitats, hedgerows and rivers and streams. A target that is not yet mandatory for Development Consent Order applications. Despite what is noted as a 0.36% net gain in the habitat type for the rivers and streams metric referred to as 'other river and stream', the rivers and streams metric has calculated a net gain of 156.73% and therefore does show a clear delivery of Biodiversity Net Gain.

#### 1.6.3

As noted earlier in sub-part 002, while it is recognised that DMRB LD 118 states 'environmental assessment reports should identify opportunities to address historic impacts from motorway and all-purpose trunk roads on biodiversity resources', it should be noted

this falls under the category of 'enhancement' as opposed to mitigating impacts of the proposed scheme.

Although the scheme has sought reasonable opportunities for enhancements, it is not the objective or responsibility of the proposed scheme to re-construct structurally sound structures, despite any historical environmental issues. Granted, such re-construction may cause some improvement to net gain score for habitat types defined as rivers in the rivers and streams metric, but the purpose of the assessment is to determine how the proposals would impact baseline scores of the rivers and streams metric, and how proposed mitigation of those impacts would ultimately influence the biodiversity net score.

#### 1.6.4

It is accepted that rivers and drainage ditches are unique to one another. However, Metric 3.0 is designed to include both rivers and ditches in the rivers and streams metric, rather than separating them. They are both individual habitat types in the rivers and streams metric and distinctiveness multipliers are assigned as such to account for that. There is no statement in the user guide for Biodiversity Net Gain Metric 3.0 suggesting to separate those habitat types defined as 'other river and stream' and those defined as 'ditches' into separate metrics. Therefore, to do as such would deviate from the methodology for assessing biodiversity units in the rivers and streams metric.

The 0.36% net gain detailed in the footnote of Appendix 9.14: Biodiversity Net Gain Report [APP-138] does show that some gain has been achieved for the 'other river and stream' habitat type. A notable increase in the 'ditches' habitat type of 293.29% is also a major driver in the final, overall score for the Rivers and Streams Metric.

**REP2-053-013**

#### **Sub-Question**

1.7 Water Framework Directive 1.7.1 In respect of freshwater ecology, the Water Environment Regulations (WFD Regulations) Compliance Assessment (Ref: APP-159 Doc 6.3 Environmental Statement - Appendix 14.2) appears to give undue weighting to relatively minor pieces of mitigation (e.g., the addition of a short, realigned meandering section downstream of the A12 on the Roman River) compared to the numerous major negative impacts such as the long, dark confined narrow bridges and culverts. The

new and longer crossings are likely to have a severe detrimental impact on the invertebrates, vegetation, fish, and entire biodiversity elements across the whole river catchment where they act as barriers to movement. 1.7.2 Table 6.2 Operational Impacts acknowledges that the proposed culvert on Rivenhall Brook will most likely prevent the movement of migratory fish species. This is highlighted as a negative impact, but it is concluded that there will be no risk of deterioration to the waterbody “given the localised scale of the impact”. 1.7.3 Any watercourse where barriers to migratory fish and other species are introduced will as a result be severely compromised along its whole length. Such barriers will cause serious long-term deterioration of the waterbodies and failure of the fish elements thus causing a complete deterioration of waterbody quality. This is vitally important, and the current assessment appears to be underestimating the potential impacts. The WFD/WER assessment must represent these impacts fully.

### **Applicant's Response**

The Applicant acknowledges the Environment Agency's comments. The Applicant has assessed all watercourses in line with the requirements of the Environmental Impact Assessment and under the requirements of the Water Environment (WFD) Regulations. The WFD approach has been to scope in all water bodies that fall into receptor categories against activities, which include crossings, culverts, realignments for construction and operation. These have then been assessed in the impact assessment against whether changes are positive, negative, negligible. All watercourses were assessed as receptors against likely significant effects as reported in Environmental Statement Chapter 9: Biodiversity [APP076] and Chapter 14: Road Drainage and the and the Water Environment (RDWE) [APP-081] (specifically Table 14.16) and Appendix 14.3: Hydromorphology Assessment [APP-160]. The impacts of culverts on watercourses were also assessed under the requirements of the Water Environment (Water Framework Directive) England and Wales Regulations 2017 (Appendix 14.2: The WFD Compliance Assessment [APP-159]). The Environmental Statement concluded a slight adverse significance of effect for all culverts, which is not environmentally significant, as detailed in Chapter 14 Table 14.16 [APP-081]. Mitigation measures have been incorporated to ameliorate any potential effects to waterbodies as a result of effects from the proposed culverts. These include facilitating fish passage (RDWE 39 in the REAC [APP-185]) through the embedment of gravels in the base of the culvert; incorporation of bed features (riffles), for example. These are designed to make the environment better for fish passage locally. As stated in Section 6 of the WFD compliance assessment [APP-159] there would be no deterioration to waterbody status and there would be compliance under the WFD. Note, Rivenhall Brook is not a WFD designated water body but is covered under the Blackwater catchment. The impacts to Rivenhall are only discussed in

terms of the effects to the Blackwater via its connection.

**REP2-053-014**

### **Sub-Question**

1.8 Timing of works and methodology 1.8.1 Where in-channel works are planned to take place between June and October, we would highlight that in recent years we have seen dangerously low dissolved oxygen levels in rivers during this period. Stirring up silt in periods of warm, dry weather can cause an ecological pollution incident where a plume of silt travels many miles downstream killing aquatic species and fish. These works will require careful planning for silt entrapment and avoidance of the warmest weather to carry out works safely. In high-risk conditions we recommend that works are postponed until cooler temperatures and damper weather returns in order to avoid triggering a serious environmental incident. It will be necessary to monitor the situation and reduce intrusive channel works to a minimum. We look forward to providing technical advice to the project specifically on this subject. We would highlight that fish are protected from pollutants (including silt disturbance) under the Salmon and Freshwater Fisheries Act 1975. 1.8.2 Where there is any over pumping or lowering of levels with pumps there is a requirement to protect fish and in particular juvenile eels from harm. Therefore, screening (maximum size of 2mm) will be required on all on pumps and extra, wider gauge screening further away to prevent entrapment of fish against the pumps. 1.8.3 The Applicant has stated that migratory fish will be able to travel by a flume or pipe. This will have to be carefully designed to be appropriate as eels cannot swim upstream against fast flows and any design will need to be species-specific.

### **Applicant's Response**

The Applicant acknowledges the Environment Agency's comments and welcomes the offer of technical advice. The programme/timing for works will be developed as the detailed design process continues. As per the response to REP2-053-034, the Applicant will consult the Environment Agency at the earliest practicable opportunity to gain Flood Risk Activity Permits (FRAP) for temporary structures altering water levels in main rivers e.g. temporary headwall, bridge, culvert. As part of this engagement, the Applicant and Environment Agency will agree the required mitigation to control the environmental impact of the works including the

timing of works, use of screening and size of flumes (as committed in BI42 in the Register of Environmental Actions and Commitments, within the first iteration Environmental Management Plan [APP-185]).

Works would be specifically timed to avoid sensitive migratory and spawning periods of salmonid and coarse fish. The Applicant welcomes working with the Environment Agency to identify suitable in-channel working periods that balances the requirement to avoid low dissolved oxygen levels and the requirements under Salmon and Freshwater Fisheries Act 1975 to avoid harm to spawning fish.

**REP2-053-015**

### **Sub-Question**

1.9 Invasive Species and Biosecurity 1.9.1 The scheme carries significant biosecurity risks as it crosses and impacts on so many rivers and water courses. 1.9.2 Measures are proposed, and it will be essential to ensure that working between river catchments does not spread problem species and agents such as crayfish plague. There will need to be very rigorous adherence to the Check Clean Dry Protocol, for example, before bringing any plant in, moving between rivers and before any plant leaves for use elsewhere. 1.9.3 There should be an integrated approach to identify, record, and resolve any invasive species concerns around the working sites and robust biosecurity measures to prevent major long-term problems with pest species and diseases.

### **Applicant's Response**

The Applicant has prepared an Invasive Species Management Plan (Appendix H of the First Iteration Environment Management Plan [APP-192]) which outlines the measures proposed to avoid the spread of Invasive Species and the approach to biosecurity (as committed to in BI10 in the Register of Environmental Actions and Commitments [APP-185]). The measures proposed align to the Environment Agency's 'Clean, Check, Dry' – and recognise the importance of biosecurity across the proposed scheme, the relevant legislation, results of non-native species surveys undertaken to date, and the control measures proposed (identification, prevention, containment and control).

REP2-053-016

**Sub-Question**

2 Flood risk 2.1 Flood Risk Assessment 2.1.2 Our Relevant Representation (RR-011) confirmed that we are broadly satisfied with the Flood Risk Assessment (FRA) (6.3 Environmental Statement – Appendix 14.5. APP-163), and associated sections concerning fluvial flood risk. This includes Annex L – Hydraulic Modelling Reports (APP-172); which we have reviewed and are satisfied that it is fit for purpose. 2.1.3 We highlighted that the proposed widening of the bridge over the River Brain could impact on the flood defence embankment located to the west. The Applicant has further surveyed the site and confirmed that there will be approximately 16m between the embankment and the extended structure (wing wall). On that basis, we can confirm that we are satisfied that the structure is capable of being extended without impacting the embankment and look forward to reviewing the detailed proposals as part of the required flood risk activity permit. 2.1.4 We also highlighted that for a number of the proposed main river crossings, there appeared to be a loss of flood storage in the 5% (1 in 20) AEP (Annual equivalent probability) event. The Applicant has explained that the volume lost has been redistributed across the wider floodplain and that there is no increased flood risk. We are satisfied on this point. 2.1.5 The FRA showed an increase in flood depths as a result of the culverted crossings of Rivenhall Brook and the eastern crossing of Domsey Brook. In our Relevant Representation we stated that it is not always clear whether the affected land will remain within the ownership of National Highways. Where that would not be the case, it should be ensured that landowners are accepting of any increased risk, or compensatory storage should be considered. The Applicant has confirmed in the Response to Relevant Representations that for the eastern crossing of Domsey Brook the 0.07m increase in flood depths on land between the old and new A12 will be remaining in National Highways ownership (REP1-002, RR-011-016). For the 0.05m increased flood depths within the river channel downstream of the Rivenhall Brook crossing, National Highways have confirmed that the river channel is within third party ownership at this location and that they are in the process of engaging with the landowner to obtain permission for the increase in flood depths as a result of the scheme (REP1-002, RR-011-009). 2.1.6 We also highlighted that in the vicinity of Ordinary watercourse 7, the A12 is proposed to be only 0.3m above the 1% AEP event with 40% allowance for climate change flood levels, and the A12 northern slip road is proposed to be 0.22m above the same flood level. This small freeboard may mean that the roads could be at risk in an extreme 0.1% (1 in 1000) AEP flood, particularly with climate change

applied. The FRA states that it is not possible to raise the road further due to the local topography. For all other A12 crossings, the road level has a significant freeboard above the 1% with climate change flood level and is therefore unlikely to be affected by the extreme 0.1% climate change event.

2.1.7 The National Policy Statement National Networks(NPSNN) states that it should be considered whether there is a need for a scheme to remain operational during a worst-case flood event over the development's lifetime. The FRA has not clearly stated if this has been deemed necessary for this scheme. It should be determined, in consultation with local authority Emergency Planners, whether the (entire) road is required to remain operational in a worst-case flood event.

2.1.8 The Applicant has confirmed that further hydraulic modelling is being carried out at the affected location. Although the 'worst-case flood over the development's lifetime' is not defined, we consider that it would constitute the extreme 0.1% flood event with the 'central' climate change allowance. This flood event should be modelled if it is deemed that the scheme should remain operational during a worst-case flood event over its lifetime. We also consider that it would be beneficial to additionally model the 'upper end' climate change allowance on the 0.1% flood event as a sensitivity test to illustrate the impacts on the proposed scheme. We are engaging with the Applicant on this issue.

2.1.9 We highlighted in our Relevant Representation that the FRA shows that some works associated with the proposed Haul roads, borrow pits and crossings/works affecting Ordinary watercourses will lead to minor increases in flood depths at some specific locations. Further detail on this is provided below:

### **Applicant's Response**

#### 2.1.5

While preparing information to allow for consultation with the landowner potentially impacted by the increase in water levels, the Applicant has identified that the small areas of water level increase may be caused by local model instabilities, rather than a 'real' impact of the proposed scheme. Further investigation to confirm if this is the case are being undertaken. Further information will be provided as part of future stakeholder engagement.

#### 2.1.7

The Applicant is engaging with emergency planners to determine if the road needs to remain operational in a worst-case flood, should Hydraulic modelling of minor watercourse 7 identify that the road would not be operational in such an event.

**2.1.8**

The Applicant acknowledges the Environment Agency confirming the event that would be considered the 'worst-case flood over the development's lifetime'. The Applicant will undertake hydraulic modelling based on this event, as well as the sensitivity test suggested, and share the results as part of future engagement with the Environment Agency.

**REP2-053-017****Sub-Question**

2.2 Ordinary watercourse crossings 2.2.1 Chapter 3 of the FRA considers Ordinary watercourse crossings. Essex County Council as the Lead Local Flood Authority (LLFA) are required to consent works affecting the flow of an ordinary watercourse, including the use of culverts. Therefore, our comments on these crossings are advisory. The use of a culvert over a bridge should be justified, and it should be ensured that culverts where used are appropriately sized. Culverts should usually be the largest size that the watercourse can accommodate, and our minimum culvert size is 600mm; with the current proposals it is not always clear that this approach has been applied.

**Applicant's Response**

The use of culverts has been discussed in responses to REP2-053-915-002 and REP2-053-007 to REP2-053-011 of this Written Response.

Minimum culvert sizes have been selected based on Design Manual for Roads and Bridges (DMRB) requirements. This gives a minimum culvert diameter of 450mm, although larger culverts have been used in the majority of locations. A full list of culvert sizes can be found in Annex N of the Flood Risk Assessment [APP-162]. Culverts below 600mm in diameter have only been used where as part of a series of culverts with existing culverts of similar size or where there are constraints to providing larger culverts. Constraints include lack of available clearance to road level or where larger sizes would risk increase in flood risk downstream.



REP2-053-018

### Sub-Question

Ordinary Watercourse 7 Crossing 2.2.2 The proposed works include a new junction, slip roads, and widening of the existing highway embankment. This will require an extension of the existing 50m long, 375mm diameter culvert by 30m under the widened embankments, and the construction of a new 450mm diameter culvert under the northern slip road. An existing farm ditch will be redirected to the north of the A12 and towards the inlet of the new culvert, and the redundant section of farm ditch will be infilled.

2.2.3 The proposed works will increase the flood depths upstream of the northern slip road by up to 0.42m in the 1% (1 in 100) AEP including 40% for climate change. The flood extents will remain similar to the existing extents, and the entire area of increased flood depths will remain within National Highways land, and therefore act as an informal flood storage area. Consequently, while the preference is for compensatory flood storage to mitigate increases in flood depths, this increase in flood depths can be considered acceptable, as the land will remain within National Highways ownership.

2.2.4 The FRA states that in the 1% and 1% with climate change events the pass-forward flow rates in Ordinary Watercourse 7 have been reduced slightly so provide some betterment. However, the pass-forward flows will increase by up to 0.01m<sup>3</sup>/s in the 5% (1 in 20) AEP event, which can likely be considered to be minimal in comparison to the total flow rate of Ordinary Watercourse 7 of 0.27m<sup>3</sup>/s and the flow rates of the downstream receiving watercourse River Blackwater of 24.89m<sup>3</sup>/s. The FRA states that this will result in increases in flood levels downstream, but that they remain in channel. The amount of increase in flood level is not detailed; information on both the increased depths and locations of the increased depths should be provided. Landowner agreement should be obtained for the increases as even though they are within channel they could affect local outfalls etc. Alternatively, mitigation should be provided to remove the increases.

### Applicant's Response

The maximum modelled increase in water level outside of the permanent Order Limits is approximately 50mm, although this increase is believed to be due to localised model instability rather than a real impact of the proposed scheme. As detail design develops further details of the increases in water level downstream will be provided to the Environment Agency to justify this

assessment as part on ongoing consultation.

Where increases in water level are not shown to be as a result of model instability, the Applicant is engaging with the landowner concerned. If it is found that the increase in water level would result in an increase in flood risk (due for example to impacting an outfall), then mitigation would be provided within the permanent Order Limits.

**REP2-053-019**

### **Sub-Question**

Ordinary Watercourse 21 Crossing 2.2.5 The proposed scheme is to widen the existing A12 by 2m to the north and 11m to the south, along with realigning Highfields Lane. There are three ordinary watercourses that converge to the south of the existing A12 and pass north under the A12 through culverts. The A12 was found to be at risk of flooding, and the proposed works were found to increase flood risk, including to properties, so mitigation has been included. 2.2.6 The mitigation proposal is to create a bund across the floodplain to the south of the A12 to store flows from the western tributary (Ordinary Watercourse 21) and prevent it overtopping the A12. This will then partly outfall at a restricted rate under the A12 into the River Blackwater to the north, as presently, and also outfall into a new culvert and open ditch network which will discharge to the west, into the River Blackwater further downstream than presently. 2.2.7 The flows from the eastern and middle tributaries are going to be directed into the new open channel and culverted watercourse which discharges to the west, into the River Blackwater further downstream than presently. 2.2.8 The modelling shows that the proposed mitigation prevents the A12 from flooding in all events up to the 1% with 40% climate change. The works would result in a reduction in flood levels downstream of the A12 crossing by up to 0.05m during the 1% AEP with 40% climate change and one residential property that was at risk of flooding in the baseline modelling is no longer at risk during the flood events modelled. 2.2.9 The works will not alter the volumes or rates of water entering the River Blackwater, but the water will enter it earlier, and further downstream than before. However, this is unlikely to pose a problem as the critical storm duration of Ordinary Watercourse 21 is much shorter than that of the River Blackwater, so the peaks are unlikely to coincide and the peak flows from the ordinary watercourse are much smaller than that of the Blackwater, so proportionally will not have as much of an impact. 2.2.10 The proposed works will result in an increase in flood depths of over 0.10m on an area of new flood extents adjacent to the realigned Ordinary Watercourse 21 to the west of the site near where it outfalls into the River Blackwater. The FRA states that this land is

within the floodplain of the River Blackwater and that the River Blackwater model shows it to be inundated in all modelled flood events. While the land may already be at risk of flooding from the River Blackwater, as a result of the scheme it would also be at risk of flooding from Ordinary Watercourse 21, and potentially sooner than the River Blackwater would flood, or in different rainfall/flood events. The land is within the Order Limits, but it is not clear whether it will remain National Highways land. If it will not, then landowner permission will need to be sought for the increased flood risk, or flood compensation provided to offset and mitigate the increased flood risk. If this is not achieved then it should be determined whether the potential increase in flood risk to this land is acceptable, and whether the overall decrease in flood risk to the road and property outweighs this increase. The actual flood depths in this area have not been detailed, just the plan showing flood depth increase of over 100mm (0.10m). The actual flood depth increases should be provided.

### **Applicant's Response**

The Applicant intends to update the Flood Risk Assessment (APP-162) to provide further information relating to the flood depth increases in this area and to demonstrate that any increases remain within Permanent Order Limits. This will be submitted to the Examination in due course.

**REP2-053-020**

### **Sub-Question**

Ordinary Watercourse 21a Works 2.2.11 The proposed scheme involves widening the existing A12 and a new junction and slip roads. This includes the replacement of the existing culvert with three new connected culverts, with a total length of 302m, and the regrading of the existing channel to 8m width for approximately 70m upstream and downstream. Without any further mitigation the modelling showed that this would cause the A12 to flood from the southern slip road. Mitigation has been proposed, including an excavated channel 10m wide and 2m deep upstream of the southern slip road to capture and divert the flows into the culvert, a 1.5m weir located in the diverted eastern tributary watercourse, upstream of the confluence with the western tributary to attenuate flows, and a small drain on the left floodplain of the western tributary to divert flood water back into the channel, and a 500mm bund

to prevent floodwater ponding against the new A12 embankment. 2.2.12 The modelling shows that this would ensure that the scheme does not flood in all flood events, and that the flood water remains in the eastern channel and is directed back into the western channel by the bund and new drain. There is an understandable increase in flood depths in the excavated flood mitigation channel and upstream of the proposed headwall, but a decrease in water levels in the downstream channel, and negligible impact everywhere else. 2.2.13 The LLFA should determine whether the proposed works are acceptable, as a permit would be required for the diversion of the ordinary watercourses and the installation of a weir. If there is a 1.5m high weir in the channel, this is likely to have a large impact in normal flows and is likely to raise normal water levels immediately upstream by 1.5m. It should be detailed how far upstream the increase in in-channel water level will be felt, and whether it will affect the ordinary watercourse outside of National Highway land. If so then landowner permission for this increase in water level will need to be obtained, as it can affect drainage outfalls. 2.2.14 Again, a long culvert has been proposed without exploring the option of a bridge and without justification as to why a bridge is not able to be used. This should be detailed for consideration by the LLFA.

### **Applicant's Response**

No significant adverse impacts to the ordinary watercourse have been identified as a result of the watercourse diversion or proposed weir.

The increase in water levels upstream of the proposed weir shown in Plates 3.8 and 3.9 of the Flood Risk Assessment [APP-162] extends approximately 200m upstream of the weir in the 1% (1 in 100) AEP plus climate change event and remains within the permanent Order Limits during all modelled flood events.

The use of culverts has been discussed in responses to REP2-053-915-002 and REP2-053-007 to REP2-053-011 of this Written Response.

The Applicant will continue to consult with the LLFA on all aspects of works to Ordinary Watercourses.

**REP2-053-021**

### **Sub-Question**

Ordinary Watercourse 23 Crossing 2.2.15 The proposed scheme is for a new offline crossing of Ordinary Watercourse 23 for the new realigned A12 along with a new junction and associated slip roads. The crossing includes new culverts and a realigned watercourse. The works include mitigation measures to prevent an increase in flood risk west of Prested Hall, which includes a new ditch system instead of a culvert west of New Lane, an excavated flood storage area upstream of the new A12, with a culvert outlet to discharge water into the A12 culvert, and a flood bund alongside London Road. 2.2.16 The flood storage area will store a maximum of 1612m<sup>3</sup> in the 1% with 40% climate change flood event and take approximately 35 hours to drain. The depth of flooding will be over 500mm (0.5m). National Highways will acquire the land for the purpose of the scheme, and it will remain as unused land. The remainder of the land experiences negligible, less than 0.01m, increase in flood risk. The proposed carriageways are free from flooding in all modelled events. 2.2.17 Again, a long culvert has been used without exploring the option of a bridge and without justification as to why a bridge is not able to be used. 2.2.18 The size of the proposed culverts has not been detailed. It is not clear whether they are the largest possible diameter that can fit in the watercourse, with a minimum diameter of 600mm as required to reduce the risk of blockage and maintain existing flows. The works will need to be agreed by the LLFA.

### Applicant's Response

2.2.17: The use of culverts has been discussed in responses to REP2-053-002 and REP2-053-007 to REP2-053-011 of this Written Response.

2.2.18: The culverts proposed for Ordinary Watercourse 23 are detailed in Annex L of the Flood Risk Assessment - Hydraulic Modelling Reports [APP-172]. These include an extension of the existing 450mm diameter culvert under the existing A12, a 600mm diameter culvert under the proposed A12 and a 450mm diameter culvert under the proposed access road. The culvert sizes for the new culverts have been selected as part of the designed flood risk mitigation for this watercourse. Provision of larger diameter culverts would risk increased flood depths downstream.

**REP2-053-022**

### Sub-Question

Ordinary Watercourse 26 Crossing 2.2.19 The proposed scheme will involve a new offline crossing of Ordinary Watercourse 26, which will include three new circular culverts, with diameter of 450mm and lengths of 82m, 16m and 16m respectively. The culverts will discharge into a new 2m wide ditch in the central island of the roundabout, and then discharge via an existing culvert under the existing A12. 2.2.20 The minimum culvert size that we look to see wherever possible is 600mm, and ideally as large as the upstream and downstream ditches. The proposed 450mm culvert is a large reduction on the size of the proposed 2m ditch and is likely to have an increased blockage risk. Justification should be provided as to why a larger culvert diameter is not possible, and the culvert diameter should be increased to match the size of the upstream ditch if feasible. The LLFA will be responsible for permitting the culvert and agreeing these points. 2.2.21 To prevent increased risk of flooding including to the A12, mitigation measures have been proposed, which includes an excavated floodplain compensation area 30m upstream of the culvert with area of 2200m<sup>2</sup> and depth of 2.5m, and excavated channels to divert flow from the eastern and western tributaries into the flood storage area. 2.2.22 The modelling shows that the storage area would contain 1612m<sup>3</sup> in the 1% with 40% climate change event and would fully drain in approximately 50 hours. The usual half drain requirement, to ensure that such features can accept a further flood event, is 24 hours, so it appears that this meets that requirement. 2.2.23 The modelling shows that the mitigation measures ensure that the proposed scheme is no longer at risk of flooding in all modelled results. There would be ponding up to 200mm deep against the proposed A12 embankment at the inlet of the culvert, but the increased flood depths would be constrained to within the watercourse channel. This is within the order limits but it's not clear if it would remain National Highways land, or if landowner approval is required. 2.2.24 Elsewhere the scheme results in reduced flood risk compared to existing; eliminating the existing flood risk from Hall Chase in all modelled flood events; and reducing the potential flood depths by up to 0.05m for the properties opposite the entrance to The Crescent.

### **Applicant's Response**

The existing A12 culvert servicing this catchment has a diameter of 450mm. Provision of larger diameter culverts on this watercourse is constrained by the vertical alignment of the proposed scheme.

The area of increased flood depths is within the Order Limits and would remain within land owned by National Highways.

REP2-053-023

**Sub-Question**

Inworth Road 2.2.25 The works involve widening the road by between 0.25m and 1.5m. The Flood Map for Surface Water shows that the road is already at risk of flooding by up to 0.9m deep. The FRA states that flood storage areas have been designed to contain the surface water flows towards the road, and that the mitigation would protect the road from flooding in the 1% AEP including climate change. However, no plans of the location of the storage areas have been included in the FRA, or details of the volumes required, or modelling to demonstrate that it will function correctly. This should be submitted and the LLFA will need to determine whether the proposed works to mitigate surface water flooding are satisfactory.

**Applicant's Response**

Hydraulic modelling of the flood storage areas has been undertaken and the results of this will be submitted to the LLFA as part of ongoing liaison between them and the Applicant. The Applicant will also share this information with the Environment Agency.

REP2-053-024

**Sub-Question**

Proposed Culverts for other ordinary watercourses – Paragraph 3.6.11 and Annex N of the FRA 2.2.26 As highlighted, the culverting of ordinary watercourses will require consent from the Lead Local Flood Authority – Essex County Council. The LLFA should determine whether the proposed approach and culvert sizes are acceptable. 2.2.27 It is stated that for culverts longer than 12m a minimum of 1.2m diameter is required, which is encouraging as the larger culvert reduces the risk of blockage and better replicates the existing open ditch, so reducing flood risk impacts upstream. 2.2.28 However, on many ordinary watercourse crossings detailed previously smaller culverts were used for long stretches, which does not seem consistent. Additionally, the largest culvert possible that can fit in the watercourse should be used for new culverts in what are currently open ditches, so

culverts larger than 1.2m diameter should be used if that can fit in the watercourse. 2.2.29 It is good to see that the culvert size will be designed to convey the 1% with 40% climate change event. Although we agree that the extension of existing culverts could continue to use the existing culvert diameter, the opportunity for betterment should be taken wherever possible, and existing small culverts increased in size where feasible. 2.2.30 Culvert CL-02 for Ordinary Watercourse 2 is proposed to be an extension of the existing twin pipe 0.6m diameter pipes; however, we look to avoid twin pipes due to the blockage risk of the cross wall, so it would be preferable if they could be replaced with a box culvert. 2.2.31 Culvert CL-03A is a 0.3m diameter pipe that is proposed to be extended from 76m to 85m long. A 0.3m diameter culvert is very small and at high risk of blockage so the culvert should be increased to a 0.6m diameter culvert, if possible, to reduce the risk of blockage. 2.2.32 Culvert CI-07 for Ordinary Watercourse 7 is the extension by 28m to a total length of 80m of a 0.375m diameter culvert. The culvert has a very small diameter, and the assessment in the FRA found it to be inadequately sized, but the use of a larger culvert is not proposed. The FRA states that the increases in flood risk upstream will not affect the A12, and they will either be within the order limits or landowner permission will be obtained for any increases. However, the first option should be to provide compensatory flood storage if possible. Also, instead of extending the inadequately sized culvert, it may be beneficial to agree any downstream increased flood risk with downstream landowners if the culvert size was increased instead of agreeing upstream flood increases with the existing sized culvert, as this way the watercourse would have a larger culvert at less risk of blockage, with betterment achieved. Modelling may be required to demonstrate where the increased flood risk would be felt if the culvert size was increased. 2.2.33 For Ordinary Watercourse 23 the existing 0.225m culvert is proposed to be retained even though the existing pipe capacity is found to be inadequate. The FRA states that providing a larger diameter culvert would increase the flood risk downstream, so mitigation in the form of an oversized ditch is provided. We question why the opportunity to replace substandard culverts with larger culverts, with less risk of blockage, is not taken, to try to replicate the natural watercourse and flood conditions. As detailed above, the downstream flood risk could be calculated or modelled and compensation provided if required, but with a better sized culvert with less blockage risk installed, rather than providing compensation for maintaining the inadequately sized culvert. 2.2.34 Culvert CL-IWR-9 for Ordinary Watercourse 34b is 0.3m in diameter and will be extended by 10m to 68m. The FRA states that the existing hydraulic capacity is assumed to be adequate. However, we would expect the largest culvert possible, to replicate the size of the ditch, wherever possible, and it is unlikely that a very small 0.3m culvert could provide sufficient hydraulic capacity. This should be used as an opportunity to increase the culvert size, to at least 0.6m diameter, which will reduce the blockage risk. We note that there are houses at risk of flooding upstream of the culvert. 2.2.35 CL-IWR-4 for Ordinary Watercourse 34c is a 0.9m diameter, 243m long culvert which is proposed to



be retained, but which currently receives the flows for a significantly large natural catchment as well as highway drainage conveyance. The FRA states that “The flows from the natural catchment would need to be restricted at upstream end of this culvert, and proposed mitigation measures would be required in the form of flood storage. The details of proposed flood storage (attenuation volume, size, location, etc.) would be confirmed through hydraulic modelling at subsequent design stage”. We question whether this detail should instead be provided now. 2.2.36 N/1/2 states that new culverts on Ordinary Watercourses and drainage culverts with length over 12m will be 1.2m diameter as a minimum except where the new culvert is proposed in a line of existing smaller size culverts, and then a 450mm culvert would be proposed as a minimum with appropriate mitigation measures. However existing small inadequately sized culverts should not be used to justify a small new culvert upstream or downstream. The LLFA will need to determine if this is acceptable when consent is obtained.

### **Applicant's Response**

The culvert sizes selected for the proposed scheme have been designed in accordance with the Design Manual for Roads and Bridges (DMRB), in particular CD529 – Design of outfall and culvert details. CD529 requires the use of guidance contained within CIRIA C786 in several aspects of culvert design. Based on the guidance in these documents, culverts have generally been sized based on predicted peak flows in a 1% (1 in 100) AEP event, with appropriate freeboard allowance included and are predominantly 1.2m in diameter or larger. Potential constraints that may lead to smaller diameter culverts being used, or reduced freeboard, include provision of the required clearance to road level, avoiding clashes with other services, or the need to restrict flows as part of proposed flood mitigation works. Culvert extensions have been sized to match the existing culvert. Upsizing or replacement of existing culverts to provide betterment would risk increasing flood risk downstream, increase the costs of the proposed scheme and is considered beyond the requirements of the National Policy Statement for National Networks (2014). As such the works to Culvert CL02, CL-03A and CL-07 are proposed to be extensions of the existing culverts only. The provision of compensatory flood storage upstream of CL-07 was considered during the design process. The storage would need to be provided in the same areas that would experience an increase in flood risk as a result of the proposed scheme. While this might reduce the extent of increase in flooding slightly, as these areas are subject to permanent acquisition by National Highways within the Order Limits, this reduction was not considered sufficient to justify the additional cost and environmental impact of undertaking additional earthworks.

The Applicant notes the Environment Agency's detailed comments on the design of the drainage proposals raised in the Written

Representation. These detailed points on the drainage design are currently the subject of discussions between the Applicant and the Environment Agency and the Applicant will update the Examination on the outcome of those discussions in due course.

**REP2-053-025**

### **Sub-Question**

Blockage Risk of Culverts – Paragraph 3.6.15 and Annex P of the FRA 2.2.37 The FRA states “An initial assessment of the blockage risk for watercourse crossings has been undertaken in accordance with CIRIA (2019) C786 and is presented in Annex P. Where further assessment identifies the need for a trash or security screen to reduce risks, these would be included at the detailed design stage.” Annex P provides details of which culverts, whether they are being retained or extended, have been assessed as having a medium risk for which the next steps are to “do something (which may include detailed assessment)”. 2.2.38 Ideally culverts should be large enough for debris to pass through without requiring a trash screen, as the use of trash screens can cause debris to become trapped on them and can potentially increase flood risk upstream compared to an open culvert. They also require regular maintenance and cleaning. A permit will be required from the LLFA for the installation of trash screens on ordinary watercourses.

### **Applicant’s Response**

The Applicant notes the comments raised. Where trash screens are identified as being required on culverts, an appropriate maintenance regime will be put in place by National Highways to reduce blockage risk. This will be included in the next iteration of the Register of Environmental Actions and Commitments (REAC – APP-185).

**REP2-053-026**

### **Sub-Question**

2.3 Reservoir flooding 2.3.1 Section 6.3 of the FRA considers reservoir flooding. Part of the scheme lies in an area at risk of reservoir flooding. Reservoir flooding is extremely unlikely to happen providing the reservoir is appropriately managed and maintained. All large, raised reservoirs designated as 'high-risk' and those where the risk is still to be determined must be inspected and supervised by reservoir panel engineers. The Environment Agency are the enforcement authority for the Reservoirs Act 1975 and under this Act it is a requirement that reservoirs are inspected regularly, and essential safety work is carried out. All four reservoirs in question are already designated as high-risk reservoirs so will already need to have on-site and off-site plans and a reservoir panel engineer to manage the reservoir and the risk of flooding. However, the failure of a reservoir has the potential to cause catastrophic damage due to the sudden release of large volumes of water with little or no warning. The FRA states that it could potentially alter reservoir flood flow paths in the event of a breach of the reservoir banks. The local planning authority, who are responsible for the reservoir offsite plans, will need to evaluate the potential damage to buildings or loss of life in the event of dam failure, compared to other risks, when considering development downstream of a reservoir. They should request further details on the potential depths of flooding, and diversion of flows if required. 2.3.2 The Planning Practice Guidance states that Local planning authorities are advised to consult with their emergency planning officers as early as possible regarding any planning applications which have implications for emergency planning. Where issues affecting emergency services are identified it may be relevant to contact the local resilience forum which prepare for local incidents and catastrophic emergencies. Or in some cases, it may be appropriate for the emergency services to be consulted on specific emergency planning issues related to new developments. It is also advised to consult with the owners/operators of raised reservoirs, to establish constraints upon safe development.

### **Applicant's Response**

The Applicant notes the information provided. As referenced in Section 6.3 of the Flood Risk Assessment [APP-162], the risk of Reservoir Flooding occurring is considered very low and therefore no mitigation measures have been proposed in relation to this risk.

**REP2-053-027**

### Sub-Question

2.4 Haul Roads 2.4.1 Section 7.3 of the FRA concerns construction elements, including haul roads, borrow pits, dewatering, and the construction methodology at watercourse crossings. 2.4.2 We agree with the FRA that the majority of the proposed haul roads lie in Flood Zone 1 and that the very small areas within the modelled flood zones extents would be likely to have minimal floodplain loss. Any impacts are likely to be immediately upstream and in the order limits, apart from the two locations detailed further in the FRA (see below). Haul roads that are proposed to be raised above the existing ground level and are within Flood Zones 2 and 3 will need a Flood Risk Activity Permit, so the detailed impacts could be assessed through this route. 2.4.3 There are some proposed haul roads which lie within Flood Map for Surface Water outlines, and therefore it should be ensured that either they are not raised in these locations, or that further modelling/calculations are undertaken to ensure no increase in surface water flood risk. The LLFA may comment further on this aspect.

### Applicant's Response

The Applicant agrees that the Flood Risk Activity Permits would be the appropriate place for assessment of any further impacts due to Haul Roads where required. However, the Applicant believes that the very small areas within modelled flood extents mean significant further assessment is unlikely to be required.

Where haul roads pass through Flood Map for Surface Water outlines, it is intended that they will remain at grade where practicable, to avoid interrupting surface water flow routes. Where this is not possible, temporary mitigation measures would be provided to prevent an increase in flood risk as per commitment RDWE 6 in the Register of Environmental Actions and Commitments [APP-185].

**REP2-053-028**

### Sub-Question

Haul Road East Of Witham 2.4.4 The inclusion of the raised haul road to the east of Witham will temporarily remove 810m<sup>3</sup> of floodwater from the floodplain. The volume of Functional Floodplain (Flood Zone 3b) that will be removed by the temporary haul road has not been detailed and should be assessed. In a 1% AEP flood event this reduction in flood storage volume will result in an area of lower ground on the edge of the floodplain becoming at risk of flooding, which wasn't previously, and flood to a depth of 0.37m. The FRA states that it appears that this area is an existing hollow, potentially a pond or ditch and is within an area of woodland/wetland. The haul road will be in place for a maximum of 18 months. The area is outside of the order limits and not in National Highways ownership. Because there are no vulnerable receptors no mitigation has been proposed in the FRA for the increase in flood risk. Temporary mitigation such as compensatory storage should be provided, or landowner permission obtained for the temporary increase in flood risk. If this is not achieved, then it should be determined whether the temporary increase in flood risk to an area of wet woodland is acceptable.

#### **Applicant's Response**

The Applicant is preparing information on the increase in flood risk to inform liaison with the landowner on this increase in flood depth. The risk of a 1% event occurring during the 18 month period that the haul road would be in place is considered low and therefore providing mitigation (which it is anticipated would involve temporary compensatory flood storage) is considered disproportionate in this case given the receptor is undeveloped and already within floodplain.

**REP2-053-029**

#### **Sub-Question**

Haul road and piling rig south of Ashman's Bridge (within River Blackwater floodplain and channel) 2.4.5 The temporary haul road will result in an increase of flood levels of up to 0.04m depth between the haul road and the A12 in the 1% AEP event. The FRA states that this is in the National Highways land ownership, so is acceptable. However, the plan shows that there is also a large area which would have between 0.01 and 0.05m increase in flood depths to the north of the A12, which is not in the order limits, and is not mentioned in the FRA. Either temporary mitigation should be put in place, landowner agreement should be obtained for this

area of temporary increased flood risk, or it should be determined whether the increase is considered acceptable.

### **Applicant's Response**

The plan shown in plate 7.8 of the Flood Risk Assessment [APP-162] has been included in error and shows results for a previous version of the design. The modelling of the latest design indicates that the increase in flood depths of above 0.01m is contained within Order Limits.

The Applicant intends to update the FRA [App-162] to reflect these and other changes as a result of on-going engagement with the relevant stakeholders at the end of the Examination so that they are all reflected in a final document."

**REP2-053-030**

### **Sub-Question**

2.5 Borrow Pits Borrow pits E and F 2.5.1 Borrow Pit F extends into a surface water flow path so temporary ditches around the borrow pit are proposed to capture and convey flows around the borrow pit. It's not clear how the required dimensions of the ditches will be determined; this should be detailed. Borrow pit E crosses Ordinary Watercourse 7, so the FRA states that temporary ditches will go around the perimeter of the borrow pit to capture and convey flows around the borrow pit. This will equate to the realignment of Ordinary Watercourse 7, as it will be removed by the digging of the borrow pit. A permit will be required from the LLFA.

### **Applicant's Response**

The temporary ditches referenced in paragraph 7.3.21 of the Flood Risk Assessment [APP-162] are required as a result of Borrow Pit E being within the floodplain of Ordinary Watercourse 7, not as a result of the borrow pit crossing the watercourse which is not the case. The ditches would act as pre-earthworks drainage to prevent significant flows into the borrow pit.

As stated in commitment RDWE 16 within the Register of Environmental Actions and Commitments [APP-185], temporary drainage

sizing requirements will be identified as part of the Water Management Plan [APP-198] prior to commencement of works.

**REP2-053-031**

**Sub-Question**

Borrow Pit I 2.5.2 Borrow pit I lies in the fluvial floodplain of Rivenhall Brook, so the borrow pit could be at risk of flooding and may require dewatering after. There would also be a risk of flooding to the people and plant within the borrow pit. A Flood Management Plan should therefore be developed to reduce the risk to people and equipment and enable them to be evacuated from the area at risk in advance of any flooding. Alternatively, relocating the borrow pit to an area that is not at risk of flooding could be considered.

**Applicant's Response**

Avoidance of areas at risk of flooding was one of the criteria used in selection of Borrow Pit sites. Where sites remain in at risk areas, such as Borrow Pit I, this is because no reasonable alternatives have been identified.

As per commitment RDWE 13 of the Register of Environmental Actions and Commitments [APP-185], a suitable flood risk action plan will be developed for all works within areas at risk of flooding.

**REP2-053-032**

**Sub-Question**

Borrow Pit J 2.5.3 Four tributaries of Ordinary Watercourses 21 and 21a will need to be temporarily realigned around the perimeter of the borrow pit. It is stated that the temporary realignment would be suitably sized to safely convey flows. Consent from the LLFA will be required for the realignment of the ordinary watercourses. To prevent the temporary realignment of the watercourses from increasing flood risk to the A12, the permanent mitigation works for Ordinary Watercourses 21 and 21a would be completed prior to

the temporary realignment.

### Applicant's Response

The Applicant is planning to seek consent from the LLFA for these works.

**REP2-053-033**

### Sub-Question

7.3.29-7.3.35 - Dewatering 2.5.4 There are two borrow pits where the rate of dewatering flows into the receiving watercourse could cause flood risk problems. For Borrow Pit K the estimated dewatering flow of 0.36m<sup>3</sup>/s is 16% of the 5% AEP flow (2.25m<sup>3</sup>/s) of the receiving watercourse Ordinary Watercourse 21. To mitigate this, the permanent mitigation works for Ordinary Watercourse 21 including the creation of a flood storage area, will be installed before the dewatering takes place. 2.5.5 For cutting W5, the estimated dewatering flow rate of 0.12m<sup>3</sup>/s is 37% of the 1% AEP flows of the receiving watercourse Ordinary Watercourse 10. The 5% flow of the receiving watercourse is unknown, but the dewatering flow is likely to be a much higher proportion of the watercourse's 5% flow. The FRA states that as the watercourse only flows through open agricultural and greenfield land with no receptors vulnerable to flooding then this would result in a negligible increase in flood risk. However, what is not clear is whether the proposed flow rate, along with the usual baseline flow rate in Ordinary Watercourse 10 would result in out of bank flows, if so, it will cause flooding on the land for however long the dewatering is in place. This is unlikely to be considered acceptable if it is on third party land and without landowner permission being obtained. If the flows are likely to remain in channel, then this might be considered to be acceptable, but landowner permission would still be required for the increase in in channel flows, particularly in regard to the impact on existing outfalls. The FRA and section N.11.21 in the Environmental Management Plan does say that the dewatering discharge could be temporarily paused during flood events to prevent any increased flood risk, if required. It would be beneficial for this to happen, and especially important for Watercourse 10, so should be stipulated in the Environmental Management Plan. Although, regardless, the flood risk during normal flows should be determined, shown on plans, and its acceptability determined.



### Applicant's Response

The requirement for dewatering discharge to be paused during flood events will be in the second iteration of the Environmental Management Plan (EMP). This will be added to the first iteration EMP when it is updated during the examination.

The Applicant will investigate the flood risk during normal flows on Watercourse 10 and include the findings in future consultation with the Environment Agency.

**REP2-053-034**

### Sub-Question

Construction methodology at watercourse crossings 2.6.1 Proposals for the temporary over-pumping of watercourses to enable construction is described in section 7.3 of the FRA and the REAC (APP-185) reference RDWE 14 & 15. It is stated that over-pumping pipes would be sized for the appropriate flows, and the structures will be designed to be overtopped in the 5% (1 in 20) AEP event to "have minimal impact on channel capacity during a more extreme flood event". However, for main rivers the channel capacity is usually considered to be the 50% (1 in 2) AEP event, so the water-retaining structures may need to be much smaller, below bankfull level, to ensure that in high flows the structure overtops before the water floods out of bank, and ideally should be designed to be removed in advance of high flows. A Flood Risk Activity Permit would be required for temporary dry working areas and over-pumping in main rivers, and a consent is likely to be required from the LLFA for works in ordinary watercourses. 2.6.2 The FRA (and paragraph N.11.25 of the Water Management Plan (APP-198)) states that temporary watercourse crossings, such as culverts, are proposed to be sized for the 10% AEP event or as otherwise agreed with the Environment Agency for main rivers. It is likely that we would want a larger culvert, unless it can be demonstrated that in a larger flood event the small culvert would not increase flood risk, and that the flood flows would not be increased in depths or extent, or that the culvert can be removed in advance of high flows. Either way, a temporary Flood Risk Activity Permit would be required for the works. 2.6.3 It is stated in the FRA and REAC (APP-185 reference RDWE 3) that stockpiles and storage areas will be more than 10m from rivers and in Flood Zone 1 where possible. If this cannot be achieved, then they will be able to be moved or bunded in receipt of a flood warning. We

would be unlikely to want to see bunded stockpiles in Flood Zone 2 or 3 without calculations to show there would be no increase in flood risk elsewhere. It would be preferable to locate stockpiles in Flood Zone 1. The details of all temporary works in Flood Zones 2, 3 and within 8m of the main rivers will need to be agreed through the temporary Flood Risk Activity Permits. FRA Annex B – Construction Elements Plans 2.6.4 It would be beneficial if the flood extents could be added to this Plan so that it is clear to see which lay down areas and temporary storage areas are proposed to be in the Flood Zones, and therefore which may require a temporary Flood Risk Activity Permit.

### **Applicant's Response**

The Applicant acknowledges the Environment Agency's comments and will consult the Environment Agency at the earliest practicable opportunity to gain Flood Risk Activity Permits (FRAP) for temporary structures altering water levels in main rivers e.g. temporary headwall, bridge, culvert, works within the floodplain, temporary storage in a flood plain, dewatering within a flood plain and the temporary diversion of a watercourse. The Applicant will continue to engage with the Environment Agency through the Statement of Common ground to agree a position with regards to any FRAP's required for permanent works e.g. Permanent headwall, permanent bridge, permanent culverts.

The Applicant acknowledges the comments regarding adding the flood extents to the FRA annex B – Construction elements plans and agrees this would be beneficial.. This will be added to the first iteration EMP when it is updated during the examination.

**REP2-053-035**

### **Sub-Question**

3 Contaminated Land 3.1 In our Relevant Representation (RR-011), we requested to review further data and assessments that were either not included within the application or will be required at a later stage to inform the detailed design. We are liaising with the Applicant on this point. The Applicant has stated that we will be provided with all relevant existing reports and source data, and that further information and assessments will be provided as they become available. However, the mechanism for consultation on this, including any required site specific Detailed Quantitative Risk Assessments, has not been confirmed. 3.2 We also raised

concerns in our Relevant Representation that several of the selected borrow pit locations may remain as surface expressions of groundwater after excavation. Any pollution affecting these waterbodies would pose an elevated risk of direct input of contamination to groundwater. The Applicant has advised that any such waterbodies would be passive waterbodies, that receive no discharge from the proposed scheme, and has highlighted the protective measures to be in place during construction. 3.3 We are satisfied on those points but request that the Applicant also confirms that measures will be included to protect any such waterbodies from external sources of pollution during the operation of the scheme. Such measures may include fencing to prevent vehicles from accessing the site to unlawfully deposit waste, and bunding to prevent excess run-off from agricultural land reaching the waterbody.

### **Applicant's Response**

3.1 The Environment Agency has been added as consultee to the second iteration Environmental Management Plan (EMP) (Requirement 3) and third iteration EMP (Requirement 4). The dDCO has been updated at Deadline 3 to reflect this.

The Applicant notes the Environment Agency's statement in its responses to the Examining Authority's First Written Question 8.0.0 that the Environment Agency being added as a named consultee to Requirement 3 would ensure their consultation on the Detailed Quantitative Risk Assessment (DQRA) if included in the EMP. As explained in the Applicant's response to the Environment Agency's comments on that written question, the DQRA is provided in the First Iteration EMP at the following:

A DQRA to support soils reuse:

- Section J.8.6 of the Materials Management Plan (Appendix J to the first iteration EMP [APP-194])
- REAC commitment GS8 (Appendix A to the first iteration EMP [APP-185]).

A DQRA to support dewatering and protection of surface water and groundwater:

- Section N.10 of the Water Management Plan (Appendix N to the first iteration EMP [APP-194])
- REAC commitments GS4 and GS7 (Appendix A to the first iteration EMP [APP-185]).

3.2 Noted. No additional response required.

3.3 The Applicant can confirm that measures (which may include fencing to prevent vehicles from accessing the site to unlawfully

deposit waste, and bunding to prevent excess run-off from agricultural land reaching the waterbody) will be included to protect any such waterbodies from external sources of pollution during the operation of the proposed scheme. The Register of Environmental Actions and Commitments will be updated during the examination period to reflect this.

**REP2-053-036**

### **Sub-Question**

4 Groundwater Resources 4.1 Our Relevant Representation (RR-011) confirmed that we are broadly satisfied at this stage in terms of impacts on groundwater resources, and that all impacts on groundwater receptors will be assessed to the appropriate level of detail during the pre-application process for any dewatering abstraction licence(s). 4.2 We noted that the assessment of groundwater quality due to contaminated land in the Environmental Statement Appendix 14.4 – Groundwater Assessment (APP-161) was done in comparison to Environmental Quality Standards (EQS). Comparison with Drinking Water Inspectorate standards would be required for any sites where groundwater quality at groundwater abstractions could be adversely impacted during construction activities. The Applicant has accepted that this would be appropriate. 4.3 With regard to water resource availability, we highlighted in our Relevant Representation that dewatering activities may require an abstraction licence from the Environment Agency. We encouraged the Applicant to engage with us on that requirement at an early stage to ensure that the necessary permissions can be in place prior to work commencing. 4.4 We stated that consumptive licences are unlikely to be granted in this area as water availability is limited. Although dewatering is generally seen as non-consumptive, if that water is used for dust suppression, as has been suggested, we would then consider that to be a consumptive use. Securing an abstraction licence for such a use is therefore not certain. The Applicant should discuss this with us as part of the licencing pre-application process and consider alternative sources of supply.

### **Applicant's Response**

The Applicant acknowledges that the Environment Agency is broadly satisfied with the proposed scheme at this stage in terms of impacts on groundwater resources and with the Applicant's proposed approach to the assessment of impacts on groundwater

receptors.

The Applicant reconfirms their acceptance of the Environment Agency's requirement for reference to Drinking Water Inspectorate standards for any sites where groundwater quality at groundwater abstractions could be adversely impacted during construction activities.

The Applicant will continue to engage with the Environment Agency through the application process for any dewatering abstraction licences required. At this stage the Applicant does not intend to use water abstracted for dewatering for dust suppression and will consider alternative sources of supply for this purpose. Should it be necessary to reconsider this position the Applicant will discuss this with the Environment Agency during the licensing process.

**REP2-053-037**

### **Sub-Question**

5 Surface Water – Water resources and water quality 5.1 Our Relevant Representation (RR-011) stated we are satisfied that the outlined mitigation can reduce impacts to surface water quality to an acceptable level, and that more detail will be provided in the Second Iteration of the Environmental Management Plan (EMP). 5.2 We asked for clarification on the management of foul and surface water from construction compounds, and for detail on the management of polluting firefighting run-off, highlighting that Essex Fire and Rescue service should be consulted. In relation to emergency procedures and recording environmental incidents, we asked that the process of checking watercourses be formalised within the EMP. 5.3 Through discussions on the Statement of Common Ground, the Applicant has confirmed that these issues will also be addressed as part of the Second Iteration EMP. However, the Applicant has not yet confirmed whether the Environment Agency will be a named consultee for Requirement 3. 5.4 The Applicant has confirmed that connections to mains water supply will be a temporary measure and that discussions with the water company regarding supply are ongoing.

### **Applicant's Response**

The Applicant acknowledges the comments in points 5.1 and 5.2, and confirms that the second iteration of the Environmental Management Plan (EMP) will be developed prior to construction to provide further details on the items identified above. A commitment to provide this further detail, where not already included, will be added to the first iteration EMP when it is updated during the examination.

The applicant confirms that the Environment Agency will be a consultee in requirement 3 on matters related to its functions. This amendment has been made in the dDCO to be submitted at Deadline 3 [TR01600/APP/3.1 revision 3].

The Applicant will continue to engage with the water company regarding temporary supplies.

**REP2-053-038**

### **Sub-Question**

6 Draft Development Consent Order (DCO) 6.1 In our Relevant Representation (RR-011) we requested to be added as a named consultee, for matters within our remit, for Requirement 3 and Requirement 4 (relating to the second and third iteration EMP). This is to ensure that we can review and comment on the proposed detailed mitigation measures for the protection of the environment during the construction and operational phases. This would be in line with the approach taken with other recently approved National Highways road schemes in East Anglia. The Applicant has not confirmed that the Environment Agency is to be added as a named consultee for both Requirements. 6.2 In respect of Requirement 6, we requested that the proposed wording in part (2) be amended to include reference to consultation with the Environment Agency and to the protection of controlled waters. The Applicant has proposed an amended wording at section RR-011-048 of the Response to Relevant Representations (REP1-002). We are satisfied with the proposed wording. 6.3 Requirement 6 only addresses unsuspected contamination. Our Relevant Representation also requested an additional Requirement to detail the measures for managing contaminated land across the scheme. We are in discussion with the Applicant on the issue of land quality and the proposed approach to mitigation. The Applicant has stated that further information will be provided to us, but has not agreed to an additional Requirement and the mechanism to secure consultation has not been confirmed. If information is to be provided as part of the second iteration Environmental Management Plan (EMP), and the Environment Agency is added as a named consultee to Requirement 3, then we would agree that an additional

Requirement is not necessary. 6.4 We previously asked to be included as a named consultee in Requirement 10 Detailed Design part (1)(c). We can confirm that we are satisfied with the wording as proposed. 6.5 We also asked to be added as a named consultee to part (2) of Requirement 11 concerning Surface and foul water drainage. Part (1) of R11 currently requires the Environment Agency to be consulted on the proposals for surface and foul water disposal, including pollution control, prior to the commencement of development. We are not currently a named consultee for part (2), which concerns the approval of any proposed amendments to details agreed under part (1). 6.6 In the Response to Relevant Representations (REP1-002, section RR-011- 048), the Applicant suggests that any proposed amendments would also require an Environmental Permit from the Environment Agency, removing the need for consultation. It is actually the case that such measures may not require a separate Environmental Permit and therefore we should have the opportunity to review any proposed amendments to what has been previously agreed through this Requirement. A similarly worded Requirement which includes the Environment Agency as a named consultee in part (2) has been included within the DCO for other recently approved National Highways road schemes in East Anglia.

### **Applicant's Response**

The applicant confirms that the Environment Agency will be a consultee in relation to the Second Iteration EMP and Third Iteration EMP requirements 3 and 4 on matters related to its functions. This amendment has been made in the dDCO to be submitted at Deadline 3 [TR01600/APP/3.1 revision 3]].

Requirement 6: The Applicant notes that the Environment Agency is satisfied with the revised wording proposed, which will be reflected in the revised draft DCO to submitted at Deadline 3.

We note that the Environment Agency has confirmed in its Written Representation that if the Environment Agency is added as a named consultee on Requirement 3, which the Applicant has agreed to include, then an additional requirement is not necessary.

Requirement 10: The Applicant notes that the Environment Agency is satisfied with the revised wording proposed, which will be reflected in the revised draft DCO to submitted at Deadline 3.

Requirement 11: The Applicant agrees to including the Environment Agency as a named consultee under part (2) of Requirement 11 on matters related to its functions. This change will be reflected in the revised draft DCO to submitted at Deadline 3.

REP2-053-039

### Sub-Question

7 Consents and Licences Position Statement (Environmental Permitting) 7.1 The Applicant is not seeking the disapplication of the majority of the environmental permits that may be required during construction and operation of the scheme, but they have stated they seek the disapplication of the requirement for Flood Risk Activity Permits (FRAP) for permanent structures; and environmental permits for the discharge of water and sediment during operation (discharge consents). The draft Development Consent Order submitted with the application (APP-039) contains a provision at Clause 3 (4) (a) providing for disapplication of these permits. 7.2 In view of our current concerns with the nature of the proposed main river crossings, we are not content to agree to the disapplication of flood risk activity permits for permanent structures. Additionally, we do not normally agree to the disapplication of the discharge consenting regime and so do not consent to this disapplication either. 7.3 The effect of Section 150 of the Planning Act 2008 is that no disapplication of legislation within the remit of the Environment Agency can take place without our consent. 7.4 We note that the Applicant has commented in response to our Relevant Representation that it would not be legitimate for the Environment Agency to withhold consent for culverted crossings (REP1-002, RR-011-049). We do not agree with that statement.

### Applicant's Response

7.2/7.3 The Applicant notes the Environment Agency's comments in relation to the disapplication of flood risk activity permits and discharge consents and in relation to Section 150 of the Planning Act 2008. Negotiations are ongoing with the Environment Agency in relation to the proposed river crossings and it is likely that the final position in relation to the disapplication of permits and protective provisions will be determined by those discussions.

7.4 The Applicant also notes the Environment Agency's disagreement with the Applicant's representations that the acceptability of the use of culverts is a matter for the Secretary of State and that if the Secretary of State makes an order for development consent based on a culverted design, then it would not be legitimate for the Environment Agency to withhold its consent (under a FRAP or under the protective provisions) simply on the basis of the use of culverts (see [REP1-002] [RR-011-049]). The Applicant remains of



this view.

## Essex Local Access Forum (ELAF)

REP2-058-001

### Sub-Question

- 1) The clarification by National Highways that routes labelled as “cycle tracks” have a right of way on foot as well as on a cycle. Do mobility scooters and scooters also have a right of way on these routes?
- 2) The clarification that all footway/ cycleway bridges have been designed to support equestrian use is also welcome. The stated exception being the new foot-/ cycle-way over the A12 at Marks Tey. It should be noted that it is the landowner who decides whether or not a public footpath over his/her land can be converted to a bridleway (or a restricted byway) not Essex County Council, the Highway Authority. Where a path runs over land that is permanently acquired by National Highways it is therefore National Highways who are able to confer higher rights and to determine whether a route will or will not be a public right of way.
- 3) The provision of crossings where it has effectively been impossible to cross the current A12 is welcome. It is unlikely that there will be overt “desire lines” across the current A12 as people are unlikely to desire to cross a dual / triple carriageway with central reservation barriers, which is what the A12 has become.
- 4) As noted in ELAF’s Relevant Representation [RR-026], there is still poor connectivity across the A12 from the housing in Witham to the countryside on the east & south side of the A12 bypass between Junction 21 Hatfield Peverel/ Witham south and Junction 22 Witham north. The only WCH crossing proposed is the new Gershwin Boulevard WCH bridge. The Order Limits are extensive on the south and east side of the A12. As replacing the A12 Wood End slip road bridge with a direct WCH bridge has been rejected, it is requested that a WCH route is provided between Latneys (the kennels) / Hatfield Peverel FP 29 and Howbridge Hall Road (public) / severed Witham FP 25 and the proposed new Gershwin Boulevard WCH bridge. This would provide a circular WCH route for the expanding population of Witham as well as connecting with PROWs to the south and east. It would be really good if an off-road route could be created between Howbridge Hall Road and Witham FP 96 by Olivers Nurseries in order to avoid the double bend section of the busy Maldon Road. It is noted that the Accompanied Site Visit on Thursday 2 March includes stop I at

**Howbridge Hall Road.**

5) Also as noted, in ELAF's Relevant Representation [RR-026], there is still poor WCH connectivity across the A12 between Rivenhall End and Kelvedon south / Kelvedon FP30 / Cranes Lane with the only crossing being the new Snivellers Lane WCH bridge by the Essex Fire and Rescue Centre. Rivenhall FP 46 is due to be extinguished; Rivenhall FP 45 will stop as now at the current / de-trunked A12 with no connection south to Rivenhall FP 36 which is being looped back on itself. As the Environment Agency are not happy with the proposed culverting arrangements for Rivenhall Brook, it is requested that a joint watercourse and footpath route across / under the new A12 is investigated.

6) The new path on the south / SE side of the A12 on National Highways land between Highfields Lane and the relocated Ewell Hall WCH bridge is welcomed. The Order Limits are extensive on the south and east side of the A12 from Highfields Lane to the new Junction 24 and on to the new slip road connection onto Inworth Road. It is requested that a WCH route is provided all the way across on this National Highways land, preferably not immediately adjacent to the A12, to provide an off-road through connection between Highfields Lane and Inworth Road. This would provide a circular route for the expanding population of Kelvedon and Feering.

7) Currently there are two crossings of the A12 at Feering – Threshelfords bridge / Feering FP 18 and the Nursery Bridge, the A12 slip road bridge. The current proposals only have one bridge – the Prested Hall access bridge. Prested Hall drive and the nearby Feering FP 15 will be severed by the new A12. It is requested that a replacement WCH bridge is provided at the north end of Feering. This will provide a circular route for the population of Feering which is due to double by 2033 with the provision of 1,000 new homes.

**Applicant's Response**

The Applicant acknowledges the submission from Essex Local Access Forum for Deadline 2 and has responded to the Interested Party's queries below.

1)

With regard to the first point on the right of way of cycle tracks, mobility scooters may use a cycle track under Section 20(1)(b) of the

Chronically Sick and Disabled Persons Act 1970. E-scooters do not have right of way on the cycle tracks as there is no hire scheme locally and private e-scooters are not legally allowed on public roads in the UK.

2 )

The Applicant acknowledges that the landowner has the right to decide if a public footpath on their land can be converted to a bridleway, not the Highway Authority (unless they are also the owner of the land). The bridges will be designed to be futureproofed to allow for equestrian use, with the exception of Marks Tey overbridge, to avoid severance should the landowner wish to dedicate higher rights to the existing network. Although occasionally a landowner acts unilaterally, it is more likely that such a dedication would either be required under the conditions placed on a planning permission, or as part of Essex County Council's (ECC) efforts to upgrade the wider Public Right of Way (PROW) network. It would be expected that if the landowner did dedicate higher rights to the existing network, it would be reasonable to request that ECC adopt the cost of maintenance.

3)

The Applicant welcomes the support from the Interested Party for the proposed new WCH crossings of the A12.

4)

The Applicant has noted in response to the Interested Party's Relevant Representation RR-026 [REP1-002] that the proposed scheme includes substantial proposed improvements in walking and cycling routes for users travelling between Hatfield Peverel and Witham.

The Applicant appreciates the request from the Interested Party to provide a WCH link between the kennels and Howbridge Hall Road. Due to the close proximity of Dengie Farm to the A12, there is not sufficient space to provide a WCH path between Dengie Farm and the A12. The small number of users wishing to access the Latney kennels from Witham can utilise the additional pedestrian-only route provided at road level adjacent to Footpath 90\_29.

The Applicant also acknowledges the request for an off-road route between Howbridge Hall Road and Footpath 121\_96.

Maldon Road provides connections to existing footways such as the Witham Rail Trail via Blue Mills Hill or through to Witham in the vicinity of Olivers Bridge. As such, the Applicant is not proposing a separate route between Howbridge Hall Road and Footpath

121\_96

5)

Cranes Lane is connected to the realigned Footpath 92\_30 via the new footway beneath Cranes Bridge at the B1024 junction with Essex Fire and Rescue.

Footpath 105\_45 connects to the proposed Rivenhall End East roundabout via a new length of footpath. From here, Footpath 105\_36 can be accessed via the new walking and cycling track on the new B2014 link road to Snivellers Lane Bridge. Users can take Footpath 92\_32 or the new footpath along the attenuation pond access track to reach Footpath 105\_36.

The impacts of proposed culverts on watercourses were assessed under the requirements of the Water Environment (Water Framework Directive) England and Wales Regulations 2017 (ES Chapter 14 Appendix 14.2: The WFD Compliance Assessment [APP-159]). The ES concluded a slight adverse significance of effect for all culverts, which is not environmentally significant, as detailed in ES Chapter 14 Table 14.16 [APP-081]. As stated in Paragraphs 6.4.1 and 6.4.2; and Table 6.7 of the WFD compliance assessment [APP-159] there would be no change to waterbody status and there would be compliance under the WFD. As such, the Applicant is not proposing to change the proposed culvert arrangement at Rivenhall Brook or investigate a joint watercourse and footpath crossing.

6)

The proposed new footpath on the southern side of the A12 can be used to access Inworth Road from Highfields Lane via Footpath 92\_20 and Footpath 145\_5.

7)

Whilst Threshelfords Bridge and Nursery Bridge are proposed to be demolished, access that was provided via these routes is maintained with walking and cycle connections to the proposed new Prested Hall overbridge via Prested Hall Access Road, Threshelfords Access Road and the retained length of Footpath 78\_18.

**Feering Parish Council**

**REP2-059-001**

### Sub-Question

To clarify any ambiguity from the opening words of Councillor Evans at OFH2 on 23 January, Ferring Parish Council (FPC) support the proposed new location for Junction 24 on the west side of Inworth Road / south of Feering. FPC support the proposed new location as Junction 24 will be an all-movements junction and because National Highway's traffic predictions show reduced traffic through Feering (London Road and Feering Hill) and through the pinch-point of Kelvedon High Street in the Conservation Area.

### Applicant's Response

The Applicant is grateful for the clarification and appreciates the Interested Party's support for the proposed new location for junction 24.

**REP2-059-002**

### Sub-Question

#### 1) DEVELOPMENT SITES TAKEN INTO ACCOUNT

As stated at the OFH2, FPC have concerns about National Highway's traffic predictions – other interested parties also have concerns. National Highways OFH1A summary technical note [REP1-009] is helpful but also concerning as the base traffic survey was actually in 2016, not in 2019, updated with available information in 2019. 2016 is over 6 years ago now.

A cause for concern for FPC, as stated at OFH2, is which developments National Highways have and have not taken into account in: • environmental Cumulative Effects Assessment (CEA) – Appendix 16.1 the short list and long list [Appendix 16.1 APP-182 and Appendix OFH2B REP1-012] • Transport Predictions “near certain” and “more than likely” sites [APP-264]

Appendix OFH2B in 9.13 National Highways response to OFH2 [REP1-012] where Parish information has been included is helpful – thank you. By comparison the short list and long list in Appendix 16.1 [APP-182] does not include Parish information. With the Parish information now included and just scrutinising the information for the Feering & Kelvedon Ward, errors are identified in terms

of: • developments not included in the short list when they should be. • developments in incorrect Parishes. • distances of developments from the A12 incorrect. • developments duplicated.

Development sites are described differently with different ID numbers in Appendix A Uncertainty Log in 7.3 Combined Modelling and Appraisal Report - Appendix C: Transport Forecasting Package Report [APP-264].

The concern is that sites are not being consistently included or excluded in the traffic modelling and environmental assessments and may be located in the wrong Parish. Examples for the relatively small Feering & Kelvedon Ward are below. It is requested that National Highways check, correct and update the short and long lists to remove site duplications and to enable an comparison with sites included in the traffic predictions.

Inconsistent examples in Feering & Kelvedon Ward (there are more)

A. Feering development 19/01222/REM (from 16/00569/OUT) was granted on 8 June 2020. This is a 162 (was 165) homes development by Bloor Homes on FEER 233A, part of Crown Estates land FEER 233 which is included in the Feering Strategic Growth Location Policy LPP21 in the BDC Adopted Local plan. This estate is building with people already moved in. So it should be included in the short list in Appendix OFH2B [REP1- 012] – but it is NOT. It is in fact erroneously included in the long list under Boreham Parish, Chelmsford City Council planning district. However, in Appendix 16.1 [APP-182], National Highways have given this development ID 13 and placed it in the long list as it has been associated with 19/02234/REM which was withdrawn in December 2019. No account has been taken of the almost parallel 19/01222/REM which was granted. Feering Parish Council (FPC) – Interested Party ref 20032790 Deadline 2 submission (13 February 2023) This site is correctly included as the “near certain” site ID 6 in the traffic modelling being described as ... “Land north east of Inworth Road (Part of Strategic Growth Location Land south of Feering/west of A12)” with 162 homes 100% built by 2027.

B. BDC Local Plan allocated site FEER 233 is part of LPP21 Feering Strategic Growth Location on Crown Estates land. This is included in Feering in the long list in Appendix OFH2B [REP1-012]. However, in Appendix 16.1 [APP-182], this is site ID 92 which National Highways have described as... an allocation for 750 or more dwellings. It has not been included in the short list as....Separate development application 20/01434/FUL associated with this site is considered in its own right, hence this allocation is not taken forward to the short list. This is an entirely incorrect association as application 20/01434/FUL is a Redrow Homes development off Hatfield Road in Witham. The site is not included by National Highways in the traffic modelling but it is such a large

site with commercial development as well as housing with much of the site straddling Inworth Road, that it seems extremely short sighted not to take the future traffic flows and environmental effects of this site and the Strategic Growth Location into account. Pre-App discussions are taking place.

C. Kelvedon – near certain ID 96: Land adjacent Watering Farm Coggeshall Road, 35 homes 100% built by 2027. Whilst taken into account for traffic modelling this (small) Parker Strategic Land site 17/02271/OUT & 20/02128/REM, ID 38, is omitted from the Environmental Statement Short List and from the CEA.

D. Kelvedon – more than likely ID 22: Station Field, Land west of Kelvedon Station Station Road (Monks Farm), 250 homes 84% built by 2027. This Cala Homes development of 238 homes off Coggeshall Road is building out now. This site is correctly included in the Environmental Statement short list as application 19/01025/FUL with ID 20. However it is also included as ID 46 and ID 47 in the Appendix 16.1 [APP-182] long list as the Cala Homes application 19/01025/FUL and as the Parker Strategic Land application 19/00679/REM (referencing 17/00418/OUT). However, in Appendix OFH2B [REP1-012] it is in the long list under Rivenhall Parish.

E. It is complicated to follow the route of some planning applications, as evidenced by the fact that in OFH2 [REP1-031] Councillor Evans was referring to the small 35 home Parker Land Watering Farm application – see (C) above – whereas National Highways in their response referred to the Parker Land application 21/03579/OUT for 600 homes etc. National Highways state that this large development was not considered in the Environmental CEA stating, correctly, that it is not on land allocated for housing in the BDC adopted Local Plan. However National Highways have included this large development as ID 27 in the Short List in both Appendix 16.1 [APP-182] and in Appendix OFH2B [REP1-012] as application 21/01631/SCO. This site is not included in the traffic modelling. This BDC outline application is still “pending consideration”.

### **Applicant's Response**

TAG M2.2 states that “Former guidance (withdrawn sections of the Design Manual for Roads and Bridges) indicated that models should not be used without justification where the source data is more than five years old when used for detailed scheme appraisal because there might be significant changes to the travel patterns and traffic level. This simple threshold should not be used, as there can be significant changes that would make the use of more recent data inappropriate or there may have been little change and older data may be acceptable. Changes such as the closure or opening of a major retail centre or major transport infrastructure

such as a new bypass would be expected to result in the need to collect and use more recent data.”

Based on the above guidance it is not necessarily a requirement to collect new traffic data if the age of the traffic data is more than 5 years old. Given that recent land use and network changes that could affect the model are quite modest, the usage of alternate traffic count data is proportionate. A set of traffic surveys were proposed to be undertaken from March 2020 for the duration of two weeks to inform the A12 PCF Stage 3 base model updates. However, due to the Coronavirus outbreak in March 2020 and following the Government guidance to stay at home, these surveys were cancelled. Traffic levels were also assumed to be non-typical at that time. As an alternative course of action, further analysis was carried out of the existing traffic data". These existing datasets were reviewed to identify which data was suitable for use for the purposes of this project and based on the criteria that the data should be from a neutral month in 2016, 2017, 2018 or 2019 to align with data required for model development. All counts were factored to 2019 levels using growth factors from the Eastern England RTF18 data (Road Traffic Forecasts) for different classes of road and vehicle classes

The criteria for including developments in the traffic modelling and in the environmental assessments are different. The relevant criteria are set out respectively in the Combined Modelling and Appraisal Report [APP-261] and in Chapter 16 of the Environmental Statement [APP-083]. Local planning authorities were consulted on the lists of other developments.

The response says that there are developments not included in the short list when they should be. However, no examples have been given so no specific reply can be made to that point. It is to be noted, however, that developments are not added to the long list or the short list if they do not have the potential to contribute to significant cumulative effects, therefore not all planning applications in the area are listed.

The parish reference list was generated from our GIS mapping system in response to [REP1-012]. This was done using point data for each development, and it is possible that we therefore did not identify where developments would extend across parish boundaries. Parishes were not listed in the Environmental Statement. The parish within which a development is located has no bearing on the assessment of cumulative effects.

Distances from the A12 development are approximate based on the available information, and are sufficiently accurate to enable scoping of the cumulative effects assessment. We do not always have a site boundary map to measure exactly.



It is acknowledged that there are duplicates in the long list [APP-182], due to multiple applications relating to the same development. These were identified prior to compiling the short list, which contains no duplicates. The duplicates in the long list do not affect the assessment of cumulative effects as only the short list is taken into account due to the level of certainty.

We have responded to examples A to E below. With reference to those responses, we do not feel that there is a need to amend the short and long lists.

Example A has been checked in order to respond to this question, and the stated inconsistency has not been found. Development 19/01222/REM is noted in the long list as being a reserved matters application linked to 16/00569/OUT. To avoid duplication, the former was not included in the short list. The latter is in the long list with Planning ID 30, with Braintree District Council as the local planning authority. It is noted in the long list that “Application dates back to 2016 and subsequently approved. The development is discharging conditions. It is assumed the development is in the final stages of completion. There are no anticipated cumulative effects during construction phase.” The development was therefore not taken forward to the short list. Planning ID 13 in the long list is another reserved matters application linked to 16/0569/OUT. The reserved matters application was withdrawn and so it was not included in the short list because 19/01222/REM superseded this application.

Example B has been checked. We acknowledge that there should not have been a connection made in the long list between the allocation FEER233 and the application 20/01434/FUL. However, the decision not to include either development in the short list remains valid. Allocation FEER233 is an allocation only, with no associated planning applications, and therefore no information on the environmental effects of a future development on which to base an assessment of cumulative effects. Contrary to the representation made, the proposed development – Land Adjacent To Lodge Farm Hatfield Road Witham Essex with 750 dwellings – is included in the traffic models data.

Example C has been checked. This development is included in the long list but not in the short list. It is a small development of only 35 homes with no predicted significant environmental effects hence it is correct not to include it in the short list.

Example D has been checked. We note that you agree that the development has been correctly included in the short list. You note duplicates in the long list. Duplicates are known about and are acceptable in the long list but not in the short list.

Example E: The long list and short list both include planning reference numbers and links to planning applications to make it clear

which development is being referred to. The PCF Stage 3 Uncertainty Log contains information relating to future proposed development sites up to May 2020. Planning applications submitted after the cut-off date are not included in the traffic model. A cut-off was required to ensure that traffic models were complete and ready for the DCO submission. The Parker Land application 21/03579/OUT for 600 homes was received only in December 2021 and therefore not included in the traffic model. However, it should be noted that any developments that are not exclusively modelled in traffic model will be accounted in the background growth for the respective Local Planning Authority as per the National Trip End Model (NTEM) growth forecasts.

**REP2-059-003**

### **Sub-Question**

#### **2) A12 PROPOSALS AND LOCAL ACCESS / WCH ROUTES**

(i) Feering Parish Council are pleased to see several new “footpaths” on land due to be permanently acquired by National Highways. There are several stables & paddocks in Feering and Kelvedon and also a network of East Anglian Farm Rides. Essex County Council / Essex Highways proposals for the de-trunked sections of the current A12 include provision for walkers, cyclists and horse-riders. Feering Parish Council have declared a Climate Emergency and are therefore keen to encourage local activities that are family friendly and do not require the use of a car. So where possible new routes should be available to cyclists and horse riders as well as pedestrians, with circular routes for families with buggies, dog walkers, runners, etc. For example the new path from Worlds End Lane to Inworth Road and the new path in Kelvedon from Highfields Lane to Ewell Hall WCH bridge.

(ii) It is requested that consideration be given to providing a path from Inworth Road, in the vicinity of Hinds Bridge / Domsey Brook, north-east approximately along the line of the current A12 (which is being dug up) to the new Prested Hall overbridge. This would provide a circular WCH route connecting with the new path from Worlds End Lane to Inworth Road - see (i) above. The route would be all on National Highways land.

### **Applicant's Response**

The Applicant welcomes the support from Feering Parish Council regarding the enhancements to the proposed walking, cycling and horse riding network in Feering.

The existing A12 Domsey Brook Bridge is proposed to be extended as the proposed A12 alignment geometry is altered to provide the online section of new A12 between the existing junction 24 and junction 25. The Applicant is seeking rights to connect highway drainage into the Domsey Brook at this location and does not own the land alongside the Domsey Brook between Inworth Road and the A12.

Whilst a new footpath could not be created from Inworth Road along the full extent of the new offline A12 alignment east of the Domsey Brook without the acquisition of third-party land and overcoming topographical challenges, the Prested Hall overbridge can be accessed from the vicinity of Domsey Brook and Hinds Bridge via Inworth Road and the existing Public Right of Way 78\_18, and its proposed diversion which re-uses some 200m of the existing A12 alignment. This arrangement is shown on the Streets, Rights of Way and Access Plans [AS-027]. The forecast decrease in Annual Average Daily Traffic (AADT) on Inworth Road north of the A12 is expected to improve safety conditions for pedestrians outside of the traffic peaks, when this leisure route would be expected to be most widely used.

**REP2-059-004**

### **Sub-Question**

(iii) As previously stated, the historic brick Hinds Bridge on Inworth Road is narrow with no safe route for pedestrians and cyclists. Improvements are requested.

### **Applicant's Response**

The Applicant's traffic model indicates that there will be a small decrease in general traffic and a large decrease in the number of heavy goods vehicles using the bridge as a result of the proposed scheme. As the proposed scheme does not materially affect the safety of walking or cycling on Hinds Bridge, interventions at the bridge have not been included in the proposed scheme.

REP2-059-005

**Sub-Question**

(iv) The current plans stop up both Prested Hall drive and Feering PROW 15 to the east. These routes are used together with the current Threshelfords bridge over the current A12 as a convenient and semi-rural circular route. It is requested that National Highways provide a public WCH crossing over the new A12 in the general area of Prested Hall Drive / Feering PROW 15 to maintain this north-south connectivity.

**Applicant's Response**

Walking and cycling access is provided over the proposed new Prested Hall overbridge. This links Public Right of Way (PRoW) 78\_15 at Prested Hall Road to PRoW 78\_18 west via the realigned Threshelfords Access Road to maintain the north-south connectivity over the A12. This arrangement is shown on the Streets, Rights of Way and Access Plans – Part 2 [AS-027].

REP2-059-006

**Sub-Question**

(v) The north end of Easterford Road is currently and will still be in Feering Parish. FPC were not advised and not consulted over the proposal, first shown in the Supplementary Consultation of November 2021, to gate the new Easthorpe Road bridge over the new A12 so that it was not available for general vehicular traffic. FPC are against this gating as it removes a historic access to the A12 and so is a decrease in the road network not an improvement. Traffic to / from Easthorpe wishing to join the A12 will either have use the narrow lanes to and through Messing for Junction 24 or the lanes to Copford for Junction 25 at Marks Tey. FPC request that the proposed gating for the new vehicular Easthorpe Road Bridge is removed.

**Applicant's Response**

In response to the statutory consultation proposals, the Applicant received a lot of concerns about the improved access arrangements proposed. These concerns referred to the increase in traffic predicted for Easthorpe Road and the risk of vehicles using the Easthorpe Road Bridge as a rat-run to the A12 lead to the review of the access arrangements originally proposed. The proposal to close Easthorpe Road Bridge to general traffic was first put forward for comment at the Supplementary Consultation in November 2021 as a result of these concerns and further information can be found in Consultation Report - Annex J2: Section 47 Consultation Material [APP-057]. The Interested Party responded to this consultation.

Closing the Easthorpe Road Bridge to general traffic will direct traffic towards School Road and London Road, rather than through Easthorpe village. This proposal has received a positive response from the community at supplementary consultation. Removing general traffic from the Easthorpe Road bridge also creates a safe walking, cycling and horse riding (WCH) route across the A12.

## Historic England

REP2-060-001

### Sub-Question

1. Introduction 1.1 The Historic Buildings and Monuments Commission for England (HBMCE), is better known as Historic England, and we are the Government's adviser on all aspects of the historic environment in England - including historic buildings and areas, archaeology and historic landscape. We have a duty to promote conservation, public understanding and enjoyment of the historic environment. HBMCE are an executive Non-Departmental public body and we answer to Parliament through the Secretary of State for Culture, Media & Sport. 1.2 In relation to section 88 of the Planning Act 2008 (as amended) and the infrastructure planning (examination procedure) rules 2010 (as amended) we are a statutory consultee with responsibilities within the terrestrial landscape. 1.3 The applicant has provided a full Environmental Statement, which includes a chapter on cultural heritage (ES Chapter 7, supported by Appendices 7.1-10). This includes the results of geophysical survey, archaeological trial-trenching and Palaeolithic and palaeoenvironmental evaluation. 1.4 Historic England has been engaged in detailed pre-application discussions with the applicant's heritage consultants since the Scoping Opinion stage of the proposals. 1.5 Historic England is in agreement with the baseline data considered in the cultural heritage chapter of the ES and the list of designated and non-designated heritage assets set out in Appendix 7.1. We are also in agreement with the methodology used to assess the cultural heritage datasets in Chapter 7.

1.6 In our Section 56 Representation (dated 21 October 2022, Our ref: PL00753271) we identified that this development has the potential to impact upon the historic environment, and that without mitigation this impact has the potential to be significant in relation to some heritage receptors. 1.7 Historic England's advice on designated heritage assets will be limited to the impact on the significance of highly-graded designated heritage assets (scheduled monuments, grade I and II\* listed buildings) which we consider could be harmed by the proposed development. 1.8 We have concerns, in particular, in terms of the assessment of the impact of new offline road sections on the significance of two scheduled monuments: the 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980) and the 'Medieval moat at Marks Tey Hall' (NHLE 1477794). 1.9 We do not wish to comment on grade II listed buildings or individual non-designated heritage assets as these are outside the remit of Historic England. We are content to defer to the Local Planning Authorities and their conservation and archaeological advisors on those matters and we refer the examining authority to their submissions as relevant. 1.10 Our advice includes comments on potential groundwater issues that might have an impact on heritage assets, both on built heritage and buried archaeological remains. 1.11 In relation to archaeology, the remit for detailed comments and advice on non-designated archaeological remains lies with the relevant Local Authority Archaeological Advisors. However, our advice includes comments on the submitted documents relating to the archaeological assessments, specifically on the geophysical survey, the trial-trenched evaluation, Palaeolithic and palaeoenvironmental evaluation. These comments are set out below in Chapters 7- 10 of our Written Representation. 1.12 Our advice includes comments from our regional Science Advisor and includes suggestions of further detail we would like to see considered in the Archaeological Mitigation Strategy in order to ensure the strategy is robust. 1.13 Historic England has some concerns about the draft Development Consent Order. We recommend that DCO Section 7 of Schedule 2 Requirements relating to Archaeology should be amended in accordance with our comments and reissued for examination and approval before consent is granted.

### **Applicant's Response**

The Applicant welcomes Historic England's positive comments on the conduct of consultation and the content of Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074] and its support regarding the baseline information presented.

The Applicant notes Historic England's intent to defer to the relevant Local Planning Authorities on matters relating to grade II listed buildings and non-designated heritage assets. The Applicant has consulted separately on these matters with the relevant Local

### Planning Authorities.

The Applicant notes Historic England's intent to comment further on specific documents and matters, including the Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End and the Medieval moat at Marks Tey Hall in this written representation.

Section 1.3 of Appendix 7.10: Archaeological Mitigation Strategy, of the Environmental Statement [APP-118] notes that consultation to agree the detailed scope of mitigation is ongoing. To that end, the Applicant will submit a Final Archaeological Mitigation Strategy in due course taking the outcome of these consultations and other comments received during the course of the Examination into account.

The Applicant responds in detail to the points raised by Historic England, below.

**REP2-060-002**

### Sub-Question

2. Policy 2.1 The avoidance of direct impact on designated assets is an important principle and direct impacts on scheduled monuments are rare. Policy directs us towards sustaining and enhancing assets (see NPSNN 5.130) and great weight is given to their conservation in decision making (see NPSNN 5.131). Likewise, any impacts, significant effects or harm need clear and convincing justification (NPSNN 5.131). 2.2 In addition, Para 5.132 recognises that 'any' harmful impact on the significance of a designated heritage asset should be weighed against the public benefit, and that the greater the harm, the greater the justification that will be needed. In this case policy 5.134 is also relevant in that, 'Where the proposed development will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal'. 2.3 The 2021 version of the National Planning and Policy Framework (NPPF) is also relevant in relation to the principles required to test this development. In particular, it establishes a presumption in favour of sustainable development in the planning system (paragraphs 7, 8, 10 and 11) which also identifies protection of the historic environment as an important element of achieving sustainable development. Further policy principles relating to the historic environment are set out in Chapter 16 of the NPPF. 2.4 Paragraph 199 requires the planning authorities to place 'great weight' on the conservation of designated heritage assets, and states that the more important the asset the greater the weight should be, 'this is irrespective of whether any potential

harm amounts to substantial harm, total loss or less than substantial harm to its significance'. 2.5 Paragraph 200 States that 'any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification'. 2.6 Paragraph 202 states that where a development proposal will lead to 'less than substantial harm' to the significance of a designated heritage asset, this harm should be 'weighed against the public benefits of the proposal'. 2.7 Paragraph 203 also goes on to state states that 'the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset'.

### **Applicant's Response**

Table 7.4 of Environmental Statement Chapter 7: Cultural Heritage [APP-074] sets out how the requirements of the National Policy Statement National Networks(NPSNN) have been addressed in the assessment. The requirements of the National Planning Policy Framework (NPPF) (2021) have also been taken into account.

The Applicant is content that the studies conducted to inform their assessment are in compliance with the requirements of the NPSNN and NPPF.

Further detail can be found in Environmental Statement Chapter 7: Cultural Heritage [APP-074] and the Case for the Scheme - Appendix A: National Policy Statement National Networks Accordance Table [APP-250].

**REP2-060-003**

### **Sub-Question**

3. Comments on the draft Development Consent Order PINS Document reference 3.1 3.1 We recommend the draft Development Consent Order is not approved until the following amendments have been made to Section 7 of Schedule 2 Requirements Part 1 relating to Archaeology. 3.2 We have raised a number of concerns, below, in our Rule 6 Written Representation about the archaeological mitigation strategy referred to in 7(1) of the draft Development Consent Order. We would recommend these



concerns are addressed, and Section 7 of Schedule 2 is amended, and submitted for examination and approval before consent being granted. 3.3 The outline written scheme of investigation, referred to in 7(1)-(3) of the draft Development Consent Order should be prepared and submitted for examination and approval before consent being granted. 3.4 The outline written scheme of investigation should be supplemented by a detailed written scheme of investigation prepared for each stage of archaeological investigation by the archaeological organisation commissioned to undertake the work. This should be included in the Development Consent Order to ensure the detailed scope of investigation is approved by the relevant planning authority and Historic England prior to commencement of the archaeological investigation. 3.5 The written scheme of archaeological investigation for each stage of archaeological investigation should be approved by the relevant planning authority and also approved by Historic England, as the statutory historic body. We would recommend, therefore, that Historic England is a named party in the Development Consent Order to ensure subsequent documentation relating to archaeological investigation are also approved by Historic England post DCO being granted. 3.6 A timetable for each stage of archaeological investigation, including fieldwork, assessment, analysis, reporting, publication and archiving, as well as display and presentation and community engagement, should be submitted to and approved by the relevant planning authority and Historic England. This should be included in the Development Consent Order to provide clarity to all parties as to when the approval of the detailed written scheme of archaeological investigation or detailed method statement, by the competent authority, will occur. It should allow sufficient time for review and any amendments and discussion as necessary with the relevant planning authority and Historic England. 3.7 The archaeological organisation commissioned to undertake the scheme of archaeological investigation must be approved by the relevant planning authority and Historic England.

### **Applicant's Response**

The Applicant has addressed Historic England's specific concerns about the archaeological mitigation strategy in reply to the relevant section of this written representation.

The Applicant agrees with Historic England and the Local Planning Authorities, that an overarching written scheme of investigation including fully detailed fieldwork methodologies and a timetable for the works will be prepared by the Applicant and submitted to the Local Planning Authorities and Historic England for review and approval. This would be secured through the first iteration Environmental Management Plan [APP-184] and Commitment CH2 of the Register of Environmental Actions and Commitments

[APP-185].

REP2-060-004

**Sub-Question**

4. Comments in relation to the Environmental Statement: Chapter 7 Cultural Heritage

4.1 The applicant has provided a full Environmental Statement, which includes a chapter on cultural heritage (Chapter 7, supported by Appendices 7.1-10). We do not have any specific comments to make on the majority of designated heritage assets assessed in this document.

4.2 We broadly accept the findings, with the exception of the assessment of two scheduled monuments: the 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980) and the 'Medieval moat at Marks Tey Hall' (NHLE 1477794). Historic England's advice on designated heritage assets will be limited to the assessment of the impact of new offline road sections on these scheduled monuments.

4.3 We also have a small number of comments and recommendations concerning the layout of Chapter 7, below:

- We note the scheduled monument known as 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980) has not been illustrated on Figure 7.1. The scheduled monument known as 'Medieval moat at Marks Tey Hall' (NHLE 1477794) is also unclear on this illustration. We recommend the applicant is required to produce an amended illustration for examination to ensure these scheduled monuments are clearly illustrated.
- In our view, it is difficult to distinguish the designated from the non-designated heritage assets in Appendix 7.9, the Cultural Heritage Impact Assessment Summary Table. Asset No. 399, for example, is the scheduled monument known as 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980). This is unclear in the Summary Table, however, because Asset No. 399 is not labelled as a scheduled monument.
- We would advise that a separate column is added to Appendix 7.9, the Cultural Heritage Impact Assessment Summary Table, to ensure the designated heritage assets can be clearly identified; alternatively, the designated assets could be separated into a different table. We recommend this table is amended in accordance with our comments and reissued for examination.
- We would advise that detailed illustrations are produced to show the location of each asset number listed in the Summary Table, Appendix 7.9. Currently, only some of these are marked on Figure 7.1 and it is difficult to ascertain the location of the majority of the heritage assets listed in the ES. Also, they are not illustrated in either Appendices 7.1 or 7.2. We would recommend, therefore, that this

document is amended in accordance with our comments and reissued for examination.

### **Applicant's Response**

The Applicant notes the comments about the depiction of the two scheduled monuments mentioned in Historic England's written representation and will issue for examination supplementary drawings clearly illustrating each asset and its relationship to the proposed scheme. These would be submitted in due course.

Because of the large number of heritage assets in the baseline, for clarity only those specifically mentioned in Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074] were illustrated on Figures 7.1 [APP-215] and 7.2 [APP-216]. The Applicant notes the comments about the difficulty this created and will submit a revised version of each figure with all heritage assets labelled in due course.

The Applicant notes the comments regarding the identification of designated heritage assets in Appendix 7.9: Cultural Heritage Impact Assessment Summary Tables, of the Environmental Statement [APP-117]. The Applicant will submit a revised copy of this document amended to include a column for designations in due course.

**REP2-060-005**

### **Sub-Question**

5. Comments in relation to the Historic Environment Settings Analysis 5.1 We note the assessment of likely significant effects in Section 7.11 of Chapter 7. The assessment concludes that no impacts have been predicted for the eight scheduled monuments identified in the baseline dataset during construction or operation (Sections 7.11.4 and 7.11.77, also Appendix 7.9, Tables A.1 and A.4). Section 7.11.4 states, 'their value is derived principally from their evidential and historical value. Their setting within the modern arable landscape contributes little to their value and would not be significantly affected by construction of the proposed scheme'. Section 7.11.77 states that no significant operational effects are envisaged upon archaeological remains. 5.2 While we agree there would be no direct impacts on these scheduled monuments during construction, we have concerns in terms of the

assessment of setting and the impact of new offline road sections on two scheduled monuments: □ the 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980) (ES asset 399) and, □ the 'Medieval moat at Marks Tey Hall' (NHLE 1477794) (ES asset 818). We would like to comment, below, on the assessment of these scheduled monuments.

### Applicant's Response

The Applicant acknowledges Historic England's agreement that there would be no direct impacts on eight scheduled monuments during construction of the proposed scheme. However, the Applicant notes that Historic England has comments about the assessment of the setting and the impact of the new offline road sections on two scheduled monuments: the Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End, and the Medieval moat at Marks Tey Hall. The Applicant has provided a response in REP2-060-006 and REP2-060-007 below.

**REP2-060-006**

### Sub-Question

5.3 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980) 5.3.1 In terms of the impact on the scheduled monument known as 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980), we note that a new offline and embanked section of road will be constructed in the field to the north of the monument. 5.3.2 A large drainage attenuation and water treatment pond, as well as ecological ponds and planting, is proposed between the new offline road and the scheduled monument. 5.3.3 The magnitude of impact (and residual magnitude of impact) is assessed by the applicant as no change while the significance of effect (and residual effect) is assessed as neutral. 5.3.4 We do not accept this assessment of the impact of the proposed offline road section on the significance of this scheduled monument. We consider the setting of the scheduled monument contributes positively to its significance. We consider the setting of the monument will be affected by construction and also operation of the new offline road section. 5.3.5 The scheduled 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' is situated on, or just above, the flood plain of the River Blackwater, at the confluence of Cressing Brook. The valley side slopes gently upwards, and northwards, away from the floodplain. It is currently within an open agricultural setting. In our view, the

rural landscape surrounding the scheduled monument makes a positive contribution to the setting, even though the monument is no longer visible as an earthwork. 5.3.6 The current line of the A12 is set down in a slight cutting c.400m to the north, partially hidden from view of the scheduled monument. The proposed development will require the construction of major new earthworks - a new embanked and offline section of road that would be closer to the scheduled monument, in the field immediately to the north (ES Figure 2.1 Environmental Masterplan CH. 23900 TO 25100, Sheet 11 of 21). 5.3.7 We consider the proposed construction of the road on an embankment to the north of the scheduled mortuary enclosure, along with associated landscaping works, would result in a substantial change to the context of the monument. In our view, this would result in harm to the significance of the scheduled monument known as 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End', both during construction and operation. Placing this in terms of the National Policy Statement National Networks(NPSNN) we conclude that this would be a high degree of 'less than substantial' harm under paragraph 5.134. 5.3.8 We recommend the assessment of the setting of, and impact of the proposed development on, this scheduled monument is reconsidered by the applicant and, where appropriate, the document revised and reissued for examination. This is because the setting makes a positive contribution to the significance of this monument and because the proposed development will result in a significant change to the setting. 5.3.9 We consider the ExA would need to be assured the mitigation for the scheduled 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' would be sufficient to meet the policy tests given that we have identified harm to the significance of the assets. This is to ensure the balance can be weighed as set out in policy 5.134 NPSNN and 202 of the NPPF. 5.3.10 We would recommend that proposals should be put forward by the applicant to mitigate the impact of the offline section of road on the significance of the scheduled monument.

### **Applicant's Response**

The Applicant notes Historic England's comments on the magnitude of impact and significance of effect during construction and operation of the proposed scheme on the Neolithic long mortuary enclosure. Having reviewed the assessment in the light of the comments above, the Applicant has revised the assessment for discussion and agreement. This has been made using the five-step process presented beneath Paragraph 19 of The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (second edition) (Historic England 2017).

Assessment of setting

The Applicant considers that the visual element of the setting of the Neolithic long mortuary enclosure within the modern farming landscape and close to the existing A12 contributes little to its significance. Traffic noise from the A12, and transient noise from farming, as well as the emphasis of the existing highway by the presence of its lighting columns are all negative, or at best neutral, factors.

In contrast, the careful topographic positioning of the Neolithic long mortuary enclosure on an imperceptible area of high ground within the floodplain of the River Blackwater close to its confluence with the Domsey Brook is a positive contributor to its setting. Positioning close to watercourses is a common feature of this type of site and contributes to the understanding of its function and the influence of the landscape to the choice of location made by its builders.

Furthermore, the association with non-designated subsurface archaeological remains defined by cropmarks to the east, south-east and south, including a possible small henge (Asset 391), hint at the presence of a possible ritual landscape associated with the Neolithic long mortuary enclosure. Continuing south, there are a number of similar cropmark sites also on higher ground west of the River Blackwater. While these are unlikely to all be contemporary with the Neolithic long mortuary enclosure, they illustrate the importance of intangible associations with the topography and other features as well as with the visual element of setting in this case.

#### Assessment of impact

The mainline of the proposed scheme would be located approximately 330m west of the monument at its closest point and approximately 60m closer than the existing A12. The Order Limits extend further and would be approximately 200m west of the monument where they would encompass an attenuation pond and an area of ecological mitigation comprising grassland and woodland planting, and groups of individual trees.

#### Construction effects

There would be no physical impact on the scheduled monument during construction of the proposed scheme.

The introduction of the new raised section of highway, and creation of a balancing pond and ecological mitigation ponds, would be a noticeable permanent change. There would also be a temporary impact from noise and movement from construction machinery. The construction effect was assessed in Environmental Statement Appendix 7.10: Cultural Heritage Impact Summary Tables [APP-

117] as being of no change magnitude and neutral significance on a high value asset. Construction of the proposed scheme would not affect the relationships between the Neolithic long mortuary enclosure and either the River Blackwater and its topographic setting, or the non-designated subsurface archaeological remains.

In light of Historic England's comments, the impact of construction of the proposed scheme on the Neolithic long mortuary enclosure has been re-assessed and revised. The impact of construction has been re-assessed to be minor, leading to an effect of slight adverse significance (not significant) on the setting of the Neolithic long mortuary enclosure.

#### Operation effects

Once mature, the proposed landscape mitigation including grass verges planted with hedgerows and individual trees, as well as the planting proposed around the attenuation pond and ecological mitigation area (as shown on sheet 11 of the Environmental Masterplan, part 2 [APP-087], would reduce the visual impact of the proposed scheme on the setting of the Neolithic long mortuary enclosure. Changes in noise near the asset during operation are predicted to be in the region of +0.1 to +0.9dB (see noise change plans in Figure 12.8 of the Environmental Statement, sheet 6 [APP-235]). This change would not be perceptible in the context of the existing setting of the mortuary enclosure. It should be noted that this section of the new A12 would have a road surface with better noise reducing properties than a conventional low noise road surface, as secured by NV10 in the Register of Environmental Actions and Commitments (REAC) [APP-185].

The operation effect was assessed in Appendix 7.10 of the Environmental Statement [APP-117] as being of no change magnitude and neutral significance. Having reassessed the operational impact in light of the comments received from Historic England and taking the proposed mitigation measures into account, the impact of operation of the proposed scheme has been re-assessed to be of minor magnitude on an asset of high value, leading to an effect of slight adverse significance (not significant) on the setting of the Neolithic long mortuary enclosure.

The Applicant is confident that once mature, the proposed landscape planting would help to integrate the proposed scheme into the landscape, reducing the effect of its presence on the setting of the Neolithic long mortuary enclosure. These measures would be secured through the commitments contained in the REAC and embedded mitigation shown on the Environmental Masterplan [APP-087], as discussed above [APP-185].

Although the above would be a change from the assessment of impact during operation of the proposed scheme presented in Chapter 7: Cultural Heritage [APP-074] of the Environmental Statement, the residual effect is still not significant and therefore not a material change. The revised residual significance of effect would also be of less than substantial harm as defined in Paragraph 7.5.19 of Chapter 7: Cultural Heritage [APP-074] of the Environmental Statement.

In light of Historic England's comments above, the Applicant has presented a reassessment of the impact of the proposed scheme on the Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End at construction and operation. Taking the contribution of all elements of its setting and the impact of the scheme on them into account, the Applicant has assessed the effect of the proposed scheme on the monument would be of slight adverse significance (not significant) after mitigation. In line with the definition presented in Paragraph 7.5.19 of Chapter 7: Cultural Heritage [APP-074], the Applicant believes that the effect of the proposed scheme would amount to less than substantial harm for the purposes of Paragraph 1.134 of the NPSNN 2014.

**REP2-060-007**

### **Sub-Question**

5.4 'Medieval moat at Marks Tey Hall' (NHLE 1477794) 5.4.1 We have concerns about the impact of the proposed offline road section adjacent to the scheduled monument known as 'Medieval moat at Marks Tey Hall' (NHLE 1477794). 5.4.2 The proposed development would divert the historic and current line of the A12 closer to the scheduled monument and listed buildings at Marks Tey Hall with a new offline road section. The proposed offline road section would also require the reconfiguration of the historic access - diverting the access road to the east, and creating a new roundabout and, alongside, a large drainage attenuation and water treatment pond and planting (ES Figure 2.1 Environmental Masterplan CH. 36700 TO 38200, Sheet 18 of 21). 5.4.3 Appendix 7.9 of the ES identifies the impact of the proposed development during construction on the scheduled Medieval moat at Marks Tey Hall. It is stated, the value of this asset is derived principally from its archaeological remains which would not be affected by construction of the proposed scheme. For construction, the magnitude of impact is assessed by the applicant as minor and significance of effect as moderate, while the magnitude of residual impact is assessed as minor and significance of residual effect as slight. During operation, the magnitude of impact is assessed as negligible and significance of effect as slight. 5.4.5 We consider the significance of the scheduled monument to be greater than the below-ground archaeological remains, as stated in the ES. We



recommend the contribution the setting makes to the significance of the monument needs to be further assessed. This section should be revised and reissued for examination. 5.4.5 The scheduled moated enclosure at Marks Tey Hall is set back, and away, from the line of the historic route, that is the current line of the A12 London Road, within an agricultural landscape context. It is at the end of a historic access road, Hall Chase, that links the moated hall complex with the historic main road. 5.4.6 This historic landscape setting, and configuration of historic farm groups in relation to the A12, can still be readily appreciated. This is replicated to the southwest of Marks Tey Hall at the neighbouring grade II listed Doggetts Hammer Farm (NHLE 1266767) and at Easthorpe Green Farm, which includes the grade II listed Easthorpe Green Farmhouse (NHLE 1238923) and Church View House (NHLE 1225564). 5.4.7 We are concerned to ensure the impact of these proposed changes are adequately assessed, and we believe the proposed construction of the new offline road section to the north of Marks Tey Hall would also result in a change to the historic landscape context of the scheduled monument. Placing this in terms of the NPSNN, we conclude this would be high 'less than substantial' harm under paragraph 5.134. 5.4.8 The impact of the proposed offline road section on all three listed buildings (ES asset numbers 816, 817 and 819) at Marks Tey Hall (the Grade II listed Marks Tey Hall (NHLE 1224576), the Grade II\* listed Barn South of Marks Tey Hall (NHLE 1224577) and the C17 Barn to North West of Marks Tey Hall (NHLE 1266768) has been identified in Sections 7.11.37-68 and Tables 7.12 and 7.14 in Chapter 7 and Appendix 7.9. 5.4.9 In comparison to the scheduled monument, the magnitude of impact and significance of effect on the three listed buildings, as well as residual magnitude of impact and residual significance of effect, are all identified as moderate adverse by the applicant, during construction and operation. 5.4.10 Section 7.11.68 of Chapter 7 states the proposed construction activities are predicted to result in setting impacts to the group of listed buildings at Marks Tey Hall from the earthwork and landscaping activities with associated visual intrusion from construction machinery and traffic together with associated noise and dust. This is assessed as a moderate magnitude of impact on each of these assets and it is considered to result in three direct effects of moderate adverse significance. 5.4.11 Section 7.11.95 states, the operation of the proposed scheme is 'predicted to result in an impact from the presence of the earthworks and structures within settings of the Marks Tey Hall group of listed buildings, which is assessed as resulting in harm to the aesthetic value and historic legibility of the three listed buildings. This would result in moderate magnitude of impacts on three high value heritage assets, resulting in three effects of moderate adverse significance'. 5.4.12 One of the principal reasons the moated enclosure is scheduled is for its group value with the Grade II listed Marks Tey Hall (NHLE 1224576), the Grade II\* listed Barn South of Marks Tey Hall (NHLE 1224577) and the C17 Barn to North West of Marks Tey Hall (NHLE 1266768). All these designated assets form an historic group of high importance and in many ways can be considered as a single, integrated entity. 5.4.13 We note, moreover, that

Section 7.11.65 of Chapter 7 states that the Marks Tey Hall moated enclosure contributes to the legibility, historic and communal value of the three listed buildings at Marks Tey Hall. 5.4.14 We note also the assessment of the impact on the landscape of the proposed offline bypass between J24 and J25, which includes the realignment of the access to Marks Tey Hall and associated landscaping works (Appendix 8.2 of Chapter 8; see also Table 8.14 of Chapter 8). The landscape effects schedule (Appendix 8.2) states the proposed offline section 'would add new, uncharacteristic, conspicuous elements within the arable landscape east of the A12, south and east of Marks Tey'. 5.4.15 We recommend, therefore, the impact of the proposed development on all of the designated heritage assets at Marks Tey Hall as a historic entity should be also assessed by the applicant and the document revised and reissued for examination. This is because the setting makes a positive contribution to the significance of this monument and because the proposed development will result in a significant change to the setting. 5.4.16 We consider the ExA would need to be assured the mitigation for the group of designated heritage assets Marks Tey Hall would be sufficient to meet the policy tests given that we have identified harm to the significance of the assets. This is to ensure the balance can be weighed as set out in policy 5.134 NPSNN and 202 of the NPPF. 5.4.17 We would recommend that proposals should be put forward by the applicant to mitigate the impact of the offline section of road on the significance of these designated heritage assets.

### **Applicant's Response**

The Applicant notes Historic England's comments on the magnitude of impact and significance of effect during construction and operation of the proposed scheme on the setting of the scheduled Moated site at Marks Tey Hall and associated listed buildings: Marks Tey Hall (grade II), Barn north of Marks Tey Hall (grade II), and Barn south of Marks Tey Hall (Grade II\*).

The Applicant has provided a more detailed assessment below for discussion and agreement. This has been made using the five-step process presented beneath Paragraph 19 of The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (second edition) (Historic England 2017).

#### **Assessment of setting**

The moated site at Marks Tey Hall (Asset 818) is one of approximately 6000 medieval moated sites recorded nationally. Despite the relatively large number of known sites, many are scheduled because of their archaeological potential from the ability of waterlogged moat deposits to preserve organic finds and ecofacts, as well as their historic interest as the locations for high status dwellings and

their ability to contribute to our understanding of the distribution of wealth in the countryside during the medieval period. In the case of Marks Tey, it is of particular interest because of its well documented associations with the Merk and de Tey families whose names became associated with the nearby settlement of Marks Tey. Like many such sites, the moated site at Marks Tey Hall is believed to have been constructed between the mid-13th and mid-14th centuries.

Associated with the moated site are three listed buildings: Marks Tey Hall (Asset 819) and the Barn north-west of Marks Tey Hall (Asset 817) both grade II listed buildings, and the Marks Tey Hall south barn (Asset 816) which is grade II\* listed. All three listed buildings were assessed to be of high value in the Environmental Statement, and full details of these and the scheduled moated site can be found in the Cultural Heritage Gazetteer [APP-106]. All three buildings are considerably later than the moated site; the earliest being the south-west barn which is believed to be of early 15th century date; and Marks Tey Hall and the north barn being of respectively 16th and 17th century date. The group of buildings, despite not being contemporary with the moat, are likely to be replacements for earlier buildings fulfilling a similar function. To that end they illustrate the longevity of the site as a whole as a high status farm, maintained by wealth generated from the agricultural land surrounding it.

The moat itself survives as a partial water-filled circuit surrounding a rectangular platform where the house stands in its south-west corner. The two barns stand a short distance outside the moat near its north-west corner. The circuit of the moat is defined by tall mature trees which serve to visually screen the house from the barns, although their functional relationship as part of a farm is clearly legible when viewed in plan. The field boundaries surrounding the group are also made up of tall mature trees and other vegetation, which serves to screen them from views from the outside as well as providing a strong element of visual protection from external intrusive elements, like the existing A12. The proximity of the listed buildings and scheduled monument to one another and the internal and external screening provided by the mature trees within, and surrounding, the farm all contribute to an inward looking setting for the group.

Marks Tey Hall farm is set back approximately 300m south from the existing A12 and reached by its own access track. Although a large adjoining field to the north is now occupied by a caravan storage facility, it is still possible to appreciate the site as an historic grouping surrounded by associated farmland. When viewed from the existing A12, the farm is visible mainly as a prominent area of vegetation, with only glimpses of the roofs of the house and barns.

This topographic setting is typical of many farms within the study area, including Hammer Farm, Wishingwell Farm and Easthorpe

### Green Farm to the south-west.

The existing traffic noise from the A12, and transient noise from farming, are negative factors in the setting of the group of assets, as is the presence of a group of large modern agricultural buildings south-west of the moated site, although the latter do provide additional visual screening from the A12.

#### Assessment of impact

#### Construction effects

No physical impacts have been predicted for any of the designated heritage assets making up the Marks Tey Hall farm group.

The mainline of the proposed scheme would diverge south-west of its current alignment a short distance west of existing junction 25. Construction of a new access to Marks Tey Hall farm would require the realignment of an approximately 120m long section of Hall Chase immediately south of the existing A12. During the construction period, it is proposed to use the field immediately north-west of Marks Tey Hall farm as a temporary compound and materials lay down area.

Without mitigation, there would be a noticeable increase in noise from the operation of plant machinery, as well as effects from dust during the construction of the proposed scheme. It is proposed to mitigate this impact through the adoption of good construction working principles and considerate working practices to avoid, as far as practicable, the effects of noise, vibration, dust and construction traffic. The proposed acoustic bund south of Hall Chase (shown on sheet 18 of the Environmental Masterplan, part 3 [APP-088]) would be built as early as practicable in the construction phase, so that it can begin to reduce the impacts of noise during construction. These measures would be secured through Commitments AQ1, LV2 and NV1 of the Register of Environmental Actions and Commitments (REAC) [APP-185].

Realignment of Hall Chase at its junction with the existing A12 would change the approach to Marks Tey Hall farm and be noticeable when viewing the site in plan when compared to the existing straight driveway. It would, however, still be possible to appreciate the site's relationship with the surrounding farmland, and its historic connection with the main road to the north would still remain legible.

Temporary lighting during construction may be required at the lay down area and would be positioned with care to avoid impacting

heritage assets and other sensitive receptors. This measure would be secured through commitment LV11 of the REAC [APP-185].

The mature vegetation within and surrounding the moated site and Marks Tey Hall Farm would be retained, and would continue to screen views to, and from, the designated heritage asset during construction of the proposed scheme. This vegetation falls outside of the Order Limits and would therefore be retained.

The impact during construction of the proposed scheme on the moated site at Marks Tey Hall (Asset 818) has been assessed to be of minor magnitude on an asset of high value, leading to an adverse effect of moderate significance. Taking the mitigation measures proposed for construction impacts into account, the residual significance of effect was assessed to be slight, and therefore there is no change to the conclusions presented in Appendix 7.9: Cultural Heritage Impact Assessment Summary Tables [APP-117] of the Environmental Statement.

#### Operation effects

Permanent lighting is proposed for the new roundabout and realigned section of Hall Chase. This would be provided by embedded mitigation in the form of light-emitting diode luminaires designed to reduce light spill into adjacent areas, as described in Paragraph 2.5.71 of Chapter 2: The Proposed Scheme [APP-069]. The impact of lighting would be further reduced by filtering from the mature vegetation surrounding the Marks Tey Hall farm group. This vegetation falls outside of the Order Limits and would therefore be retained.

Retention of the mature vegetation surrounding the moated site and Marks Tey Hall Farm would screen views in, and out of, the site, as can be seen in the photomontage from Viewpoint 24 on Figure 8.5 of the Environmental Statement [APP-220]. Screening would be further enhanced by proposed woodland planting around the acoustic bund west of Hall Chase, and individual tree planting adjacent to the realigned section of Hall Chase and hedgerow and intermittent tree planting south of the proposed attenuation pond once mature (shown on sheet 18 of the Environmental Masterplan, part 3 [APP-088]).

Changes in noise near the asset during operation are predicted to be in the region of +0.1 to +0.9dB (see noise change plans in Figure 12.8 of the Environmental Statement, sheet 11 [APP-235]). This change would not be perceptible in the context of the existing setting of the Asset. The effects of noise from traffic using the realigned section of the A12 would be reduced by the proposed acoustic bund south of Hall Chase, and the use of road surfacing with better noise reducing properties than a

conventional low noise road surface. These measures would be secured through Commitments LV2 and NV10 of the REAC [APP-185].

The impact during operation of the proposed scheme on the moated site at Marks Tey Hall (Asset 818) has been assessed to be of negligible magnitude on an asset of high value, leading to an adverse effect of slight significance. Because the setting of the asset would not be identical to its state before construction of the proposed scheme, the residual significance of effect was also assessed to be slight, and therefore there is no change to the conclusions presented in Appendix 7.9: Cultural Heritage Impact Assessment Summary Tables [APP-117] of the Environmental Statement.

### Summary

The moated site at Marks Tey Hall (Asset 818), and the associated group of listed buildings comprising Marks Tey Hall (Asset 819), the Barn north-west of Marks Tey Hall (Asset 817), and Marks Tey Hall south barn (Asset 816) are all designated heritage assets, assessed to be of high value for their significant archaeological, architectural and historic interest, and their group value as the descendants of a high-status medieval farm.

The setting of the monument is formed of two parts. The group of buildings and the moated site have an inward-facing setting defined by their proximity to one another, and the mature trees both within and surrounding the farm which isolate them visually from their surroundings. The site also has a wider setting formed by its geographical position as an island surrounded by farmland, connected to a main road by a single access route.

Construction and operation of the proposed scheme would introduce new elements of infrastructure into the wider setting of Marks Tey Hall farm and create noise and visual impacts on the asset. Despite the changes to the alignment of the A12 and Hall chase, it would still be possible to appreciate the setting of the moated site at Marks Tey Hall, its relationship with the listed buildings within it and the farmland and main road beyond, and its contribution to its significance. Although a greater residual significance of effect was assessed on the setting of the individual listed buildings, the applicant contends that the proposed scheme would not affect the ability to appreciate the significance of the medieval moated site, the contribution of the listed buildings to its setting, or the contribution of its setting to its significance during construction or operation.

Taking the proposed mitigation measures into account, the residual significance of effects on the asset have been assessed to be

slight adverse at both construction and operation of the proposed scheme, and therefore there is no change to the conclusions presented in Chapter 7: Cultural Heritage [APP-074] of the Environmental Statement.

The Applicant is confident that the mitigation measures proposed during construction and operation of the proposed scheme would successfully deliver the residual effects described above. These measures would be secured through the commitments contained in the REAC [APP-185] and embedded mitigation shown on the Environmental Masterplan [APP-088].

In line with the definition presented in Paragraph 7.5.19 of Chapter 7: Cultural Heritage [APP-074], the Applicant believes that the effect of the proposed scheme would amount to less than substantial harm for the purposes of Paragraph 1.134 of the NPSNN 2014.

**REP2-060-008**

### **Sub-Question**

6. Comments in relation to the Groundwater Assessment 6.1 It is stated in Section 7.9.3 and 7.9.12 of Chapter 7 that the construction impacts could adversely affect the preservation of buried archaeological remains through changes to groundwater levels or through the introduction of pollutants, but there is no mention of how this could be mitigated. 6.2 We note that Sections 7.9.9 and 7.11.39-41 of Chapter 7 state construction impacts on built heritage could result from changes to groundwater conditions that could cause a potential differential settlement risk to historic buildings. Table 7.11 of chapter 6.1 indicates that four grade I and 20 II\* listed buildings (excluding cutting W6, Kelvedon) will be potentially affected by groundwater conditions. 6.3 It is stated in Section 7.11.39, this risk to built heritage assets cannot yet be fully quantified. Further assessment is proposed during the detailed design phase based on data from additional ground investigations. Section 14.10.48 of Chapter 14 states, 'a detailed differential settlement risk assessment based on the detailed design and supplementary ground investigation would be undertaken'. 6.4 Section 14.10.49 continues, 'should detailed assessment confirm that buildings are at risk of differential settlement, additional mitigation measures would be undertaken such as condition surveys and asset protection measures prior to the relevant works being undertaken, and subject to landowner consent, to mitigate any adverse impacts from differential settlement associated with the dewatering activities'. 6.5 We would recommend this further assessment should be carried out as soon as possible, and

provided for examination, to establish the buildings potentially affected by this, as well as the likely effects and the proposed mitigation prior to consent. 6.6 In addition, we note there is also potential for changes in groundwater levels to affect buried archaeological remains. We would recommend that the zone of influence and area of impact (both within and outside of the Order Limits) is modelled and discussed in more detail within Section 7.11.5 of Chapter 7. This section should be revised and reissued for examination. We would also recommend that proposals for mitigation should be submitted for examination and approved before consent is granted.

### **Applicant's Response**

The Applicant notes Historic England's comments regarding potential groundwater impacts on archaeological remains and historic buildings as outlined in Chapter 7: Cultural Heritage of the Environmental Statement [APP-074] and Appendix 7.9: Cultural Heritage Impact Assessment Summary Tables [APP-117].

The Groundwater Assessment in Appendix 14.4 of the Environmental Statement [APP-161] provides the baseline groundwater characteristics within the proposed scheme. It also identifies any significant environmental effects the proposed scheme may have on the groundwater regime and any associated receptors including from dewatering during construction as a result of any earthworks or excavations that penetrate below the water table.

The dewatering assessment was carried out in stages, with an initial screening to consider the potential to generate a dewatering effects followed by an assessment of the effect on all groundwater receptors within the potential zone of influence of dewatering at excavations. A further detailed assessment was then undertaken for all potential impacts identified as of moderate significance or greater.

A preliminary settlement assessment was undertaken for buildings that are expected to fall under the zones of influences using Settle 3 (version 5.010) software. The results identified all buildings with potential to experience a differential settlement of moderate to large significance which is a worst-case scenario. This is the assessment undertaken until a detailed differential settlement risk assessment is carried out during the detailed design phase (as committed by RDWE 44 in the Register of Environmental Actions and Commitments [APP-185]). This detailed assessment would comprise an updated dewatering assessment following the supplementary ground investigation to refine the predicted drawdowns at affected buildings. This assessment will be based on



ground investigation (GI), testing and monitoring, which is currently ongoing, and enable better, more detailed assessments of potential groundwater impacts and design of mitigation measures during the detail design stage. These additional ground investigations will provide the ground parameters in the vicinity of the analysed locations as well as refined in situ hydrogeological characteristics to refine the expected drawdown effects.

Following this further assessment, where required, a detailed settlement risk assessment would be undertaken at locations where risks of differential settlement are still identified.

Should the detailed risk assessment(s) then identify buildings at risk of differential settlement, a condition survey would be undertaken for any such building(s) prior to the relevant works commencing. Where risks of settlement were then found to be realistic, asset protection measures, as specified in the condition survey, would be implemented, subject to landowner consent, prior to relevant works commencing.

In this way, it is anticipated that mitigation measures would be successful in reducing any potential for settlement to acceptable levels. However, this further assessment work is part of the detailed design phase.

Mitigation measures for temporary dewatering during construction would include measures to prevent the dewatering of archaeological sites, for instance, using groundwater cut-off walls or recharge schemes.

**REP2-060-009**

### **Sub-Question**

7. Comments in relation to the Archaeological Geophysical Survey 7.1 We welcome the archaeological evaluation carried out to inform the proposed development. We recognise the geophysical survey is a major piece of work, comprising a magnetometer survey of approximately 635 hectares. 7.2 The remit for detailed comment and advice on non-designated archaeological remains lies with the relevant Local Authority Archaeological Advisors and we do not intend to comment in detail on this report. We do have, however, a small number of specific comments. 7.3 We note that some parts of the proposed route have not been surveyed. We recommend that the applicant is required to submit a timetable for these areas to be surveyed, to ensure the proposed development

is all assessed to the same level or standard, and before the mitigation works are finalised. This timetable should be submitted for approval before consent is granted. 7.4 In particular, the area adjacent to the scheduled monument known as 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' (NHLE 1008980) has not been evaluated by geophysical survey, although this area has been trial-trenched evaluation. 7.5 We recommend this part of the study area is also surveyed, given the proximity of the scheduled monument. This is to ensure that the setting of the scheduled monument is adequately and appropriately assessed. We recommend that the applicant is required to submit a timetable for this area to be surveyed, to ensure the proposed development is all assessed to the same level or standard. This timetable should be submitted for approval before consent is granted. 7.6 The results of this additional geophysical survey should be approved by the relevant planning authority and also approved by Historic England. They should be used to inform the detailed WSIs for mitigation.

### **Applicant's Response**

The Applicant welcomes the positive comments on the extent and quality of the geophysical survey and notes Historic England's intent to defer to Essex County Council on other matters relating to the surveys conducted to inform the Environmental Statement.

It was not possible to access the area west of the scheduled Neolithic long mortuary enclosure when the two phases of geophysical survey were conducted. However, there are no known cropmark sites west of the scheduled monument, and a previous geophysical survey conducted in 2010 produced uncertain results in this area (Essex HER Event EEX56585).

The Applicant notes that throughout the Order Limits, trial trenching appears to demonstrate a good correlation between the geophysical survey results and cropmarks, in that it has confirmed the presence and interpretation of features identified through these means but also produced negative results where neither source had previously identified anything of potential archaeological interest.

Of the 24 trial trenches excavated in this land parcel, only five contained archaeological features, comprising: an irregular sided pit interpreted as a quarry; five sections of shallow ditches, most of which were undated and one of which contained fragments of post-medieval roof tile; and sherd of Romano-British pottery which was interpreted as being residually deposited (see Page 53, Volume 2, of Appendix 7.7: Archaeological Trial Trenching Final Report [APP-114]). None of these features produced dating evidence to suggest a relationship with the Neolithic long mortuary enclosure or other cropmark features nearby.

On this basis, the Applicant believes that the evaluation conducted to date is sufficient to demonstrate the presence or absence of archaeological remains associated with the scheduled monument and that further geophysical survey in this location would be of limited benefit.

The Applicant also notes that at other locations on the proposed scheme, where there have been changes in the Order Limits since the geophysical survey have occurred it has been agreed, with the Local Planning Authorities, in the course of making planning applications for the creation of ecological advanced works, that trial trenching alone would be a suitable evaluation method to identify the presence or absence of archaeological remains for mitigation and no further geophysical survey has been requested. This will be reflected in the next update to the SoCG with Historic England and LPAs.

**REP2-060-010**

### **Sub-Question**

8. Comments in relation to the Archaeological Trial-trenching Evaluation. 8.1 We broadly welcome the trial-trenching report submitted with the application (Appendix 7.7 of Chapter 7). We recognise the trial-trenching evaluation is a major piece of work, comprising a total of 2,117 linear trenches. This work, along with the other evaluation techniques, helps to ensure that below-ground archaeological deposits are adequately assessed, and to inform the proposed archaeological mitigation strategy (Appendix 7.10, see below). 8.2 The remit for detailed comment and advice on non-designated archaeological remains lies with the relevant Local Authority Archaeological Advisors and we do not intend to comment in detail on this report. We do have, however, a small number of comments. 8.3 We note the document A12 Archaeological Evaluation (Chelmsford – A120) Final Assessment Report - Volume 2 (CLIENT REF. HE551497-COS-HER-3\_SO-RP-X-0008), which is part of Appendix 7.7, is a 'draft for review'. We would request the final version of this document is submitted for examination. 8.4 We note there are some gaps in the trial-trenching, and a number of areas of the proposed development have not been investigated by trial-trenching evaluation. We recommend that a separate illustration is produced in the trial-trenching report to show these gaps. We recommend that areas of the route that have not yet been evaluated are also shown on Figure 7.2 of Chapter 7; consequently, this figure should be revised and reissued for examination. 8.5 The areas that have not been investigated by trial-trenching evaluation should be also evaluated with trial-trenching. We recommend the applicant is required to submit a timetable for these areas to be surveyed, to ensure the proposed

development is all assessed to the same level or standard. This timetable should be submitted for examination and approval before consent is granted. 8.6 A report on the results of this additional trial-trenching evaluation should be submitted to and approved by the relevant planning authority and also approved by Historic England. The results should be used to inform the detailed WSIs for mitigation. 8.7 We have previously provided comments to Costain (14/04/2022) on a draft of the trial-trenching evaluation report (Appendix 7.7). We have advised that we would expect to see photographs of trenches and selected features, as well as section drawings, to provide more information about the archaeological features encountered during the evaluation. We recommend these are provided in report to allow the results of the evaluation to be fully assessed. The revised document reissued for examination and approval before consent is granted. 8.8 We have also previously recommended that illustrations need to be provided in the report for Site 41 onwards (following illustration 19) in Volume 1 of the trial-trenching report (Appendix 7.7). We consider it is important these illustrations are provided for Sites 41 to 86, which are listed in Table 1 of Volume 1, to enable them to be fully assessed – and because no further archaeological work is proposed for these areas. We recommend this is added to the evaluation report and the revised document reissued for examination and approval before consent is granted. 8.9 We have also previously requested further information about the selection of proposed eight Watching Brief sites, listed in Volume 1 (Appendix 7.7), which all contained archaeological features defined by the trial-trenching evaluation. We recommend further assessment is undertaken to establish the significance of these features. 8.10 We have previously advised that radiocarbon dating should be undertaken for charred remains defined by the trial-trenching evaluation, where a watching brief has been proposed in terms of further work. We continue to recommend that this work is undertaken to establish the significance of these features and, consequently, to assess the appropriateness of the proposed mitigation strategy for these areas. We recommend this work should be undertaken and submitted for examination and approval before consent is granted.

### **Applicant's Response**

The Applicant welcomes the positive comments on the scale and results of the trial trenching and notes Historic England's intent to defer to the local authority on detailed matters relating to this subject.

A revised trial trenching report addressing the points raised by Historic England is being prepared and will be submitted in due course.

The Applicant is aware that there are areas of the proposed scheme where trial trenching was not conducted. These variously reflect changes resulting from the evolution of the scheme design and Order Limits, areas where trial trenching was not possible due to restrictions like the presence of buried utilities, and restricted access due to the presence of crops or other obstructions. Measures to address this are proposed in Section 5 and Table 5.1 of the Archaeological Mitigation Strategy [APP-118]. The Applicant notes Historic England's preference for trial trenching of all remaining areas of the proposed scheme to be completed for examination and approval before consent is granted. However, Essex County Council, under their remit as advisors on non-designated archaeological remains, has stated that the archaeological trial trenching was conducted to their satisfaction (Paragraph 9.7.9 of Essex County Council's Local Impact Report)).

For clarity, a separate figure will be produced showing gaps in the trial trenching. It should be noted, however, that in some locations mitigation has been agreed with Essex County Council, under their remit as advisors on non-designated archaeological remains, without a requirement for trial trenching to be completed in advance.

The Applicant notes Historic England's comments regarding radiocarbon dating of suitable samples recovered during the trial trenching. Section 14.2 of the Archaeological Mitigation Strategy includes the requirement for the results of earlier evaluations to be included in the overall post-excavation assessment, and this would include scientific dating of suitable samples. This requirement would be included in the written scheme of investigation (WSI), secured through CH2 of the Register of Environmental Actions and Commitments [APP-185].

To reduce the potential risk to programme from unexpected archaeological discoveries, on the basis of the information provided in the Archaeological Trial Trenching Final Report [APP-114] the Applicant has agreed areas of archaeological excavation or strip, map and sample excavation with the relevant Local Planning Authority at seven of the eight sites identified for mitigation through watching brief in the Trial Trenching Final Report [APP-114]. This work is secured through commitment CH2 of the REAC [APP-185]. It was agreed, in consultation with the Local Planning Authority, to remove Site 12 from the scope of mitigation based on the evidence available.

The Applicant will submit a final Archaeological Mitigation Strategy in due course reflecting the outcome of these consultations and comments received during the Examination.

REP2-060-011

### Sub-Question

9.1 We welcome the Palaeolithic and Palaeoenvironmental Evaluation Report (Appendix 7.8 of the ES). The remit for detailed comment and advice on non-designated archaeological remains lies with the relevant Local Authority Archaeological Advisors and we do not intend to comment in detail on this report. We do have, however, a small number of comments. 9.2 We note section 7.6.5 of Chapter 6.3 states that a number of specialist annexes 'are draft and may be updated'. We recommend any necessary revisions are made and the document submitted for examination and approval before consent is granted. 9.3 We note, in particular, the central area lake deposits identified east of Witham proved to be a more complex infilled lake with marginal wetland at its edges. These deposits contained several areas considered to be of high potential for the presence of in situ palaeolithic remains (Chapter 6.1 of the ES, Section 7.8.43). Areas of high potential for the presence of Palaeolithic and palaeoenvironmental remains are shown on Illustration 13 of Appendix 7.8. 9.4 We note that a programme of archaeological excavation and investigation of Palaeolithic and Quaternary Deposits will be developed and implemented, subject to the outcome of ongoing consultation with the stakeholders (Section 7.6.10 of Chapter 6.1). 9.5 It is stated in Section 7.8.40 that specialist geophysical techniques were used to characterise the relationships between deposits, but it is not stated if the approaches were successful. It is clear from Appendix 7.8 that the selected techniques helped to identify patterns that can be targeted at subsequent phases of investigation, but this was not clear in the main Environmental Statement document. We recommend this should be clarified by the applicant prior to the examination being concluded.

### Applicant's Response

The Applicant acknowledges Historic England's comments on the Palaeolithic evaluation report and notes their intent to defer to the local authority on detailed matters relating to this matter.

The results of the specialist geophysical surveys are summarised in Section 4.5 of the Palaeolithic and Palaeoenvironmental Report – Part 1, and illustrated on Figure 1 (Electrical Resistivity Tomography) and Figures 3 to 5 (CMD Explorer surveys) of that report

[APP-115], including an assessment of their success in producing coherent results.

The Applicant notes Historic England's comments on the draft status of some appendices to Appendix 7.8: Palaeolithic and Palaeoenvironmental Evaluation Report [APP-116]. The Applicant is liaising with the subcontractor to finalise these reports.

**REP2-060-012**

### **Sub-Question**

10. Comments on Appendix 7.8: Palaeolithic Evaluation: Fieldwork Stage 1 (Part 1 report) and Fieldwork Stage 2 (Part 2 report)

10.1 The proposed scheme crosses an area of high Palaeolithic potential, with deposits of national significance known to be present, and which would be impacted by the proposed scheme. The Stage 1 and 2 evaluations present the results of the geophysical surveys and the assessment of the test pits and boreholes recovered from across the area of the scheme. 10.2 The evaluation reports build on the findings of the desk-based assessment (Appendix 7.3). They confirm what was expected following the DBA, identifying areas of high archaeological and palaeoenvironmental potential. The work has also demonstrated the importance of the deposits within this region to refine our currently understanding of landscape and environmental change, allowing the BGS mapping to be questioned and to add complexity and detail to the existing evidence. For example, the work carried out to date suggests that more than one lake could be present in the area of the proposed scheme (Part 2 report, Section 5). 10.3 The findings of the reports have been used to outline the next steps in the assessment strategy (Part 1 report, Table 6; Part 2 report, Table 4). An iterative approach will be used to allow the results of each stage of work to guide the mitigation strategy going forward, which is a sensible approach. The work that is proposed post-consent will include additional geophysical surveys, the collection of boreholes, palaeoenvironmental assessments and OSL dating, allowing the deposit model to be updated and refined. 10.4 We are pleased that a detailed, area-specific assessment strategy has been put forward, including purposive geoarchaeological interventions (Report Part 2, Section 6.3, Section 6.4 and Table 4). It is noted that different scales of interventions will be implemented based on the potential of a given area: minimal/low potential areas will be assessed using a single phase of test pits spaced 20m apart. This would prove the area was indeed of low potential or to allow areas of higher potential to be identified. Areas of moderate, high or very high potential would be tested through several phases of interventions, each phase increasing in resolution (Part 2 report, Section 6.3). The ability to revise the assessment approach applied to each area in response to new

information is positive, as it will allow unexpected but important discoveries to be investigated in an appropriate manner. 10.5 It is noted that subsequent WSIs will be prepared for the proposed phases of work, which we look forward to seeing. The outline strategy has been presented in Appendix 5 of the Part 2 report, which looks sensible, but additional detail will need to be presented in the WSI in terms of the approaches that will be used and the resolution of the samples that will be recovered. 10.6 We recommend a timetable for each stage of work is submitted for approval prior to the works commencing. A WSI for each stage of work, prepared by the specialist contractor, should be submitted for approval by the relevant planning authority and also approved by Historic England prior to each stage of these works commencing. 10.7 A report on each stage of work should be submitted for approval by the relevant planning authority and also approved by Historic England. The results should be used to inform the detailed WSI for mitigation. We recommend the document is revised to take account of these comments, and reissued for examination and approval before consent is granted. 10.8 We agree that a robust chronology will be needed to place the evidence into context (Stage 2 report, Appendix 3, Sections 5 and 6), and that a range of techniques will be considered (OSL/IRSL, palaeomagnetism, Amino Acid Racemisation and other specialist dating techniques). 10.9 The Palaeolithic sequences present in the area of the scheme are clearly important, but the geoarchaeological and palaeoenvironmental evidence from the Holocene is also part of the story of the landscape and environmental change. Although a specific section has been included that discusses the Holocene sequence (Part 2 report, Section 4.4), it is noted that the aims and objectives predominantly focus on the Palaeolithic period (Part 2 report, Section 2.1). We would recommend that a specific section, with aims and objectives, is included for the Holocene sequence. We recommend the revised document is reissued for examination, and approved before consent is granted.

### **Applicant's Response**

The Applicant welcomes Historic England's positive comments on the work conducted to date to identify and assess the value of Palaeolithic and palaeoenvironmental archaeological remains.

A specialist with extensive experience of Palaeolithic archaeology has begun re-interrogating the data presented in the Palaeolithic and Palaeoenvironmental Evaluation Report. The results of this work will be a more detailed understanding of the potential Palaeolithic archaeological remains and of the impacts of the proposed scheme upon it. This will allow detailed proposals for the mitigation of any such impacts to be developed, in consultation with ECC's archaeological advisors and other heritage stakeholders including Historic England. This work will be submitted before the end of the Examination so that it can be considered by all the



heritage stakeholders including Historic England. The resulting mitigation proposals will be included in the written scheme of investigation (WSI) for the main works, as set out in Commitment CH5 in the Register of Environmental Actions and Commitments [APP-185].

The Applicant will submit timetables for each stage of work for approval by the Local Planning Authority and Historic England prior to the works commencing. These will be articulated through the Written Scheme of Investigation, secured through Commitment CH5 in the Register of Environmental Actions and Commitments [APP-185].

The Applicant notes Historic England's comments relating to geoarchaeological and palaeoenvironmental evidence from the Holocene and will liaise further with Historic England in discussion on the Statement of Common Ground.

**REP2-060-013**

### **Sub-Question**

11. Comments in relation to the Archaeological Mitigation Strategy 11.1 We broadly welcome the proposed Archaeological Mitigation Strategy presented in Appendix 7.10 of Chapter 7, and which is based on the results of the archaeological assessments. 11.2 We recommend the areas proposed for mitigation, and the different types of mitigation, are more accurately depicted as polygons on Figure 7.10, to show the extent of the proposed mitigation areas more clearly, and so they can be assessed in relation to the evaluation. We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. 11.3 We also recommend that a separate illustration is prepared to show the areas of the route where evaluation is outstanding, to assess the extent of the areas that have not currently been assessed, either by geophysical survey and/or trial trenching. We recommend this illustration is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. 11.4 We recommend the areas of the route where evaluation is outstanding are also surveyed as soon as possible, and in advance of the agreement of the detailed archaeological mitigation, as outlined in our comments above. We recommend the applicant is required to submit a timetable for these areas to be surveyed, to ensure the proposed development is all assessed to the same level or standard. This timetable should be submitted for approval before consent is granted. 11.5 We note the document sets out the scope, guiding principles and

methods for the planning and implementation of the required written scheme of investigation (WSI). 11.6 We recommend that, in addition to the excavations aiming to record the nature, depth, extent, character and date of archaeological deposits, the condition of remains is also recorded (Appendix 7.10, Section 2.3.2). We recommend reference to this is added to the Archaeological Mitigation Strategy and the revised document submitted for examination and approval before consent is granted. 11.7 We broadly welcome the proposed contents of the WSI presented in Chapter 6 of Appendix 7.10. We are disappointed, however, that the outline WSI has not been presented with the submission documents. We note it is stated the WSI will be produced before the start of construction works (Appendix 7.10, Section 1.3.2). We recommend this is submitted for examination and approved before consent is granted. 11.8 Details should be presented about the techniques and approaches that will be used to assess and record the archaeological deposits and remains so that it is clear how this work will proceed, and also to outline what is expected of the contracting unit(s) responsible for excavating the sites. 11.9 The overarching themes of the research questions that will be addressed by the Archaeological Mitigation Strategy should include the investigation of Holocene environments (Appendix 7.10, Section 4.3.1), particularly as this is listed as a specific research aim in Section 4.4.2). We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. 11.10 We recommend the Historic England document 'Curating the Palaeolithic' (2023) is referenced when producing the Outline WSI: . We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. 11.11 We are pleased the value of Bayesian modelling has been considered in order to address the research aims of the project (Appendix 7.10, Sections 4.4.5, 4.4.6). We recommend the Historic England document 'Radiocarbon Dating and Chronological Modelling' (2022) is referenced in the Outline WSI. Also, we recommend that other techniques are considered in addition to radiocarbon dating, such as archaeomagnetism, dendrochronology or OSL dating where appropriate. We recommend these are added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. 11.12 Questions have been asked about the use of enclosures and field boundaries (e.g. Sections 4.4.5, 4.4.6, and 4.4.8). There is the potential for scientific approaches to complement standard approaches to investigate these sorts of features. For example, techniques such as micromorphology could be used to identify the activities carried out in an area from the microfuse present, while techniques such as soil chemistry/lipid analysis could be used to determine if an area was used as an animal pen through the identification of lipid biomarkers associated with faecal remains. This may help understand the organisation of farmsteads and the activities that may have been carried out in an area. We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before

consent is granted. 11.13 For the proposed archaeological mitigation measures – excavation (Chapter 8 of Appendix 7.10), Strip, map and sample excavation (Chapter 9), watching brief (Chapter 10), Palaeolithic investigation (chapter 11) and geoarchaeological and palaeoenvironmental assessment (Chapter 12) - we note that consultation is ongoing with the curators to agree the need for, scope and scale of the mitigation measures. We recommend this consultation is completed, and the scope and extent of all this work is submitted for examination and approved before consent is granted. 11.14 Sections 8.3 and 9.4 outline the scope of the hand excavation work that will be carried out and how different types of features and remains will be investigated. We are pleased to see that in situ burnt features will not be excavated until the potential for archaeomagnetic dating has been considered. We recommend that spatially distinct environmental samples from occupation surfaces should be also considered (Sections 8.3.7 & 9.4.2). We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. 11.15 We are pleased that a dating specialist with a background in chronological modelling will be consulted before, during and after the fieldwork phase in order to provide advice (Section 8.6.3). We are also pleased to see that environmental samples will be processed and initially assessed while the fieldwork is ongoing. This allows timely feedback to be provided to the field team, and to inform the ongoing strategy (Section 8.6.6). This will also prevent the degradation or damage of archaeological/paleoenvironmental remains and will stabilise the assemblage, in line with the CIFA document Collection, Documentation, Conservation and Research of Archaeological Materials (2014, updated 2020): We recommend this is added to the Archaeological Mitigation Strategy and therevised document reissued for examination and approval before consent is granted. 11.16 We note the use of a watching brief has been included in the Archaeological Mitigation Strategy (Section 10 of Appendix 7.10). Ten watching brief mitigation areas are included in the proposed mitigation strategy (Appendix 7.10, Table 5.1); this is two more sites than listed/selected in Volume 1 of the trial-trenching evaluation report (Appendix 7.7). We recommend this is checked and, where appropriate, the Archaeological Mitigation Strategy amended. The revised document should be reissued for examination and approval before consent is granted. 11.17 Section 5.4.2 of Appendix 7.10 states that archaeological fieldwork may be required during the Main Works stage. We recommend the completion of all the archaeological fieldwork in advance of the main works stage, and we have previously advised that we would not recommend the use of a watching brief during the main works. There is a high risk this approach could cause delays to the development if archaeological remains, requiring further investigation, are defined during the main works. We recommend, therefore, the proposed approach is reviewed and revised, and the amended document reissued for examination. Alternative mitigation strategies should be proposed to ensure all archaeological fieldwork is completed well in advance of the main works stage. 11.18 Section 11.2 outlines how test pits will be used to investigate the areas classed as

having moderate, high or very high potential for Palaeolithic archaeology and environmental remains. We note that more information about the proposed strategy is included in Section 6.3 of the Palaeolithic Evaluation report (Appendix 7.8, Part 2), detailing the staged approach that will be used to refine the spacing of test pits from 100m down to 25m where appropriate. The Archaeological Mitigation Strategy should also include this level of detail so that is clear how the work will proceed. We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted.

11.19 It is stated in Section 11.3.2 that a 20mm mesh will be used to sieve deposits and recover small artefacts and remains. It should be noted, the Historic England document 'Curating the Palaeolithic' (2023) recommends that a 1cm/10mm mesh size is used to recover artefacts and faunal remains. We recommend, therefore, this is amended in accordance with the Historic England guidance and the revised document reissued for examination and approval before consent is granted.

11.20 It is stated that, where appropriate, other dating techniques should be considered to investigate the age of deposits sampled in cores (Section 12.3.2), which is welcomed. One of the techniques being considered is archaeomagnetic dating. If this approach is to be applied to deposits sampled by cores, for example, lake deposits, we would recommend this is discussed with a specialist before any cores are collected. The samples will need to be recovered in a specific way to ensure that the relevant information is recorded (for example, the orientation of the core). We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted.

11.21 We welcome the proposed archaeological reporting strategy (Chapter 14 of Appendix 7.10). We welcome the proposed post-excavation assessment and publication, and reference to analysis in Section 14.2.5.

11.22 We consider further detail is provided in the Archaeological Mitigation Strategy relating to specialist analysis, which is a critical stage of work between post-excavation assessment and publication. Also, we recommend an academic review workshop, with the participation of appropriate period and regional specialists, is scheduled into the project at the end of the post-excavation assessment stage. This is to provide peer review of the archaeological fieldwork results and to inform the research objectives for analysis and publication. We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted.

11.23 We note that discussions are currently ongoing with the curators and receiving museums archive officers for the process for the deposition of the (non-digital) archive to a museum (Appendix 7.10, Section 15.3.2). Reference should also be made in this section to the CifA DigDigital toolkit ( ). We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted.

11.24 We have previously advised that attention should be given at an early stage in the project to the archiving and storage, which could be a significant issue due to the likely size of the physical archive (i.e. artefacts and ecofacts). We recommend

the intended location of the physical archive is secured with written commitment from an appropriate local museum or archive repository and stated in the submission. This should be approved prior to the granting of consent. This is important because the size of the archaeological archive is likely to be very large and we are aware there are current issues relating to the storage of archaeological archives in this region. 11.25 We also note that discussions are currently ongoing with the curators and receiving museums archive officers for the process for the deposition of a digital archive via the Archaeology Data Service (Appendix 7.10, Section 15.3.2). In our view, the digital archive should be deposited with the Archaeology Data Service and this needs to be agreed in writing prior to consent, to ensure it is secured. 11.26 We welcome the proposed public engagement aspect of the archaeological work, in section 16 of Appendix 7.10. We note that Section 16.4.6 provides 'a list of activities that could be considered'. 11.27 We recommend the Archaeology Mitigation Strategy should make provision for presentation of the discoveries, within local museums and/or other appropriate public venues along and/or close to the route. This could, for example, include museum quality display cases, including design and display material (either in a museum and/or in another appropriate community building), as well as the design and installation of interpretation panels. It should also make a commitment for the enhancement of the HERs, and provision of resources to integrate the results of the archaeological investigation into the HERs. We recommend this is added to the Archaeological Mitigation Strategy and the revised document reissued for examination and approval before consent is granted. This work should be clarified in more detail in the scheme-specific strategy. 11.28 We note the proposed audience mapping, the targeted audiences and the activities to be undertaken, referred to in Section 16.1.6 of Appendix 7.10. We would recommend that a timetable is submitted for examination and agreed before consent is granted. 11.29 While we support the general list of public engagement activities, we would recommend more detailed information, and a clear strategy, is provided in the Archaeological Mitigation Strategy about this important aspect of the project. We recommend the scheme-specific strategy should be clarified in more detail and subject to approval both by the relevant planning authority and also by Historic England prior to the works commencing. 11.30 We consider that amendments are required to the proposed Archaeological Mitigation Strategy in Appendix 7.10 of Chapter 7 in line with our recommendations above. The revised document should be reissued for examination and approval before consent is granted. 11.31 We would also recommend that a timetable for the archaeological mitigation investigation should be submitted and subject to approval both by the relevant planning authority and also Historic England prior to the works commencing.

### **Applicant's Response**

Consultation between the Applicant and Essex County Council under their remit as advisors on non-designated archaeological remains is ongoing, and a revised version of Figure 7.10 of the Archaeological Mitigation Strategy [APP-118], illustrating the agreed areas for mitigation, will be submitted in due course when the Strategy is updated.

As requested, a figure showing areas of the proposed scheme where evaluation has not been undertaken will be submitted with the revised Archaeological Mitigation Strategy [APP-118]. The Applicant points out that a mechanism to include evaluation of some of these areas is already included in Paragraph 6.1.3 of the Archaeological Mitigation Strategy [APP-118].

The Applicant notes Historic England's preference for trial trenching of all remaining areas of the proposed scheme to be completed for examination and approval before consent is granted. However Essex County Council, under their remit as advisors on non-designated archaeological remains, has stated that the archaeological trial trenching has been conducted to their satisfaction ( Paragraph 9.7.9 of Essex County Council's Local Impact Report). The Applicant would also like to point out that, in some locations, mitigation has been agreed with Essex County Council, under their remit as advisors on non-designated archaeological remains, without a requirement for trial trenching to be completed in advance.

As requested, the Applicant will revise the aims listed beneath Paragraph 2.3.2 of the Archaeological Mitigation Strategy [APP-118] to include "condition" and submit the revised document in due course.

It was agreed during consultation with Historic England and the Local Planning Authorities, that an overarching written scheme of investigation (WSI) would be prepared by the Applicant. This WSI would include fully detailed fieldwork methodologies to be applied at each location where mitigation is required and would be submitted to the Local Planning Authorities and Historic England for review and approval. This is secured through Commitment CH2 of the Register of Environmental Actions and Commitments [APP-185].

As requested, the Applicant will add a reference to the Holocene environment to the list of overarching themes below Paragraph 4.3.1 of the Archaeological Mitigation Strategy [APP-118] and submit the revised document in due course.

The Applicant is aware of the Historic England document 'Curating the Palaeolithic', which was published after the Archaeological Mitigation Strategy [APP-118] was submitted. The Applicant will include reference to this new guidance and re-submit the revised document in due course.

As requested, the Applicant will include a reference to the Historic England document 'Radiocarbon Dating and Chronological Modelling', and to alternative dating techniques such as archaeomagnetism, dendrochronology or OSL, and submit the revised document in due course.

As requested, the Applicant will include a reference to techniques such as micromorphology, soil chemistry and lipid analysis which could be used to identify the function of some enclosure sites and submit the revised document in due course.

Consultation between the Applicant and the Local Planning Authorities to agree the detailed scope of mitigation is at an advanced stage. The Applicant will update the Archaeological Mitigation Strategy [APP-118] to include the agreed scope of investigation and, submit the revised document in due course.

As requested, the Applicant will include a reference to the collection of spatially distinct environmental samples from occupation surfaces and submit the revised document in due course.

As requested, the Applicant will include a reference to feedback of the results of environmental sampling to inform the ongoing sampling strategy in Section 8.6 of the Archaeological Mitigation Strategy [APP-118] and submit the revised document in due course.

As requested, the Applicant will check and update the sites identified in Table 5.1 of the Archaeological Mitigation Strategy [APP-118] for mitigation through watching brief and submit the revised document in due course.

The Applicant shares Historic England's concern about the risks to the archaeological resource and the project programme through the use of watching brief as a mitigation measure. The ongoing consultations between the Applicant and Local Planning Authorities have included the replacement of watching briefs with either archaeological excavation or strip, map and sample excavation as appropriate for seven of the eight sites identified for mitigation through watching brief in the Trial Trenching Final Report [APP-114]. It has also been agreed, in consultation with the Local Planning Authority, to remove Site 12 from the scope of mitigation based on the evidence available. The Applicant will update the relevant sections of the Archaeological Mitigation Strategy [APP-118] to reflect these and other changes as a result of on-going engagement with the relevant stakeholders at the end of the Examination so that they are all reflected in a final document.

As requested, the Applicant will revise the relevant sections of the Archaeological Mitigation Strategy [APP-118] which refer to

proposed techniques to investigate Palaeolithic archaeological remains and submit the revised document in due course.

As requested, the Applicant will update the recommended mesh size in the relevant sections of the Archaeological Mitigation Strategy [APP-118] to bring it in line with the recently published guidance and submit the revised document in due course.

As requested, the Applicant will update Section 12.3.2 of the Archaeological Mitigation Strategy [APP-118] to include a requirement to consult with the appropriate specialist before taking samples for archaeomagnetic dating and submit the revised document in due course.

The Applicant welcomes Historic England's positive comments on the proposed strategy for reporting, including post-excavation assessment, analysis and publication.

The Applicant notes Historic England's comments that an academic review workshop should be considered to provide peer review of fieldwork results and to inform the research objectives for analysis and publication. The Applicant points out that Paragraph 1.5.3 of the Archaeological Mitigation Strategy [APP-118] already includes a commitment to establish such a group of expert archaeological advisors.

As requested, the Applicant will update Section 15.3.2 of the Archaeological Mitigation Strategy [APP-118] to include reference to the ClfA Digital Toolkit and submit the revised document in due course.

The Applicant shares Historic England's concerns about arrangements for the deposition and curation of the physical and digital archives which will result from the proposed mitigation works. Consultation has begun with the appropriate collections to seek agreement in principle. The Applicant will provide a written confirmation of agreement in principle to The Examining Authority and Historic England at the earliest opportunity.

The Applicant welcomes Historic England's positive comments on the proposed programme of public engagement. The Applicant will review Section 16 of the Archaeological Mitigation Strategy in light of Historic England's comments and submit the revised document in due course.

As requested, the Applicant will amend the Archaeological Mitigation Strategy as indicated above to address Historic England's comments and submit the revised document in due course.



As requested, the Applicant will update the list of items below Section 6.1.2 of the Archaeological Mitigation Strategy [APP-118] to include the requirement for a timetable of works and submit the revised document in due course.

**REP2-060-014**

### **Sub-Question**

12. Conclusion 12.1 We have provided detailed advice in our written representation about the scheme, the assessment and comments on the documents that have been submitted for examination. 12.2 Historic England are broadly content with the proposed layout and design. We have some concerns, however, in terms of the impact of new offline road sections on the significance of two sites: the scheduled 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' and the group of highly designated heritage assets Marks Tey Hall. 12.3 In relation to these two sites, we have concluded that the development would result in harm to these designated heritage assets. We have, however, concluded this would be less than substantial in nature. 12.4 In relation to the Historic Environment matters and in coming to a decision the ExA would therefore need to weigh the harm against the benefits, as set out policy. 12.5 We consider the ExA would need to be assured the mitigation for the scheduled 'Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End' and for the group of highly designated heritage assets Marks Tey Hall would be sufficient to meet the policy tests given that we have identified harm to the significance of the assets. 12.6 Our advice includes comments on potential groundwater issues that might have an impact on heritage assets, both on built heritage and buried archaeological remains. 12.7 Our advice includes comments relating to the archaeological assessments, specifically on the geophysical survey, the trial-trenched evaluation, Palaeolithic and palaeoenvironmental evaluation. Our advice also includes comments about the proposed Archaeological Mitigation Strategy. 12.8 We would recommend these comments are addressed, and additional information and clarification provided by the applicant. We would expect revised documents, addressing these comments, to be reissued for examination. 12.9 We also have some concerns with regards to the DCO wording and the role of Historic England. We consider these are matters that would need to be addressed before consent is granted.

### **Applicant's Response**

The Applicant acknowledges Historic England's comments and advice on the proposed scheme and the documents submitted in support of the DCO application. The Applicant has responded to the various comments under the relevant sub-questions above.

**Keith Lomax**

**REP2-062-001**

**Sub-Question**

I am requesting to be added as a late addition to the "interested parties" list. I did not receive notice (nor did any of my immediate neighbours) of the statutory consultation that was held in Summer 2021. I did comment on the additional consultation in November 2021 but my comment was rejected as it did not relate to the limited subject matter of the additional consultation.

Equally, I only found out about this inspectorate review today at an additional meeting arranged after the preliminary hearing meeting held recently.

I am specifically addressing what is shown on the plans as "Gershwin Boulevard Bridge", which is itself a misnomer.

**Applicant's Response**

The Applicant has no objection to Mr Lomax's being confirmed as an Interested Party.

In June 2021, the Statutory Consultation ran for eight weeks and included six public events, as well as six webinars and a virtual exhibition available 24 hours a day during the consultation period. An extensive letter drop took place, advertising the consultation to over 33,000 households in the area. This distribution area covered residents of Olivers Drive.

In November 2021, a Supplementary Consultation was held for a duration of six weeks and included three public events. An extensive letter drop took place, which again covered Olivers Drive, three webinars were held and a virtual exhibition was made available 24 hours a day during the consultation period.

The Applicant can confirm that the Interested Party responded to the Supplementary Consultation in November 2021.

This response was taken into consideration and the Applicants response to the comments made at the Supplementary Consultation

and more specifically, the Interested Party's comments, can be seen in section 2.3 of 5.2 Consultation Report - Annex N: Tables evidencing regard had to consultation responses (in accordance with section 49 of the Planning Act 2008) [APP-062].

The Applicant met with the Interested Party on 27th January 2023 and looks forward to continued engagement.

The Applicant, in accordance with the requirements of Section 56 of the Planning Act 2008, gave the required notice in the required manner on 22nd September 2022. This notice advised the deadline for receipt by the ExA of representations giving notice of a person's interest in, or objection to, the application.

**REP2-062-002**

### **Sub-Question**

I understand that the location of the bridge was established to effectively reinstate a footpath that was severed in the mid 1970s when the Witham By-Pass was constructed. This pre-dates the construction of around 600 houses in Ashby Road, Pondholton Drive, Olivers Drive and around 8 smaller roads in the early 1980s, which together fill a section of the space between Maltings Lane and the A12. Gershwin Boulevard, and the estate that it acts as a spine road for had been constructed progressively over the years of this century and is still ongoing.

The plan is to construct a "multi-use bridge for pedestrians, cyclists and horse riders" over the A12, directly South of the bend in Olivers Drive, together with a new footpath linking to the pavement of Gershwin Boulevard.

Firstly, the proposed design of this bridge is excessive, a simple footbridge would suffice. There is nowhere on the Witham side of the A12 suitable for horses, and cyclists could (and should) use the existing road network.

### **Applicant's Response**

The proposed Gershwin Boulevard Bridge is coloured orange and labelled as "FOOTPATH" on the relevant plans including The Streets, Rights of Way and Access Plans – Part 2 [AS-027] as its primary purpose is to reconnect the exiting footpath 121\_95 north

and south of the A12 which was severed by the construction of the Witham bypass section of the A12.

**REP2-062-003**

### **Sub-Question**

Secondly, the proposed location of the bridge is flawed. There are plans for a new nature reserve to the South of the A12, bounded on its western side by the isolated part of Howbridge Hall Road (which was also severed in the mid 1970s). A bridge from Gershwin Boulevard onto that part of Howbridge Hall Road would provide a better access path to the nature reserve, directly accessible to many times more local residents.

### **Applicant's Response**

The proposed bridge location is based on a range of factors including public rights of way, connection to roads and other routes, and minimising the visual impact of the structure.

Taking these factors into account the Applicant considers the proposed bridge location to be the best position for this structure.

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.

**REP2-062-004**

### **Sub-Question**

Additionally, the Southern end of the footpath being reinstated is onto a sharp bend on a National Speed Limit single carriageway road, with several bends and no pavements. If the footpath linked to Howbridge Hall Road, it would join the road network in a more

open area, and provide a walking route to the nearby James Cooke Wood, which is a local amenity.

### **Applicant's Response**

The proposed bridge would provide access to the proposed replacement land that would form open space. This would connect directly to Maldon Road in the vicinity Olivers Bridge and provide circular routes on existing footways adjacent to James Cooke Wood and to either the Witham Rail Trail via Blue Mills Hill or back into Witham along Maldon Road. Regarding the comments made about the accident record of Maldon Road, in the last five years, up to June 2021, there have been two crashes where slight injury was reported in the vicinity of the southern end of footpath 121\_95.

Whilst the Applicant sees potential merit in the creation of a new footpath west of the proposed bridge as indicated by the Interested Party, footpath 121\_95 south of the A12 serves an area of Maldon Road with a number of premises and residences.

The suggested route west of the bridge would ultimately connect to a section of Maldon Road remote from any built-up area, and no clear onward facility, with the accident record of Maldon Road the junction of Howbridge Hall road and Maldon Road in the last five years, up to June 2021 indicating one crash where severe injury occurred, holistically that route would not be considered by the Applicant to provide enhancement to the existing local Public Right of Way network.

**REP2-062-005**

### **Sub-Question**

Finally, the plans include providing a footpath linking the pavements of Gershwin Boulevard to the bridge. This would link to Olivers Drive adjacent to number 28, and then require concrete footpaths across the existing greensward to link with the bridge. This would provide a reduction in both the security and privacy of houses from even numbers 14 to 28 of Olivers Drive. IF - and it is a huge "IF", the location of the proposed bridge cannot be changed, then the existing footpath from Gershwin Boulevard, crossing the other part of Howbridge Hall Road, and linking to Kinloch chase provides an adequate route to access the bridge, which would require shorter (and thus less damaging) footpath to access the bridge.

**Applicant's Response**

The proposed footpath links the existing footpath along Gershwin Boulevard to the proposed shared use bridge. The existing footpath on Gershwin Boulevard is on an important local road that connects effectively to the wider network. The proposed connection provides direct, off-road access to the new bridge, that does not require users to navigate through local streets.

**REP2-062-006**

**Sub-Question**

It should be noted that the link from Gershwin Boulevard to Olivers Drive was previously proposed as part of the Gershwin Boulevard development and was removed from the plans following local representations in around 2002.

**Applicant's Response**

As part of the improvement works, the proposed scheme is designed to exclude pedestrians from the A12 between junctions 21 and 25. There is an existing public right of way (PRoW Witham 95) which approaches the A12 in the vicinity of the proposed Gershwin Boulevard Bridge and then continues to Olivers Drive; this arrangement is shown on the Streets, Rights of Way and Access Plans [AS-027 and AS-028]. This proposed bridge connects these existing public rights of way as it would no longer be possible to cross the A12 at grade here once the proposed scheme is complete and an alternative, safe crossing must be provided. The proposed scheme is designed to minimise any diversion created by this alternative right of way and provides a route to Gershwin Boulevard as well as Olivers Drive.

**CMS LLP on behalf of Legal & General Investment Management Limited**

**REP2-064-001**

**Sub-Question**

1. INTRODUCTION 1.1 Legal & General Investment Management (“L&G”) is an Interested Party (reference 20033134) for the purpose of the Examination of the A12 Chelmsford to A120 Widening Scheme (the “DCO”). 1.2 L&G is the freehold owner of Eastways Industrial Estate, Witham CM8 3YQ (title number EX485441) (the “Estate”), which is located in close vicinity of the Project works to Junction 22. 1.3 L&G is making this written representation in respect of the application for the DCO in order to protect its land interests located within the DCO limits. CMS Cameron McKenna Nabarro Olswang LLP is acting on L&G’s behalf.

**Applicant’s Response**

The Applicant notes the Interested Party’s comments.

**REP2-064-002**

**Sub-Question**

2. COMPULSORY ACQUISITION 2.1 The Promoter’s Book of Reference [TR010060/APP/4.3] identifies that the Promoter is proposing both permanent acquisition (plot references 10/12a and 10/12b) and temporary use of land (plot references 10/12c, 10/12d and 10/12 e) and rights within the Estate. The Promoter is also carrying out works on land which is immediately adjacent to the Estate and these works will have an impact on the use of the Estate. 2.2 Plots 10/12a and 10/12b 2.3 L&G has been advised by the Promoter that the permanent acquisition of these plots is required to allow for the widening of the existing footpath to a 3m wide combined footway and cycleway. 2.4 L&G does not object in principle to this acquisition but requires the following concerns to be addressed: 2.4.1 the Promoter has explained that these proposals are subject to detailed design, so L&G reserves the right to make further representations if the detailed design results in a change of approach; 2.4.2 access to the Estate must be maintained and must not be affected by the acquisition; 2.4.3 the fence-line of the Estate must be maintained or replaced by the Promoter; 2.4.4 the impact on the Estate caused by the works must be managed and minimised by the Promoter; 2.4.5 damage caused to the Estate by the works must be rectified and compensated; and 2.4.6 L&G must be appropriately compensated for the acquisition. 2.5 Plots

10/12c, 10/12d and 10/12e 2.6 L&G has been advised by the Promoter that the temporary acquisition of these plots is required the entire construction phase of the DCO. This will have a significant, long-term impact upon the use and operation of the Estate as it will result in a temporary loss of car parking spaces, which are leased by L&G's tenants who occupy the Estate. This will therefore result in a disruption to L&G's business. 2.7 L&G requests that the Promoter explores alternatives which do not have such a disproportionate impact upon L&G's business operations. to facilitate the works on Eastways and that this temporary use will continue for the duration of

### **Applicant's Response**

#### 2.3

The Applicant confirms the acquisition of these plots is for the widening of the existing footpath to a 3m wide combined footway and cycleway and associated works.

#### 2.4.1

The Applicant will continue to engage with the Interested Party and keep them updated as the detailed design progresses.

#### 2.4.2

The Applicant would endeavour to maintain access to the Estate at all times. However, certain works on the adjoining carriageway may necessitate the temporary closure of the highway to ensure the safety of the public and workforce which may affect vehicular access into the Estate. These works would be kept to a minimum and would be timed, in consultation with the tenants of the interested party so as to minimise disruption to their businesses.

#### 2.4.3

The Applicant would aim to maintain the boundary fence, however, if required a suitable replacement would be provided.

#### 2.4.4

The Applicant would endeavour to manage and mitigate any potential impacts on the estate. Where disruptive works would be undertaken advanced notice would be given. This is detailed in 3.1 of the Outline Construction Traffic Management Plan (OCTMP)



[REP2-003]. The Applicant will work with the tenants of the Interested Party to minimise any potential disruption to their businesses.

#### 2.4.5

The Applicant would undertake pre and post condition surveys of all plots. Any identified damage caused by the works would be rectified before the land is handed back to the Interested Party.

#### 2.6

The Applicant does not foresee the temporary land take being required for the duration of the project and is developing the detailed design to confirm the programme. The Applicant will work to minimise the duration of the works on the temporary land and will continue to liaise with the Interested Party on this issue.

As per the previous response RR-035-002 and the site meeting carried out on 27/01/2023, a phased approach would be taken to limit the number of parking spaces that would be occupied at a time.

#### 2.7

The Applicant maintains that the temporary acquisition of plots 10/12c, 10/12d and 10/12e is the only viable option for the delivery of works to widen the footpath. This would require the reprofiling of the verges up to the car park kerb line, which could not be safely undertaken whilst maintaining the operational use of the parking bays.

**REP2-064-003**

#### **Sub-Question**

3. NEIGHBOURING CONSTRUCTION IMPACTS 3.1 The Promotor is carrying out works on the Eastways public highway which abuts the Estate. The works are not within the Estate but they will have an impact on the access to and use of the Estate, including noise and disturbance, which must be appropriately managed.

#### **Applicant's Response**

The Applicant would maintain access as far as reasonably practicable to Eastways, however, as previously stated there may be situations where closure of the adjoining highway may be required.

Such works would be kept to an absolute minimum to reduce disruption to the businesses.

The Applicant would communicate these as early as possible with the Interested Party and works would be timed to minimise disruption. Section 3.1 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] provides further detail.

Standard mitigation measures would be put in place to reduce or remove the impacts from construction noise. These are described within paragraph 12.10.11 of Chapter 12: Noise and vibration, of the Environmental Statement [APP-079]

**REP2-064-004**

### **Sub-Question**

4. ENGAGEMENT WITH THE PROMOTER 4.1 L&G and the Promoter are actively discussing the proposals and how the impact on the Estate can be mitigated and managed. L&G reserves the right to make further representations to the Examining Authority depending on the progress of these discussions. 4.2 L&G intends to attend the Compulsory Acquisition Hearings on 1 and 3 March (if required), as indicated in its Deadline 1 and Procedural Deadline A submissions and will update the Examining Authority on the progress of those discussions.

### **Applicant's Response**

The Applicant recognises the intent of the Interested Party to continue engaging and acknowledges that the Interested Party will be attending the Compulsory Acquisition hearings and looks forward to further discussion on the points raised.

**Little Braxted Parish Council**

**REP2-065-001**

**Sub-Question**

Submission ID: 13707

Representation to A12ChelmsfordA120 Examination And a Request to Speak at Future OFH's Little Braxted Parish Council in principle understands and supports the proposed development. In doing so however it is on the basis that the following pre-requisites are delivered as part of the overall scheme:- a) The Witham North junction (junction 22) is constructed as per the submitted plans b) Permanent, physical width restrictions are put in place immediately either side of the weight-restricted bridge over the River Blackwater on Little Braxted Lane, Rivenhall (which becomes Witham Road, Little Braxted) to prevent unauthorised access by hgv's Junction 22 The submitted plans for junction 22 include two key features important to Little Braxted and wider community:- a) An exit to Little Braxted Lane, Rivenhall; and

**Applicant's Response**

The Applicant notes the comments made by the Interested Party.

The Applicant has continued to meet with the Interested Party throughout the development of the proposed scheme, last meeting in October 2022, and looks forward to continued engagement.

The Applicant is aware, from both the Statutory and Supplementary Consultation responses and the previously mentioned engagement, of the importance to the Parish of retaining access of junction 22. The proposed scheme includes an exit to the realigned Little Braxted Lane from the junction 22 southern roundabout, and the Applicant welcomes the support from the Interested Party regarding this connection. As the detailed design of the junction is developed, the details of the design shown on the General Arrangement plans [AS-011] submitted as part of the DCO application will be refined, however the fundamental arrangement of the junction, including the connection to Little Braxted Lane, will remain as shown.

The Applicant's response to the comment regarding the weight restricted bridge can be found in REP2-065-002 below.

**REP2-065-002**

**Sub-Question**

b) A new footway and cycleway over the A12 linking Witham Road, Rivenhall with Colchester Road, Witham Whilst Little Braxted Lane, Rivenhall (which I note the Inspectors have not viewed) may seem to be a minor country lane, it serves one of the largest employment sites in the north of the Maldon District, immediately across the river at Little Braxted Hall, and the important link to the A12 (and Witham) is important for the near 200 employees commuting to the international businesses on that site. The Lane also lead to the acclaimed Braxted Bakery and the village of Little Braxted itself. And, whilst we accept that there will be an increase in vehicular traffic arising from planned development in the Heybridge/Maldon area, we believe it is vitally important to keep the link to the A12 at junction 22. Little Braxted Lane, Rivenhall (which becomes Witham Road, Little Braxted over the river) also forms part of the National Cycle Route 1, hence the need to ensure that the footbridge and cycleway over the A12 linking it with Colchester Road, Witham is constructed. The Braxted Bakery on Witham Road, Little Braxted is a key destination for cycle clubs and individual cyclists. The 3-ton Weight Restricted Bridge over the River Blackwater Whilst commuter and local traffic can safely use Little Braxted Lane and the weight-restricted bridge, there is a history of unauthorised use by hgv's, often resulting in physical damage to the bridge. These occur most frequently when there is disruption to the A12 as drivers attempt to find an alternative route, despite the County Highway's official signage warning of the weight restriction and the Parish Council's own (unofficial) signage reinforcing the lack of through access for hgv's. Often hgv's reach the bridge only then to find that they have to reverse some distance to be able to retrace their route, whether back to A12 or back to Kelvedon Road, Little Braxted. Because of the need for ongoing hgv access to the (rerouted) gas main, the fisheries and the willow plantation on the Rivenhall side of the river any physical width restriction can only be placed immediately on the bridge approach. Similarly with the need to maintain access to the Mill House on the Little Braxted side of the bridge. Already, as part of the works associated with the re-routing of the gas main, the bridge has been crossed by an over-weight hgv, despite the driver having passed three County Highway's warning signs and two Parish Council signs. Each time the bridge is damaged the road is closed for repairs to take place; the last such closure took six weeks before re-opening.

**Applicant's Response**

The Applicant welcomes the support from the Interested Party regarding the connection of Little Braxted Lane to the proposed new junction 22 and the construction of the new Little Braxted Bridge to provide walking and cycling access between Little Braxted Lane and Colchester Road.

Regarding the weight restricted bridge over the River Blackwater, the Applicant is proposing to replicate the existing signage at junction 22 and on Little Braxted Lane to warn HGVs of the weight restrictions on the bridge. The Applicant is aware that Essex County Council is investigating an alternative route for traffic to access Little Braxted, however this route has not yet been confirmed. Once Essex County Council defines this route, the Applicant will consider the need for appropriate signage required at junction 22.

## Lynfield Properties Ltd

REP2-066-001

### Sub-Question

Lynfield Properties Ltd “ Landlord to: Co-Op PFS, Balgores Bodyshop, Regatta Garden Furniture and Robinsons Recycling at the gateway to Witham, CM8 1ED. Although in essence we in principal support the A12 widening scheme, we are very concerned at the detail regarding potential adverse effects to the site and temporary disturbance.

### Applicant’s Response

The Applicant notes the Interested Party’s comments.

REP2-066-002

### Sub-Question

It is vital that access to our site is maintained for our tenants and their customers throughout the construction of the scheme.

We look to understand how the advance warning signs for our site will be facilitated on the new A12.

### **Applicant's Response**

The Applicant would maintain access as far as is reasonably practicable, however, there could be activities such as installing proposed utilities crossings the existing accesses that may impact on access. The requirement for these crossings is dependent on the ongoing detailed design. If a crossing is required then the Applicant would liaise with the Interested Party to minimise any disruption, if required a diversion would be put in place. The Applicant notes that the Interested Party has 2 access points on the B1389 and would maintain at least one of these during any works.

The Applicant has detailed in paragraph 3.1.3 of the Outline Construction Traffic Management Plan Rev 02(OCTMP) [REP2-003]. "Diversion routes and closures will be confirmed and publicised as early as possible (within a minimum of 5 working days). However, it should be noted for more significant closures, such as the closure of Station Road, increased notification will be given, and in many cases, this will be accompanied by a communications strategy to ensure stakeholders are appropriately informed with sufficient time to make suitable plans".

The signing proposed for during and post construction will mimic the existing signing at junction 21. The existing signing does not provide directional signing from the A12 mainline to the land owned by the Interested Party, and for this reason there is no proposed signage to be provided.

During construction if deemed appropriate temporary signage would be installed to indicate businesses are open as usual.

The Interested Party would have the opportunity to attend the Local Business and Strategic Road User Forum as detailed in Table 3.1 of the OCTMP [REP2-003].

**REP2-066-003**

### **Sub-Question**

We provide important strategic roadside amenities for the motorist to take a break, to eat and drink and use the toilet facilities. Thereby providing facilities for welfare and safety for the motorist under the provisions of Circular 02/2013 Government Policy.

Our issue is that we will be taken "offline" due the blocking up of the slip road exit, removing the A12 exit facility for our HGV customers north bound.

We have held discussions with National Highways, and we look forward to further meetings to discuss how we can resolve the issues created by the scheme.

We reserve the right to make further representations in relation to the scheme.

### **Applicant's Response**

As noted in response to the Interested Party's submission [REP1-036] in the Applicant's Comments on Information Received at Deadline 1 [REP2-030], the A12 is proposed to be widened to three lanes in each direction in this area and reinstating the slip road from the petrol station would require significant realignment of the slip road to tie into the new A12 configuration. This would also require increased land take to facilitate this work.

The Applicant understands the importance of these facilities and acknowledges the function they provide to users of the strategic network. The availability of existing services at junction 19 and junction 26 complies with paragraphs 77 and 78 of Circular 02/2013 and will continue to be compliant both during construction and operation of the proposed scheme.

The petrol station would be accessible from the traffic heading northbound and southbound from the proposed new junction 21.

The Applicant will continue to engage with the Interested Party as the design develops.

**Mr Mark David Cathcart**

**REP2-069-001**

### **Sub-Question**

1. COVERING LETTER AND SUMMARY Mr Adrian Hunter Lead Member of the Examining Authority National Infrastructure Planning Temple Quay House 2 The Square Bristol BS1 6PN Mr and Mrs Cathcart Your ref: PINS ref TR010060 Our ref: Interested Party number 20033024 Report served via portal and nature films served via email: A12chelmsfordA120@planninginspectorate.gov.uk Dear Sirs Submission to the Planning Inspectorate in respect of the proposed Cadent gas pipeline diversion near Witham (TR010060 A12 Chelmsford to A120 Widening Scheme – Gas Pipeline Diversion) Procedural Deadline 2 – Written Representation – 13 February 2023 We write to expand the comments we made in our Relevant Representation. Summary We strongly object to diversion routes 2, 4 and 5 on ecological grounds. We consider routes 1 or 3 to be considerably less environmentally damaging. We note that, compared to routes 1 and 3, the currently proposed route corridor 4 would create significant additional adverse impacts in the following Highways key policy areas of: protecting the river environment; protecting the landscape and rare habitats of the Blackwater valley, including deciduous woodlands, reedbeds, hedgerows and wet woodland; and protecting the area's valuable and endangered wildlife, notably otters, water voles, bats and red kites. We do not wish any part of our land to be compulsorily purchased. 3 This report details our specific concerns about the environmental impact of the currently proposed diversion route 4 on the Blue Mills nature reserve and adjoining strip of ancient woodland, and the impact on the amenity value of the Ishams Chase footpath. We highlight how the current proposal was not informed by any survey data. We also lay out the least damaging path for the pipeline, were the current routing to be upheld. Objections to the proposed route have also been made by Maldon District Council, Wickham Bishops Parish Council, the Essex Wildlife Trust, along with members of the local community who enjoy the footpath. Yours sincerely, Mark Cathcart MA(Cantab) Anne Cathcart-Taylor BA(Hons), FCA 13 February 2023 Uploaded files 1. Nature-cam footage of the otter next to his holt (duration - 26 seconds). 2. Nature-cam footage of a water vole in the reed-beds (duration - 15 seconds). 3. Film clip showing the height, girth and majesty of the veteran poplar on 'otter island' (duration – 14 seconds).

### **Applicant's Response**

The Applicant acknowledges the summary of points raised by the Interested Party and has responded to each point in the Interested Party's Written Representation in responses to REP2-069-002 to REP2-069-013 below.



REP2-069-002

**Sub-Question**

2. A DESCRIPTION OF THE BLUE MILLS NATURE RESERVE AND ENVIRONMENTAL ASSETS The Blue Mills nature reserve The nature reserve contains a number of priority habitats such as reedbed and wet woodland, rivers and ponds, adjoins ancient woodland and contains a large number of trees including a significant number which would be classed as rare, ancient, historic, veteran and/or notable. Wet woodland is one of the most dynamic natural habitats in the UK and is almost extinct in lowland Britain and inland reedbeds are becoming increasingly rare and isolated. Development of the reserve The 5-6 acre site has been developed as a nature reserve by the current owners during the entirety of their 22- year tenure. Previously installed drainage ditches were allowed to silt up and former reed-beds re-established themselves over a 5-year period. In 2001, a several acre native woodland was planted to complement the adjoining strip of mature woodland and to provide additional riverside food and shelter for birdlife. Moisture loving trees such as specialist species of willows and two swamp cypress were planted along with a number of native trees. In addition to rewilding the area of the reserve, the entire 11 acre Blue Mills gardens were managed sympathetically for wildlife, with the riverside vegetation being left to nature and the planting of new trees and hedgerows. Before long, the Environment Agency confirmed the presence of otters. Water voles began frequenting the river and water-filled former drainage ditches, moving downstream from the Witham River Walk colony. Small mammals, songbirds and associated raptors colonized the area, including Red Kites who nested in the tallest oak trees of the adjoining woodland. The site became a breeding site for slowworms. As the riverside mosaic habitat at Blue Mills is attractive to numerous species of bat, pipistrelle (likely soprano pipistrelle given the proximity of water) and brown long eared bats roost in Blue Mill's outbuildings and are commonly seen hunting along the entire length of the river corridor, from the house to the far end of the nature reserve. Blue Mills veteran trees including its rare female Black Poplars The majority of the veteran trees on the reserve lie on the north eastern boundary adjoining the neighboring strip of mature woodland. They are the doomsday listed Blue Mills ancient tree and ditch property boundary and they run the entire length of the nature reserve. This tree/ditchline also coincides with the edge of the floodplain. Of the remaining mature trees on the reserve, of particular note are two ancient, veteran female Black Poplars (*populus nigra betulifolia*), an Essex Red Data List species. Also known as the 'native poplar' or 'water poplar' Black Poplars are the most endangered native timber tree in Britain. The female

is the rarest, with only around 600 remaining in the UK. Around 35 years ago, the Black Poplar sited by the river at the northernmost part of the Blue Mills nature reserve was sampled by renowned botanist Ken Adams and microsatellite DNA fingerprinted at Forest Research (Edinburgh), identifying it as female clone 32. There are only around 4-5 ancient trees of this clone surviving in North Essex. Two are at Blue Mills, the second being sited at the other end of the nature reserve, on the eastern boundary. The Local Wildlife Site citation for Blue Mills nature reserve states: 'Both of the veteran Black Poplar are females of significant age and size, and are likely to be two of the largest examples of this increasingly rare species in Essex.' Of particular additional note is the huge poplar on 'otter island', which is the tallest tree in the area, and visible from some considerable distance, including along the A12. We have uploaded a short film clip of this tree to illustrate its size. The otter holt An otter holt has been confirmed in the riverside Black Poplar to the North of the reserve. The Local Wildlife Site citation states: 'Otters, fully protected under UK and European wildlife law, have been regularly recorded and an active bankside otter holt has been confirmed within the site, accompanied by trails, prints and fresh spraints.' Awards and protection orders In 2004, the Blue Mills nature reserve was awarded a Highly Commended in the Maldon District Conservation and Design Awards. It states: 'The judges were impressed by the restoration of this natural English environment attracting natural species and wildlife to the area and allowing the fishing stock to increase by preventing fishing.' The area of the reserve and adjoining woodland was awarded an area Tree Preservation Order in July 2022 by Maldon District Council (TPO MSA number 100018588). The Blue Mills nature reserve was again recognized as being of substantive nature conservation interest when it was awarded a citation to be designated as a Local Wildlife Site by the Essex Wildlife Trust during a review commissioned by Maldon District Council in November 2022. The qualifying selection criteria are as follows: HC18 Rivers HC28 Small Component Mosaics SC1 Vascular Plants SC11 Otter holt Collaboration with other nature bodies The owners have hosted a number of visits over the years from members of the Essex Wildlife Trust and collaborated with them on two projects – water DNA sampling to detect the presence of otters, and their recent River Connectivity project which seeks to reduce barriers along Essex rivers to enable fish cross breeding and stock replenishment along as much of our county's river network as possible. We have also recently collaborated with the Otter Trust - Earsham Wetland Centre & Dickleburgh Moor nature reserve by allowing them to take additional truncheons from our two veteran trees to add to the clone bank for Essex. They are planning to eventually plant trees propagated from our clone 32 females at Whetmead nature reserve, Brockwell Meadows, Bocking Blackwater, Abberton reservoir and Springfield Hall Park, Chelmsford.

## Applicant's Response

The Applicant notes the information provided by the Interested Party.

The Interested Party refers to the Blue Mills nature reserve. Maldon District Council has provided a citation for the Blue Mills Local Wildlife Site (LWS) which includes a map of the site boundary (please note the designation proposed is a Local Wildlife Site as opposed to a 'nature reserve'). The council has advised its designation is an ongoing procedure with the Essex Local Nature Partnership Board who is responsible for the confirmation of the designation. The council does not have a date for when the Board will sit to consider the proposed designation. However, in the interim, the Applicant will treat the proposed site as if it were a confirmed LWS.

The Applicant acknowledges the presence of wet woodland and lowland mixed deciduous woodland within the Order Limits at Blue Mills LWS. However, the other habitats identified by the Interested Party either: do not qualify as priority habitats when assessed against the criteria defined in the UK Biodiversity Action Plan Priority Habitat Descriptions (2011); or are outside the Order Limits. Specifically, the River Blackwater does not meet one of the seven criteria for priority habitat and the reedbeds are located outside of the Order Limits.

In addition, commitment LV15 of the Register of Environmental Actions and Commitments (REAC) within the first iteration Environmental Management Plan [APP-185], states that all main river crossing(s) for the gas main diversion would be installed using trenchless techniques, such as horizontal drilling. This commitment would ensure there are no impacts to the River Blackwater. This commitment would also ensure no impacts to the millrace, millpond, leat, streams and ditch which the Applicant understands are situated outside of the Order Limits.

The Interested Party refers to ancient woodland. Ancient woodland is defined by the Woodland Trust as areas of woodland that have persisted since 1600 AD in England. No ancient woodland is recorded on the Ancient Woodland Inventory for this location. There is also no mention of ancient woodland within the citation for Blue Mills LWS, nor have Essex Wildlife Trust raised ancient woodland as a concern within their response to the statutory consultation. 'A Map of the County of Essex' (Chapman and Andre, 1777) does not show any woodland within the gas diversion corridor, which suggests the woodland at Blue Mills has not been continuous since 1600 AD and therefore would not qualify as ancient woodland, albeit it does show other woodlands such as

### Chantry Wood to the east.

The Applicant has now completed an arboricultural survey of Blue Mills. The report will be submitted to the examination for Deadline 3. The survey confirmed that the mature black poplar within the Order Limits qualifies as a potential veteran tree and as such would be assessed as a Nationally important receptor in accordance with DMRB LA 108 (note this supersedes the assessment of the trees as being of County value based on the rarity of the black poplar as stated in the response to Examiners' Questions reference ExQ1 7.0.3 [REP2-025]). The results of the arboricultural survey will be used to inform an appropriate control, whereby a combination of route and construction methodology would be designed to minimise the impacts on the black poplar and other sensitive ecological features in this area. The REAC will be updated at Deadline 4 accordingly.

The arboricultural survey confirmed the presence of a row of mature oaks which would be considered 'transitional veterans', i.e. the next generation of veteran trees, however as they do not currently meet the criteria for veteran status they are not assessed as such. The commitments outlined above would apply to these trees in order to minimise the effects of the gas main diversion.

No evidence of water vole was recorded during the survey, and discussions from the site meeting with the landowner in July 2022 indicated that water vole were previously observed upstream but have not been seen recently. Video evidence of water vole recorded by the Interested Party has been analysed by technical experts at Jacobs and determined to show bank or field vole (not discernible due to video quality but definitively not water vole due to size, tail length and general appearance). Water vole were not recorded in other sections of the River Blackwater or within the River Brain, which converges with the River Blackwater in this part of the proposed scheme (Appendix 9.10: Riparian Mammal Survey Report [APP-134]). Furthermore, an American mink was recorded on wildlife cameras deployed on the landowner's land as part of the surveys undertaken, and these predate water vole and may have reduced or eliminated the local population. Water vole are considered to be likely absent from the area surveyed, although preconstruction surveys for water vole would be undertaken to ensure this has not changed, as committed to under mitigation BI11 in the REAC [APP-185].

The Applicant notes the descriptions of other flora and fauna provided by the Interested Party. The Applicant affirms that ecological surveys were undertaken in 2022 by independent professional ecologists (Jacobs), working under the Costain-Jacobs Partnership on behalf of National Highways and that this survey effort was in line with current best practice guidelines. Additionally, preconstruction surveys will be undertaken as committed to under mitigation BI11 in the REAC [APP-185].

REP2-069-003

**Sub-Question**

3. THE CHOICE OF ROUTE PUT FORWARD TO THE PLANNING INSPECTORATE WAS NOT AN INFORMED CHOICE The detailed pipeline diversion planning appears to have been a rushed, desk top exercise based on incomplete environmental survey data, with changes to one of the originally proposed routes being made at the very last minute, a week or so prior to the consultation starting on 9 November 2021. Section A3.7 of the Supplementary Consultation: Environmental Report admits this when it states that 'Ecology and tree surveys (including the identification of potential veteran trees), have not been carried out for the full extent of the area that would potentially be affected by the corridors. (We note that this belies the other statement included in the supplementary consultation brochure that the routes put forward 'are designed to reduce impacts on properties, businesses and ecologically sensitive areas'.) We consider that consequently the detailed environmental assessment included in that report to have been incomplete, inaccurate and misleading and we examine this in detail in Appendix A. Significantly for Blue Mills, when the Applicant submitted the DCO for approval by the Planning Inspectorate, no surveys had been carried out on their property. Wildlife surveys did not start until July 2022 and are still underway. Tree and habitat surveys have still not been carried despite the owners twice prompting Ardent via email to do so during the past 6 months. A tree survey is now planned to start w/c 13 February 2023. We also wish it to be noted that no response was received from Ardent when they were informed of the existence of European Protected Species, the area Tree Preservation Order, or the citation as a Local Wildlife Site. This information was given to them at the earliest opportunity. Nor does any account appear to have been taken of the site's environmental details contained in the comprehensive report we submitted to the November/December 2021 consultation.

**Applicant's Response**

The Supplementary Consultation Environmental Report (available from the National Highways website), was produced to document potential environmental effects from design changes that occurred after the proposed scheme's statutory consultation, including the gas main diversion. Appendix A of the Environmental Report presented a preliminary assessment of the five potential gas main diversion corridors. As stated in paragraphs A.3.3 and A.3.4 of the Environmental Report, the appendix was 'prepared at an interim

stage of the preliminary design process' and therefore represented a 'snap-shot in time' of the environmental assessment process, with the detailed results of the assessment being presented in the Environmental Statement for the proposed scheme.

The following information was obtained in advance of DCO submission and was included within Section 9.8 of Chapter 9: Biodiversity [APP-076]:

- Phase 1 Habitat Survey data - due to a 600m buffer (to allow for flexibility in the evolving design) being used for the Phase 1 Habitat surveys which were undertaken from 2016 to 2020, Phase 1 Habitat survey data were available for the entire route of the gas main diversion (with the exception of a small segment of habitat which is clearly identifiable as broadleaved woodland from aerial photographs) from the original suite of surveys (Appendix 9.8: Phase 1 Habitat Survey Report [APP-132]).
- Partial riparian mammal data - surveys undertaken in 2020 included the most northerly crossing of the River Blackwater by the gas main diversion. Results are included within Appendix 9.10: Riparian Mammal Survey Report [APP-134].
- Partial badger and ground-based bat roost assessment data - the majority of the gas main diversion to the east of the River Blackwater is divided into three land holdings. Where access was permitted for two of the three land parcels, badger surveys and ground-based bat roosts assessments were undertaken in the winter of 2021 and these data were included in Appendix 9.4: Bat Survey Report [APP-128] and Appendix 9.2: Badger Survey Report [APP-126]. Access for the remaining land parcel was permitted in July 2022, at which time the ground-based bat roost assessments and badger surveys were completed.

Where surveys could not be completed until after submission of the DCO application, they were undertaken within the earliest available survey window where access permitted.

Ecological surveys were undertaken in 2022 by independent professional ecologists (Jacobs), working under the Costain-Jacobs Partnership on behalf of National Highways. Surveys covered botany, badger, bat, dormouse, reptile and riparian mammal surveys. The botany survey categorised the habitats within the site using UK Habitats (UKHabs) Survey Classification methodology which provides sufficient detail to identify priority habitat types.

An arboricultural survey was completed for Blue Mills in February 2023. Further information is provided in the response to sub-question REP2-069-005.

The following supplementary survey reports have been submitted to the Planning Inspectorate and are available via the

examination library:

- Supplementary Bat Survey Report [AS-032]
- Dormouse Survey Report [AS-036]
- Supplementary Botanical Survey Report [REP2-027]
- Supplementary Badger Survey Report (note that the badger report is marked as 'confidential' due to the sensitive nature of the information regarding sett locations) [REP2-026]
- Supplementary Reptile Survey Report (Blue Mills) [REP2-028]
- Supplementary Riparian Mammal Survey Report [REP2-029]

A detailed response in relation to surveys undertaken for the gas main diversion, as well as potential impacts and mitigation measures related to the works, has been provided in response to the Examining Authority's written question ExQ1 7.0.3 [REP2-025]. In summary:

- No evidence of dormice was recorded during the survey, and dormouse are considered to be likely absent from the area surveyed. This would result in a reduction in the assessment of effects on dormice from 'slight adverse' during construction and 'neutral' during operation to 'no effects', as there is no impact pathway.
- 13 trees with bat roost potential were identified, of which 11 are within the Order Limits. However, further climbing and dusk emergence / dawn re-entry surveys did not identify any bat roosts. This means there is no change to the conclusions of Chapter 9: Biodiversity of the Environmental Statement [APP-076], nor is there a requirement to amend mitigation proposals with respect to roosting bats.
- The botanical survey identified the area of wet woodland and female black poplar within the Order Limits (a second female black poplar is located to the south, outside the survey area and Order Limits). Without mitigation there would be a potential significant adverse effect with respect to the black poplar. However, mitigation measures to avoid impacts on the poplar tree through micro-siting of the pipeline route and the adoption of a trenchless crossing of the Blackwater River (see commitment LV15 in the Register of Environmental Actions and Commitments (REAC) [APP-185]) would reduce the impact to slight adverse (not significant). An arboriculture survey has been undertaken and the results are being used to inform an appropriate control, whereby a combination of route and construction methodology

would be designed to minimise the impacts on the black poplar and other sensitive ecological features in this area. The REAC will be updated at Deadline 4 accordingly.

- No new badger setts were recorded, although there was evidence of badgers using the woodland to the east of the River Blackwater where the gas main diversion crosses the River Blackwater at the more southerly point. As there are no new setts, there is no change to the assessment within Chapter 9 [APP-076].
- Low populations of slow worms and common lizards were recorded during surveys of Blue Mills, although it is acknowledged that the abundance of natural refugia may have led to an under recording of the population size. The results are consistent with other areas of the proposed scheme where low to moderate populations of these species were recorded. There is no change to the proposed mitigation or assessment of effects within Chapter 9 [APP-076].
- No evidence of water vole was identified, and water vole are therefore assessed to be likely absent from the area surveyed. There is no change to the assessment in Chapter 9 [APP-076].
- Signs of otter activity were recorded within the survey area along the River Blackwater, including a potential holt, confirmed sprainting site, a potential couch, a potential slide, feeding signs and camera trap sightings. Evidence from Essex Wildlife Trust also suggests the black poplar is a potential holt. Depending on the alignment of the gas main diversion, there is potential for impacts to otters if using the potential holt at the time of construction. The potential couch is more than 95m from the Order Limits and so effects are unlikely. Through implementing existing mitigation commitments in the REAC (BI4, BI9, BI34) [APP-185], there would be no change to the assessment within Chapter 9 [APP-076].

Further information on impacts to protected species is provided in the Applicants response to REP2-069-006 to REP2-069-008.

In relation to the timing of the surveys undertaken, after the introduction of the gas main diversion into the proposed scheme in late 2021, as presented in the Supplementary Consultation of November 2021, seasonal and access constraints meant it was not possible to undertake the majority of the survey work until 2022 (as described in paragraphs 9.6.4 – 9.6.7 of Chapter 9: Biodiversity, of the Environmental Statement [APP-076]). Therefore, surveys could not be completed until after submission of the DCO application. For the purposes of informing the assessment of potential impacts on biodiversity, a desk study was undertaken to identify the likelihood of habitats and/or species to be present and affected by the proposed gas main diversion (see paragraph 9.8.1 of Chapter 9: Biodiversity [APP-076] for details of baseline sources consulted).



The absence of survey data for the route of the gas main diversion was noted as a limitation in the biodiversity assessment, but as explained in paragraphs 9.6.4 to 9.6.7 in Chapter 9: Biodiversity [APP-076], the survey data were not seen as a significant constraint to the assessment. This is because impacts could potentially be avoided (given the wide limits of deviation set for the gas main diversion), and where this was not possible, survey data would be used to refine mitigation proposals (within the existing Order Limits) at the detailed design stage.

All information provided by the Interested Party has been considered but has needed to be verified through site surveys (which were undertaken in 2022, as described above). The supplementary survey reports submitted to the examination reflect the current baseline knowledge.

The Applicant has responded to Appendix A of the Interested Party's report in its response to REP2-069-012.

**REP2-069-004**

### **Sub-Question**

4. THE ADVISABILITY OF ROUTES 1 AND 3 INSTEAD OF THE PROPOSED ROUTE 4 The adverse impacts of route 4 are unnecessary as routes 1 and 3 provide a less damaging, satisfactory alternative. We consider there to be a huge increase in ecological impact if diversion route 4 is adopted, a diversion which, in order to avoid a brownfield site, cuts a 20-30 metre wide strip of destruction through an area of fertile alluvial, wildlife-rich, greenfield land in the picturesque Blackwater valley and endangers the river environment and the animals which depend on it. We believe that much of this impact will be permanent. We are concerned that diversions away from the A12 may be being sought to avoid the expense of the technical and health & safety accommodations which would be required in order to move the gas pipeline onto the borders of an old landfill site (Whetmead), as would be necessary if routes 1 and 3 were chosen. We believe that diversion routes 1 and 3 are preferable from an environmental perspective because:

- An incursion onto the edge of the landfill site will be required in any case for the A12 road works, and we believe that the minor additional width for the gas pipeline would cause minimal incremental environmental effects.
- As routes 1 and 3 follow the A12, this would obviate the need for landscape destruction along such a wide access corridor, because the A12 roadway could serve as an access for the works.
- The impact of routes 1 and 3 on the river ecosystem is insignificant when

compared with that of the currently proposed route. Routes 1 and 3 would still follow the existing crossing of the river Brain at the same point as the A12. However, the currently proposed diversion route 4 also crosses the river Blackwater as it borders/flows through the Blue Mills nature reserve, and it follows the river for an additional distance of one or two miles as diverts around two sides of the Whetmead triangle. The choice of the current route in preference to routes 1 or 3 clearly does not adhere to the professed aims of Cadent's Environmental and Social Governance policies.

### **Applicant's Response**

The options for the diversion of Cadent's asset have been considered carefully by the Applicant. The design evolution has taken into consideration the potential impacts on landscape, biodiversity and heritage as part of the optioneering.

The Applicant has engaged with Cadent to develop the preliminary design study for the gas main diversion.

The decision for the selection of the route was made upon a variety of factors including engineering, ground contamination, environmental impacts and assessment of construction impacts.

An options appraisal of the five potential gas main corridors is presented in Table 3.5 of Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070]. In addition, an Environmental Report was published for the Supplementary Consultation which summarised the potential impacts for each gas main diversion corridor. In the absence of the full survey data, desk study information was used to identify the likelihood of habitats and/or species to be present and affected by each gas main diversion corridor. This report is available from the National Highways website.

Key constraints and impacts of relevance to Blue Mills Hill (which are similar for both Corridor 2 and Corridor 4) included likely impacts to areas of lowland mixed deciduous woodland (a priority habitat) south of Blue Mills Hill, as well as potential impacts to ecological receptors previously identified in this area, including common reptiles, breeding birds, bats, badger and species of principal importance. The report states the requirement for ecology surveys for badgers, bats and dormice, which were subsequently undertaken in 2022 (see response to REP2-069-003).

As per paragraph 3.3.11 of Chapter 3, Corridor 4 (the proposed gas main diversion corridor) was selected as the preferred option. Corridors 1 and 3 were discounted as they would involve diverting the gas main through the historical landfill at Whetmead which is

designated as not only a LWS but also as a Local Nature Reserve. There would likely be issues around safety during construction and long-term serviceability and/or maintenance of the asset associated with placing a new asset in the potentially contaminated ground.

Although Corridor 4 may result in loss of woodland where it crosses the River Blackwater, the route of the corridor has been altered since the supplementary consultation to avoid woodland on the east bank of the River Blackwater, therefore reducing tree loss. This option also avoids the landfill at Whetmead, and properties along Blue Mills Hill and Ishams Chase where there was potential for loss of trees and hedgerows which may have impacted the landscape character of these areas and potentially may have impacted the setting of listed buildings.

As detailed in the response to REP2-069-005, commitments in the Register of Environmental Actions and Commitments (REAC) [APP-185] would ensure there are no impacts to the River Blackwater.

The Applicant will continue to work with Cadent to refine the design of the gas main diversion within the Order Limits to avoid or reduce the impact on environmental features.

**REP2-069-005**

**Sub-Question**

5. THE ENVIRONMENTAL IMPACT OF THE CURRENTLY PROPOSED DIVERSION ROUTE 4 ON THE BLUE MILLS NATURE RESERVE  
 Impact on protected habitats and trees  
 The route would damage and destroy large areas of priority habitat. Habitats protected under section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 affected by the routes include: • Hedgerows • Rivers • Reedbed • Lowland mixed deciduous woodland • Wet woodland (on a floodplain and associated with a reedbed)  
 The water environment includes the River Blackwater, millrace, millpond and leat, streams, and a substantial ditch nestled in the reedbed. The route corridor crosses an unbroken belt of mature woodland containing veteran trees and also encompasses our riverside Black Poplar.

**Applicant's Response**

The Applicant acknowledges the presence of wet woodland and lowland mixed deciduous woodland within the Order Limits at Blue Mills. However, the other habitats identified by the Interested Party either: do not qualify as priority habitats when assessed against the criteria defined in the UK Biodiversity Action Plan Priority Habitat Descriptions (2011); or are outside the Order Limits. Specifically, the River Blackwater does not meet one of the seven criteria for priority habitat. There are no hedgerows within the Order Limits within the Interested Party's ownership, and the reedbeds are located outside of the Order Limits. In addition, commitment LV15 of the Register of Environmental Actions and Commitments (REAC) within the first interaction Environmental Management Plan [APP-185], which states that all main river crossing(s) for the gas main diversion would be installed using trenchless techniques, such as horizontal drilling, would ensure there are no impacts to the River Blackwater or any reedbed. This commitment would also ensure no impacts to the millrace, millpond, leat, streams and ditch which the Applicant understands are situated outside of the Order Limits.

Although there are hedgerows which qualify as priority habitat elsewhere in the Order Limits including the gas main diversion, impacts to them would be mitigated through implementation of the Environmental Masterplan [APP-086 to APP-088]. As per paragraph 9.11.88 of Chapter 9: Biodiversity of the Environmental Statement [APP-076], loss of hedgerows would be mitigated through the creation of 42.15km of new hedgerow, which once matured would qualify as BAP habitat. As per paragraph 9.11.89 of Chapter 9 [APP-076], for UK BAP hedgerows there would be a temporary moderate adverse level of impact on a Nationally important receptor while newly planted hedgerows mature, and therefore the significance of effect is moderate adverse in the short term. Once planting has matured, the level of impact would reduce to minor adverse, and so the residual significance of effect is slight adverse (not significant).

As shown on sheet 8 of 21 of the Retained and Removed Vegetation Plans – Part 1 [APP-035], vegetation loss would be restricted to a 30m corridor within the Order Limits for the gas main diversion. The width of the Order Limits in the woodland of concern is between 150m and 200m, and so the impacts on the woodland which comprises lowland mixed deciduous woodland and wet woodland would be approximately one fifth of the Order Limits (based on the narrowest measurement of 150m). As per commitment LV15 of the REAC [APP-185], the working width for the installation of the gas main diversion would be reduced as far as reasonably practicable through the woodland and where the gas main diversion crosses through hedgerow field boundaries. Commitment LV13 of the REAC [APP-185] also states that routes of final utility diversions and the gas main diversion and methods of construction will

be refined to retain as much existing vegetation as practicable, in particular mature vegetation and woodland.

As per commitment LV14 of the REAC [APP-185], loss of woodland habitats would be partly mitigated through replanting along the easement of the gas main diversion which would be carried out in accordance with the utility company's guidance and best practice standards. Where woodland vegetation is lost and trees cannot be replaced in situ due to the restrictions of utility easements, native shrub planting would be used in line with the relevant utility company's guidance.

The final route and design of the gas main diversion (within the Order Limits) is not known at this stage; however, the corridor has been defined with a sufficient width (i.e. the limits of deviation) to reduce impacts on properties, businesses and environmentally sensitive areas (including priority habitats and ecologically sensitive areas) where practicable and to allow flexibility for the route to be refined within the proposed corridor.

The Applicant has now completed an arboricultural survey of Blue Mills. The report will be submitted to the examination for Deadline 3. The survey confirmed that the mature black poplar within the Order Limits qualifies as a potential veteran tree and as such would be assessed as a Nationally important receptor in accordance with DMRB LA 108 (this supersedes the assessment of the trees as being of County value based on the rarity of the black poplar as stated in the response to Examiners' Questions reference ExQ1 7.0.3 [REP2-025]). The results of the arboricultural survey will be used to inform an appropriate control, whereby a combination of route and construction methodology would be designed to minimise the impacts on the black poplar and other sensitive ecological features in this area. The REAC will be updated at Deadline 4 accordingly.

The arboricultural survey also confirmed the presence of a row of mature oaks which would be considered 'transitional veterans', i.e. the next generation of veteran tree, however as they do not currently meet the criteria for veteran status they are not assessed as such. The commitments outlined above would apply to these trees in order to minimise the effects of the gas main diversion.

**REP2-069-006**

### **Sub-Question**

Impact on otters As the proposed route 4 corridor goes through the otter holt, the works could harm or displace the otter(s). Otters

require an abundant, varied supply of food and hunt in river territories of up to 15 miles in length. During the construction phase, the proposed diversion route would restrict the river that they can hunt in to less than 3 miles' length. Otters are sensitive to river pollution, even temporary, and the likely accidental spillages of soil, sediments, oils, fuels or chemicals during the construction phase could be highly damaging, even fatal, if the river is contaminated. Damage to their waterproof coats can result in drowning and the impact on river fish stocks could reduce their food supply. Otters are secretive and sensitive to human incursion and require their holts to be free from disturbance. As most of the diversion route runs close to, or follows the river Blackwater, this will almost certainly result in the otters being distressed and displaced. The otters only arrived when the owners of Blue Mills restricted access (including their own) to the area. Otters require plenty of riverside vegetation to lie up in during the day. The route would result in the destruction of a significant area of riverside vegetation, including trees and reedbeds, both at the river crossing onto the nature reserve and also along the considerable length the route now follows the river. Much of the success of the Blue Mills wildlife sanctuary is because the owners have managed access and minimized disturbance to the wildlife, which is especially important for the otters. However, an easement giving third party rights of access for maintenance of the pipeline would stop them being able to do this in future.

### **Applicant's Response**

The Applicant acknowledges the use of the section of the River Blackwater that falls within the proposed gas main diversion corridor, and the presence of a potential otter holt within the black poplar tree within Blue Mills proposed Local Wildlife Site. The final alignment of the gas main diversion (within the Order Limits) has not yet been determined by Cadent and therefore the proximity of the potential otter holt in relation to the final diversion route is not yet known. The Applicant is working with Cadent to develop the design and construction methodology of the proposed gas main diversion, fully taking into consideration the potential otter holt, among other environmentally sensitive constraints. Mitigation measures to avoid impacts on the black poplar tree that contains the potential holt through micro siting of the pipeline route and the adoption of a trenchless crossing of the River Blackwater (see commitment LV15 in the Register of Environmental Actions and Commitments (REAC) [APP-185] will be implemented. An assessment of the effects of otter is presented within the Applicant's response to ExQ1 7.0.3 [REP2-025].

Barrier to movement

The Interested Party states that during the construction phase, the proposed diversion route would restrict the length of river that otters can hunt in to less than 3 miles. However, this is incorrect as there would be no physical impediments to otter movement through the River Blackwater, or the nearby River Brain, as a result of the proposed gas main diversion. All main river crossings for the gas main diversion would be installed using trenchless techniques, such as horizontal drilling (see commitment LV15 in the REAC [APP-185]), which would allow for continued connectivity for otter commuting and foraging across the wider landscape.

#### Water quality

Chapter 14: Road drainage and the water environment, of the Environmental Statement [APP-081] identifies the potential for adverse impacts to the River Blackwater through changes in surface water quality through sediment pollution, pollution from polluting substances and accidental spillages, and pollution from trenchless crossing for the gas main diversion. With standard mitigation during the works, as outlined in paragraph 14.10.24 of Chapter 14 [APP-081], it was determined the gas main diversion would have a negligible magnitude impact on surface water quality, resulting in a slight adverse significance of effect (not significant) for the River Blackwater (Table 14.13 in Chapter 14 [APP-081]).

Standard mitigation measures to prevent impacts on water quality are secured through commitments RDWE1, RDWE2, RDWE3, RDWE4, and RDWE32 of the REAC [APP-185].

The potential impact to otters due to water quality changes on watercourses during construction was noted in Chapter 9: Biodiversity [APP-076] as part of the overall assessment of the proposed scheme on otters, but it was assessed that with mitigation, there would be no long-term or significant impacts on the conservation status of otter within the proposed scheme footprint or the wider Order Limits.

#### Disturbance

Depending on the alignment of the gas main diversion, there is potential for noise and vibration impacts to otters if using the potential holt at the time of construction. Noise and vibration disturbance from the machinery required for completing trenchless crossing of the River Blackwater could discourage otters from commuting, accessing nearby foraging habitat or resting within the potential holt. However, once the tunnel boring machine is in the ground the soil would attenuate any noise from the machine as it moves through the ground.

The plant at the launch and reception points of the machinery, for example generators, pumps, conveyor for taking away the spoil, and small lifting machinery, are small items and would not generate high levels of noise. However, when more detail of the location of the plant in relation to the otter holt are known, calculations can be undertaken to predict the expected noise level. If the expected noise level is high then mitigation measures can be provided, for example:

- Where practicable, starting the boring at the further point from the otter holt. This would enable any vibration to increase gradually and thus reduce the sudden nature of any disturbance from vibration.
- A continuous boring operation, thus avoiding starting and stopping of the machine. The start-up operations of the equipment can often generate the highest levels of vibration. A continuous operation may require night and/or weekend working.
- Avoiding starting tunnel boring during periods of otter use.

It is estimated that the trenchless crossing in this location would take several weeks to complete (i.e. would be a temporary impact) and would be undertaken within daylight hours (thus avoiding night-time disturbance when otters are more active and potential impacts to their movements may be greater). Otter would also retain access to the potential holt following completion of the works.

As a worse case the machinery for the trenchless crossing would create a vibration level of between 1 and 10mm/s peak particle velocity (PPV) which in accordance with Table 3.33 of DMRB LA 111 Noise and vibration would be a moderate level of impact. In accordance with DMRB LA 108 as per Table 9.9 of Chapter 9 [APP-076], this would result in a slight significance of effect (not significant) on a County value receptor. This is consistent with the previous assessment of construction impacts on otters as per Table 9.29 of Chapter 9 [APP-076].

Owing to their legal status, a Natural England European Protected Species Mitigation (EPSM) licence would be required if works are considered to disturb an otter holt, for example through vibration.

As per commitment BI34 of the REAC [APP-185], should any new resting places be identified, and should they be located in a place that would be disturbed, damaged or destroyed as a result of the proposed scheme, a European Protected Species Mitigation licence would be obtained from Natural England to agree the specific mitigation approach. Once further detail on the route of the gas main diversion is available the Applicant will assess the potential for disturbance from vibration and would seek a licence if



required.

#### Riverside vegetation

While the Retained and Removed Vegetation Plans Part 1 [APP-035] and Part 2 [AS-017] illustrate trees at risk within the full extent of the lateral limits of deviation (for the gas main diversion), the Environmental Statement assumes vegetation loss would be restricted to a 30m corridor as a realistic worst-case assessment. In other words, the actual width of construction for the gas main diversion would typically be much narrower than the limits of deviation, as described in Section 2.6 and shown in Plate 2.7 of Chapter 2: The proposed scheme [APP-069]. It may also be feasible to retain some of the other trees identified as trees at risk on the Retained and Removed Vegetation Plans Part 1 [APP-035] and Part 2 [AS-017]. This would be determined at the detailed design stage.

As per commitment LV15 of the REAC [APP-185], the working width for the installation of the gas main diversion would be reduced as far as reasonably practicable through woodland and where the gas main diversion crosses through hedgerow field boundaries. Impacts to the reedbed along the River Blackwater would be avoided as trenchless crossing techniques (such as directional drilling) would be used for Main River crossings (for the gas main diversion).

As per commitment LV14 of the REAC [APP-185], the gas main diversion would be carried out in accordance with the utility company's guidance and best practice standards. There would be a no planting zone on and close to the edge of the pipeline. However, there would be scope to replant parts of the 30m corridor to reduce the width of the gap in the long term. Planting proposals would be developed at detailed design.

After crossing the River Blackwater in the Blue Mills area, the gas main diversion route runs roughly parallel to the River Blackwater for approximately 730m as the route travels north and around Whetmead LNR/LWS, before crossing the River Blackwater again near Little Braxted. The western edge of the pipeline corridor is further than 50m from the river for over 600m of this length, and at some points a minimum of 160m from the river, providing ample remaining vegetative cover for otters while also minimising disturbance impacts.

#### Rights of access

The gas main diversion would be maintained by Cadent following their own maintenance protocols and industry standards. Once

installed, maintenance activities would be limited and very unlikely to be intrusive except in exceptional circumstances. Such activities would therefore have a negligible potential for a disturbance effect on otters which could continue to use the habitats around Blue Mills.

**REP2-069-007**

### **Sub-Question**

Impact on red kites, water voles and bats The diversion corridor potentially requires the nest trees to be cut down. Even if the actual trees are avoided, works destroying the surrounding trees or close to the nests would almost certainly displace the birds and deter them from breeding here in future. Red kites are extremely sensitive to human disturbance in the vicinity of their nests. Water voles inhabit our riverside vegetation and reedbeds. They would be made homeless through habitat loss and displaced by disturbance from the works. The route 4 corridor crosses the river and then cuts directly through the reedbeds. Bats live and hunt over the entire area, and especially by the river, and would be severely and permanently impacted from loss of, and disruption to, their feeding and roosting habitats. At least two species of bat (brown long eared and pipistrelle) are widespread and there are likely to be many more, given the varied and ideal bat habitat. The co-incidence of rivers, ancient deciduous woodland with numerous veteran trees, along with old buildings and barns, are ideal for feeding and roosting.

### **Applicant's Response**

The Applicant acknowledges that there is suitable nesting habitat for red kite as well as other breeding birds within Blue Mills LWS. Works would be timed to avoid the main breeding bird season, where reasonably practicable and appropriate. Where this cannot be achieved this would be managed in accordance with advice, under supervision from a suitably qualified Ecological Clerk of Works (ECoW), where required. Works in this case would be preceded by a pre-works check for bird nests to ensure they are absent in compliance with the Wildlife and Countryside Act 1981. Any potential impacts to nesting birds would be minimised with the implementation of measures as committed to in BI5 and BI39 of the Register of Environmental Actions and Commitments (REAC) [APP-185].

A riparian mammal survey conducted in 2022 recorded no evidence of water vole, and discussions from the site meeting with the landowner in July 2022 indicated that water vole were previously observed upstream but have not been seen recently. Video evidence of water vole recorded by the Interested Party has been analysed by technical experts at Jacobs and are determined to be bank or field vole (not discernible due to video quality but definitively not water vole due to size, tail length and general appearance). Water vole were not recorded in other sections of the River Blackwater or within the River Brain which converges with the River Blackwater in this part of the proposed scheme (Appendix 9.10: Riparian Mammal Survey Report [APP-134]). Furthermore, an American mink was recorded on wildlife cameras deployed on the landowner's land as part of the surveys undertaken, and these predate water vole and may have reduced or eliminated the local population. Water vole are considered to be likely absent from the sections of the River Blackwater within the Order Limits, although preconstruction surveys for water vole would be undertaken to ensure this has not changed, as committed to under mitigation BI11 in the REAC [APP-185]. Despite the likely absence of water vole, commitment LV15 of the REAC, which states that all main river crossing(s) for the gas main diversion would be installed using trenchless techniques, such as horizontal drilling, which would ensure there are no direct impacts to the River Blackwater. Additionally, there will be no impacts to ditches or reedbeds, as the Applicant understands these are situated outside of the Order Limits. Therefore, if water vole recolonise the River Blackwater prior to the start of construction they would not be impacted by construction of the gas main.

Conversely, should water vole recolonise the River Blackwater they would benefit from the pond and ditch network which is being provided within the mitigation area to the south of Whetmead Local Nature Reserve and Local Wildlife Site. The mitigation area is located approximately 200m from Blue Mills but has good connectivity for riparian species such as water vole via the River Brain. Subject to land owner consent and planning permission these habitats would be created in advance of main construction.

With respect to roosting bats, ground based bat roost assessments were undertaken of trees within the proposed gas main corridor (including woodland owned by the landowner), and identified 13 trees with bat roost potential, of which 11 are within the Order Limits. Further climbing and dusk emergence / dawn re-entry surveys were undertaken, but no bat roosts were confirmed (see Figure 1 of the Supplementary Bat Survey Report [AS-032]). However, the Applicant will work with the landowner to understand the location of the brown long-eared bat and soprano pipistrelle roosts that they have identified to determine whether there is potential for effects on the roosts. If necessary, the roosts can be added to the bat licence for the project and impacts mitigated accordingly. The Interested Party refers to the old buildings and barns as roosting habitat but these are a sufficient distance away from the Order

Limits so as not to be subject to any disturbance.

With respect to foraging bats, the Interested Party refers to ancient woodland, veteran trees and rivers. Ancient woodland is defined by the Woodland Trust as areas of woodland that have persisted since 1600 AD in England. No ancient woodland is recorded on the Ancient Woodland Inventory for this location. There is also no mention of ancient woodland within the citation for the proposed Blue Mills Local Wildlife Site, nor have Essex Wildlife Trust raised ancient woodland as a concern within their response to the statutory consultation. 'A Map of the County of Essex' (Chapman and Andre, 1777) does not show any woodland within the gas diversion corridor, which suggests the woodland at Blue Mills has not been continuous since 1600 AD and therefore would not qualify as ancient woodland, albeit it does show other woodlands such as Chantry Wood to the east. Based on existing baseline data, no ancient woodland (also as per the Woodland Trust inventory) would be lost as a result of construction of the proposed scheme. Additionally, the gas main is proposed to be drilled underneath the River Blackwater, as stated above, so this linear foraging habitat would not be directly affected.

Nevertheless, the use of the woodland within the Blue Mills site by bats for foraging is not disputed. But, as shown on sheet 8 of 21 of the Retained and Removed Vegetation Plans – Part 1 [APP-035], vegetation loss would be restricted to a 30m corridor within the Order Limits for the gas main diversion. The width of the Order Limits in the woodland of concern is between 150m and 200m, and so the impacts on woodland foraging habitat would be approximately one fifth of the Order Limits (based on the narrowest measurement of 150m). In addition, as per commitment LV14 of the REAC [APP-185], loss of woodland habitats would be partly mitigated through replanting along the easement of the gas main diversion and the works would be carried out in accordance with the utility company's guidance and best practice standards. Where woodland vegetation is lost and trees cannot be replaced in situ due to the restrictions of utility easements, native shrub planting would be used in line with the relevant utility company's guidance. Construction and replanting of the pipeline would effectively create a ride through the woodland once the replacement planting has matured. Bats woodland rides provide foraging habitat for some species of bats due to the diversity and abundance of insects, however it is acknowledged that some species of bats prefer closed canopy and dense understorey and would not benefit from construction of the gas main. However, of the species recorded across the proposed scheme, species such as barbastelle, brown long-eared bat, common pipistrelle, noctule and soprano pipistrelle are known to utilise woodland rides for foraging.

As per Table 9.23 of Chapter 9 [APP-076] no significant effects are predicted for water vole, red kites or bats as a result of

construction of operation of the proposed scheme.

**REP2-069-008**

### **Sub-Question**

Impact on other protected species There are numerous other protected and endangered species concentrated in this area. There is an abundance and variety of wildlife on the reserve, including European Protected Species, and birds and animals protected under the Wildlife and Countryside Act 1981 and listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

### **Applicant's Response**

The Applicant's response to ExQ1 7.0.3 [REP2-025] summarises the data used to inform the assessment of effects on protected species within Chapter 9 [APP-076]. The response also summarises the data which has been collected since submission of the DCO application and since land access was permitted to Blue Mills, and whether the results of the surveys affect the outcome of the assessment or whether any further mitigation is required.

Since submission of that response, the arboricultural assessment has been completed and the report will be submitted to the Examination at Deadline 3.

The arboricultural survey at Blue Mills confirmed that the mature black poplar within the Order Limits qualifies as a potential veteran tree and as such would be assessed as a Nationally important receptor in accordance with DMRB LA 108 (this supersedes the assessment of the trees as being of County value based on the rarity of the black poplar as stated in the response to Examiners Questions reference ExQ1 7.0.3 [REP2-025]). The results of the arboricultural survey will be used to inform an appropriate control, whereby a combination of route and construction methodology would be designed to minimise the impacts on the black poplar and other sensitive ecological features in this area. The Register of Environmental Actions and Commitments [APP-185] will be updated at Deadline 4 accordingly.

REP2-069-009

**Sub-Question**

6. THE IMPACT ON LOCAL LANDSCAPE CHARACTER AND LOCAL AMENITIES SUCH AS THE ISHAMS CHASE FOOTPATH  
 Impact on local landscape character As stated in the Supplementary Consultation brochure (p24), corridor 4 has 'the potential for significant effects on local landscape character and properties due to landscape loss' and 'significant effects from the loss of mature woodland which is difficult to mitigate due to the time required for replacement habitats to mature'. In addition, pipeline maintenance requirements can prevent tree replanting for future generations.

**Applicant's Response**

Landscape and visual effects including views from the footpath (PRoW 268\_23) are covered in the Applicant's Procedural Deadline A Submission [PDA-016-001, REP1-002].

REP2-069-010

**Sub-Question**

Impact on the Ishams Chase footpath A public footpath runs the full length of Ishams Chase, and this allows the local and wider community to share the enjoyment of this beautiful, ecologically valuable, and heritage rich area. At the start of the footpath, on the left, lies the picturesque Blue Mills house, mill and bridge. The first section of the footpath is lined with ancient hedgerows and trees and it then gains far reaching views over the surrounding area as it rises towards Glen Chantry. The gardens of Glen Chantry lie at the end of Ishams Chase, next to the public footpath, and are much enjoyed by passing walkers. The attractive Grade II listed Ishams Barn also lies directly on the footpath near the end of Ishams Chase. As the footpath crosses the field to continue towards Little Braxted, it runs close to, and parallel with, the Blue Mills nature reserve and its magnificent boundary tree-line with adjoining strip of ancient woodland, affording a beautiful and impressive vista, enriching the footpath with nature, and shielding the view

across to the A12. This is illustrated in the picture below. We are concerned that a 20-30 metre gap might be cut directly through this tree line - the proposed route corridor crosses it at right angles- destroying its beauty and exposing the footpath to a direct view of the A12

### Applicant's Response

Landscape and visual effects including views from the footpath (PRoW 268\_23) are covered in the Applicant's Procedural Deadline A Submission [PDA-016-001, REP1-002].

**REP2-069-011**

### Sub-Question

**7. OUR PROPOSED LEAST ENVIRONMENTALLY DAMAGING ROUTE IF THE CURRENT ROUTE 4 CORRIDOR IS UPHELD**  
 We recommend that the gas pipeline passes to the north of the Blue Mills nature reserve, following a route which we have arrived at in conjunction with the owners of the neighbouring woodland. This route will, we believe, minimize the ecological impact of the works and the impact on the landscape and the amenity value of the Ishams Chase footpath. Our illustrations A-C below show the impact that the construction of the gas pipeline could have if it follows the currently proposed route. The pictures are also marked with our suggested route. We have annotated the illustrations with the location of the female Black Poplar otter holt, red kite nests, and strip of ancient woodland, and highlighted the location of the footpath relative to these. Of note is that trees on our suggested alternative route are only scrub trees (around 15 years old as they were earlier cut down for a water pipeline) and also that if this track were adopted, the rising land of Whetmead behind this cut through point would shield the footpath from the view of the A12. We also propose that tunnelling be employed in the vicinity of the nature reserve and request that an enforceable assurance be given that the roots of the nearby Black Poplar will be given adequate clearance and that the tree canopy will be fully protected from damage by construction machinery. Cadent has confirmed via email to a core shareholder's Environmental and Social Governance investment department that trenching will be avoided over any ecologically sensitive areas such as the Blue Mills nature reserve. We also are anxious that the Planning Inspectorate ensure that English Nature guidelines on prohibiting construction during the

period March to September be adhered fully in order to avoid unnecessary disturbance to wildlife during their breeding season.

### **Applicant's Response**

The Applicant acknowledges the Interested Party's proposed route for the gas main diversion which will be shared with Cadent. Cadent will be responsible for the detailed design of the alignment and would determine the method of construction.

The Applicant refers the Interested Party to other sections of this response which address otters, red kites and the black poplar, and the Applicant's explanation of why the woodland is not considered to be ancient woodland.

The Interested Party refers to English Nature guidelines with respect to prohibiting construction during the period March to September, however this is addressed by Commitment BI4 of the Register of Environmental Actions and Commitments within the first iteration Environmental Management Plan [APP-185] which states that works would be timed to avoid sensitive periods for protected species where reasonably practicable and appropriate. Where this cannot be achieved, this would be managed in accordance with advice and, where required, supervision from an Ecological Clerk of Works (ECoW) and in accordance with any protected species licence requirements.

**REP2-069-012**

### **Sub-Question**

APPENDIX A Concerns on the completeness and accuracy of the applicant's consultation Environmental Report The working table A.4 and the conclusions section A.5 in the Supplementary Consultation: Environmental Report was the preliminary assessment of affects for the diversion corridor put forward to the Planning Inspectorate. We consider that this report was incomplete, misleading or inaccurate and detail our concerns below. This raises the questions as to whether, or to what extent, the fundamental assessments documented in these sections was carried out fully, and whether sufficient time was allocated to allow a considered assessment. It is of concern as the decision on which routes to put forward to consultation and for approval by the Planning Inspectorate should have been based on this assessment. Excerpts from the report are shown in magenta. Relating to table A.5



(Conclusions) A.5.1 ..most of the adverse effects would not be significant.. For the reasons outlined elsewhere in our report, this hugely understates the ecological and landscape damage which would be caused by the diversion route. A.5.4 Vegetation loss as a result of construction...has the potential for significant effects on local landscape character and visual receptors. The route would damage local landscape character. A.5.4 This is also likely to cause significant effects during operation due to easements restrictions limiting replanting of trees above the HPP. The impact would therefore be long lasting. We cannot understand how the report elsewhere can refer to the effects of laying the pipeline as temporary. The land along the river is an important wildlife corridor. Enforced tree gaps of some 20-30 metres would permanently disrupt this corridor. The area along the river around Blue Mills/Ishams chase is intermittently heavily wooded within the route corridor. A.5.5 All the corridors would result in the loss of woodland habitats which are more difficult to mitigate due to the time required for habitats to mature. Therefore, there would be a moderate adverse effect (significant effect) from all diversion options. We consider the reference to 'all diversion options' to be misleading as routes 1 and 3 will result in little or no loss of woodland additional to that required for the extra lanes of the A12, and no loss of ancient woodland. In addition, in respect of route 4, because of the significant impact on areas of mature mixed deciduous woodland and ancient hedgerows, these corridors would have more than a 'moderate adverse' effect. Many of the trees which would require clearance are several hundred years old. Their maturity makes them suitable homes for bats and birds in trunk cavities and for otters in hollows in the tree base. Tree height and their rare grouping with other similarly ancient trees and rare habitat makes them attractive to birds such as red kites. New tree planting cannot replace this, even if planting were allowed. A.5.5 Those corridors with the least impact on woodland habitat (ie those requiring the smallest area of woodland clearance) would have the least impact on biodiversity. This is a fact and clearly indicates that routes 1 and 3 should be chosen. A.5.6 Other habitat losses are more easily mitigated, and given the temporary nature of the impacts, are considered not significant. This is not correct. Reedbeds take around 5 years, by which time the wildlife which depends on it will have lost its source of food and shelter and may have died or been displaced. If they are displaced, there is a lack of suitable replacement habitat for them to go to while it regenerates. This is certainly the case for the otters and water voles. Relating to table A.4 (route 4) Biodiversity There is no mention of the fragmentation of the River Blackwater wildlife corridor which would be caused by the route crossing the river onto the Blue Mills nature reserve. Some destruction of the vegetation is likely to take place during construction despite tunnelling techniques being used for the actual river crossing. There is insufficient mention of the proliferation of bats, for which this riverine habitat is ideal, some of whose roosting sites may be in the veteran trees threatened by the development. No mention is made of the mature mixed deciduous woodland, hedgerows, wet woodland and reedbeds on the Blue Mills nature reserve, which would be directly and

avoidably in the path of the gas pipeline. No mention is made of the wet woodland and the reedbed adjoining the Blue Mills property to the north. This is despite the fact that the reedbeds are visible by simple examination of the site via google earth. No mention is made of the numerous veteran trees on the site, and no mention is made of the fact that this route threatens cutting through this important belt of ancient woodland. No mention is made of the presence of otters and water voles, and the existence of an otter holt on the property, despite this being notified to Ardent by email on 27 October 2021. The key constraints for this corridor are the same as corridor 2 (where corridor 2 states that: ..it is assessed that is unlikely that there would be significant effects on protected species). This is inaccurate. The homes and food supplies of otters, water voles, bats and red kites would be lost either permanently, or assuming new trees could be replanted, would be lost for several hundred years while new veteran trees grow, or five years for reedbeds to re-establish. As the habitat that the protected species depend on is rare, they could not move elsewhere. In addition, otters and red kites would not tolerate even close-by construction activity as they are very sensitive to disturbance. The Blue Mills/Ishams Chase area provides a unique, diverse, interconnected collection of rare habitat. It is likely that many protected species would either be able to relocate or to remain and survive damage to or destruction of their habitat. This view is supported by the Essex Wildlife Trust. Cultural heritage No mention is made of the impact on the setting of the listed building of Blue Mills. The wider setting of the land upriver is historically significant for a mill which typically owned the embanked floodplain upstream as it was required for the management of water flows. It would have been of limited use for growing arable crops but was typically used for other forms of agriculture such as cropping moisture loving timber trees such as poplars, for woodland or as floodplain grazing marsh. The area currently designated as a nature reserve has always been part of the Blue Mills property and was known in mediaeval times as 'Calloways Bottom'. Road drainage and the water environment Corridor 4 would only cross three unnamed watercourses. No mention is made of the multiple watercourses flowing into and crossing the Blue Mills nature reserve. We note that these and other statements throughout the report are being presented as fact despite no surveys having been carried out. Landscape and visual No mention is made of the ancient woodland and the many ancient and veteran trees in the Blue Mills nature reserve and surrounding areas.

### **Applicant's Response**

As mentioned in the Applicant's response to REP2-069-003, the Environmental Report that was published to support the November 2021 supplementary consultation presented a preliminary assessment of the gas main diversion options, based on information

available at the time the report was produced. The Environmental Report was not a detailed assessment. The detailed environmental assessment results were reported in the Environmental Statement that was submitted with the DCO application.

The Applicant has responded to points made in the Interested Party's report, Appendix A, below.

#### Comments on Section A.5 of the 2021 Environmental Report

##### A.5.1 ...most of the adverse effects would not be significant...

This statement is correct. The Environmental Report covered all environmental topics, not just biodiversity, and most topics would have no significant effects as a result of the gas main diversion. Paragraph A.5.1 goes on to state that there are a number of potential significant adverse effects, including on woodland and landscape and visual receptors.

##### A.5.4 Vegetation loss as a result of construction...has the potential for significant effects on local landscape character and visual receptors.

This statement is correct. The Environmental Report stated that corridor 4 had the potential for significant landscape and visual effects. The Environmental Statement has concluded that there would be likely significant adverse effects on local landscape character area sub area A9A (see Appendix 8.2: Landscape effects schedule, of the Environmental Statement [APP-120]); and representative viewpoint 35, although this would reduce to not significant by year 15 (see Appendix 8.3: Visual effects schedule, of the Environmental Statement [APP-121]). The Applicant responded in more detail to landscape and visual impacts in its response to the Interested Party's Procedural Deadline A Submission [PDA-016-001, REP1-002].

##### A.5.4 This is also likely to cause significant effects during operation due to easements restrictions limiting replanting of trees above the HPP.

Again, this statement is correct and the Environmental Report stated this. The Environmental Statement also states the limitations of the easement in paragraph 8.6.19 of Chapter 8: Landscape and visual [APP-075], and mitigation has been included to replant along the easement of the gas main diversion in accordance with the utility company's guidance and best practice standards (see LV14 in the Register of Environmental Actions and Commitments (REAC) [APP-185]).

Landscape and visual effects were not described as temporary in the Environmental Report, nor was the loss of woodland where

replanting would be affected by the gas main easement. Impacts that were described as temporary in the Environmental Report include construction noise, disruption to rights of way, temporary land acquisition (including agricultural land), and loss of some non-woodland habitats, as these effects would only last until the construction works cease, and/or land is reinstated/restored.

A.5.5 All the corridors would result in the loss of woodland habitats which are more difficult to mitigate due to the time required for habitats to mature. Therefore, there would be a moderate adverse effect (significant effect) from all diversion options.

This statement is correct, as all options would result in loss of woodland, and at the time the Environmental Report was produced the proposed scheme mitigation strategy was not complete, so there was potential for significant effects related to the loss of woodland. Paragraph A.5.5 goes on to state that 'Those corridors with the least impact on woodland habitat (i.e. those requiring the smallest area of woodland clearance) would have the least impact on biodiversity' (see the response to the next point).

It should be noted that Chapter 9: Biodiversity of the Environmental Statement (see paragraph 9.11.91 and 9.11.92) [APP-076] concluded that there would be no significant effect on lowland mixed deciduous woodland priority habitat from the proposed scheme (including the gas main diversion). This is because losses of 44.78ha of woodland and forest habitats within the footprint of the proposed scheme would be replaced at a ratio of 1.95:1, resulting in an overall net gain of 42.52ha of woodland and forest.

A.5.5 Those corridors with the least impact on woodland habitat (i.e. those requiring the smallest area of woodland clearance) would have the least impact on biodiversity.

Although corridor 4 would result in more woodland loss than corridors 1 and 3, this was just one matter that was considered when selecting the preferred option. Biodiversity is one topic within the environmental appraisal, and environment in turn is one factor that is considered in options appraisal. The decision for the selection of the gas main diversion route was made upon a variety of factors including engineering, ground contamination, environmental impacts and assessment of construction impacts.

As explained in the Applicant's response to REP2-069-003, Corridors 1 and 3 were discounted as they would involve diverting the gas main through the historical landfill at Whetmead Local Nature Reserve.

A.5.6 Other habitat losses are more easily mitigated, and given the temporary nature of the impacts, are considered not significant.

Paragraph A.5.6 of the Environmental Report should be viewed in the context of the previous paragraph in that report (A.5.5) that explains that woodland would be difficult to replace due to the time it would take to mature, and the restrictions of replanting in the

gas main easement. Other habitat would be easier to mitigate as they would not be subject to the same easement requirements and would be replaced following completion of the works.

The Applicant confirms that there are no reedbed habitats present within the Order Limits. Ecology surveys undertaken in 2022 identified reedbed habitat to the south of the Order Limits (as shown in Photograph 8 of the Supplementary Botanical Survey Report, Deadline 2 Submission [REP2-027]), none of which would be lost as a result of the gas main diversion.

Comments on Table A.4 of the 2021 Environmental Report

#### Biodiversity

The Environmental Report was based on desk-top information available at the time the report was written. A detailed response on ecology surveys, and biodiversity impacts and mitigation related to Blue Mills LWS, has been provided in the Applicant's response to REP2-069-003 and the Examining Authority's written question ExQ1 7.0.3 [REP2-025].

#### Cultural heritage

The Environmental Report focused on listed buildings in close proximity to the gas main diversion works, that could be potentially affected. The proposed gas main diversion would be approximately 300m north of the Blue Mills grade II listed building (Asset 332) and the non-designated archaeological site of its medieval predecessor (Asset 333). Because of the distance between the listed buildings and the gas main diversion, as well as intervening vegetation, the Environmental Report of 2021 considered there to be no potential for an impact on their heritage value from the proposals; this was later confirmed in cultural heritage assessment in Chapter 7 of the Environmental Statement [APP-074]. There would be no physical impact on either asset during construction of the proposed gas main diversion, and a neutral impact has been assessed on their settings during construction and operation, as reported in Appendix 7.9: Cultural Heritage Impact Assessment Summary Tables, of the Environmental Statement [APP-117].

#### Water environment

The water assessment refers to named main rivers as well as ordinary watercourses which have been given unique reference numbers for the purpose of the proposed scheme Environmental Statement. In addition, there are numerous minor and unnamed drains and ditches within the study area, often associated with field boundaries. These have not been itemised in the assessment

but have been considered as extensions of the named watercourses to which they are associated.

#### Landscape and visual

The Blue Mills LWS is not identified as an ancient woodland inventory site, and no ancient or veteran trees are included in the Woodland Trust ancient woodland inventory, which is why none were mentioned in the Environmental Report.

An arboriculture survey has recently been undertaken in the area and confirmed the presence of a row of mature oaks which would be considered 'transitional veterans', i.e. the next generation of veteran tree, however as they do not currently meet the criteria for veteran status they are not assessed as such. Survey data will be used to refine the gas main diversion design at the detailed design stage, to avoid or otherwise mitigate impacts on sensitive trees where practicable.

**REP2-069-013**

#### Sub-Question

APPENDIX B A sample of the wildlife observed at Blue Mills by the owners • Brown long eared bat (roosting site) • (Soprano) pipistrelle bat (maternity roost) • Bat foraging site • Otter (otter holt, hunting and resting territory) • Badger • Red kite (breeding site) • Buzzard (breeding site nearby) • Kestrel (breeding site) • Barn and tawny owl • Mice, vole, shrew (important food species for raptors such as kestrels) • Swallow (breeding site) • Kingfisher (breeding site) • Treecreeper • Woodcock • Waterfowl such as moorhen (breeding site), coot, little egret, heron, swan • Nightingale and numerous other songbirds • Grass snake • Adder (breeding site) • Slow worm (breeding site) We previously uploaded a video montage to illustrate the nature on the site as part of our submission to request an Accompanied Site Inspection. As part of this current submission, we have also uploaded nature-cam footage of the otter next to his holt and of a water vole in the reedbeds

#### Applicant's Response

The Applicant notes the Interested Party's comments and has responded above in relation to the receptors noted.

**Mary Ann Lindsay**

REP2-077-001

**Sub-Question**

Please see [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-001553-Mary%20Lindsay%20-%20Written%20Representations%20\(WR\)%20and%20summaries.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-001553-Mary%20Lindsay%20-%20Written%20Representations%20(WR)%20and%20summaries.pdf)

**Applicant's Response**

The Interested Party submitted this document into Examination at Deadline 1 [REP1-047].

The Applicant has previously responded to these questions which were raised by the Interested Party in their written submission of their oral representation made at the open floor hearing [REP1-046]. This response can be found in the Applicant's Deadline 2 Submission - 9.19 Applicant's comments on information received at Deadline 1 [REP2-030].

The Applicant, at this stage, does not believe that there is further detail to be added to the previous response, but will continue to liaise with the Interested Party to understand their concerns and further explain the planned mitigation measures proposed.

**Ashfords LLP on behalf of Messing and Inworth  
Action Group Limited**

REP2-084-001

**Sub-Question**

This submission is made on behalf of the Messing and Inworth Action Group Limited (MIAG). Introduction MIAG has serious concerns with the proposal by National Highways (NH) to alter the existing A12, notably the works at the proposed new junction 24 (J24), work in the village of Inworth and the impacts from the scheme on the villages of Messing and Inworth. MIAG has submitted detail to date through a relevant representation and participated in the Preliminary Meeting & Open Floor Hearing 1. MIAG is not in principle against the current scheme, however it considers that the J24 proposal is unacceptable in its current form. MIAG

advocates an alternative bypass proposal around the village of Inworth (known as the Main Alternative). The Main Alternative has been discounted by NH and does not form part of the DCO application. MIAG considers that NH has discarded the Main Alternative with little justification or evidence to support its decision. In MIAG's view, the proposed A12 scheme as designed is not supported by the policies of the National Policy Statement National Networks(NPSNN) and is contrary to section 104 of the Planning Act 2008. As such, in MIAG's view, the DCO application should be refused a development consent order.

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-084-002**

### **Sub-Question**

Technical Traffic Report MIAG has commissioned Transport Planning Associates (TPA) to review the information submitted by NH in support of the DCO application. The report prepared by TPA is appended to this written representation (please see Appendix 1). For the sake of brevity the conclusions of this report are not summarised here as a summary is noted on p.25 of the TPA report to which we direct the Panel's attention.

### **Applicant's Response**

The Applicant notes the information provided by MIAG.

Please refer to the Applicant response to sub question REP2-085-001 regarding the TPA report.

**REP2-084-003**

### **Sub-Question**



Further Submissions MIAG submits as part of this written representation a suite of reports which it had prepared whilst reviewing and considering the potential impacts of the A12 proposal on the villages of Messing and Inworth. These are appended to this report at Appendix 2. Appendix 3 to this submission includes correspondence from various parties – including the MP for Witham – and a Petition signed in support of MIAG’s position on the A12 proposal. MIAG respectfully requests that all of these documents are taken into account by the Panel as part of its submission.

### **Applicant’s Response**

The Applicant notes the information provided by MIAG and will comment on the submissions appendix 2 and 3 accordingly at deadline 3.

The Applicant continues to have discussions with MIAG and matters will be updated in the draft Statement of Common Ground (SoCG) with MIAG accordingly.

**REP2-084-004**

### **Sub-Question**

Draft Development Consent Order We have reviewed the draft Development Consent Order (dDCO) (APP-039) and Explanatory Memorandum (EM) (APP-040) submitted in support of the DCO application. MIAG has a number of concerns to raise with the content of the dDCO. MIAG disagrees with NH that the whole scheme constitutes an alteration proposal under s.22(1)(b) of the Planning Act 2008. This is particularly so when the section to the south of Feering running north to Marks Tey (an approximate distance of between 5 and 6km) demonstrably consists of the construction of a new highway, satisfying the definition of s.22 (1)(a) of the Planning Act. This stretch of new highway contains little, if any, ‘alteration’ to the existing A12 and it does not satisfy s.22(1)(b). The extent of the new highway being created is clear as shown on sheets 13-18 of the De-trunking and Stopping-Up Plans (ref: APP-026) As such, MIAG considers that the section of proposed new road between Feering and Marks Tey is a separate NSIP for which NH has not applied for consent as part of this application. MIAG has a number of comments to make on the dDCO:

SEE TABLE

### **Applicant's Response**

Sections 14 to 30 of the Planning Act 2008 (2008 Act) set out what projects fall within the 2008 Act and outside of those other statutes providing consents for infrastructure development, such as the Town and Country Planning Act 1990, Highways Act 1980 and Gas Act 1986. The relevant provisions for the A12 Scheme are:

1. The 2008 Act at Section 14 defines what is a nationally significant infrastructure project. It is a project which consists of any of a number of the types of project listed under subsection (1), including at 14(1) (h) Highway Related Development.
2. Subsection (2) makes subsection (1) subject to sections 15 to 30A of the Act, including section 22.
3. Section 31 states that development consent is required for development to the extent that the development is or forms part of a nationally significant infrastructure project. Section 31 makes it clear therefore that one or more NSIPs can be included in a consent.
4. Section 33 (4) provides further clarification regarding highway development stating that, if development consent is required then various orders such as trunk road orders and side roads orders are not available for the consenting process.
5. Section 22 of the Act deals with NSIPs for highways. The three limbs of construction, alteration or improvement are described in the alternative and each is further defined by reference to criteria to be used to decide whether the project is a NSIP.

The explanatory memorandum for the A12 Scheme describes the scheme as being for the alteration of a highway, because there is more alteration than construction within the order lands. It is accepted however that there are elements of construction, as well as alteration.

The application has been accepted for examination by the Planning Inspectorate. This is because the project is one to be consented under the Planning Act 2008 and not other legislation that gives the Applicant the ability to apply for consent for smaller scale works to the Strategic Road Network.

The scale of the works for which consent is sought is such that the A12 Scheme would meet the Section 22 criteria for either

construction or alteration (which are materially the same in any event). It would also meet the criteria for improvement.

By any assessment therefore the A12 Scheme is a Nationally Significant Infrastructure Project. The Planning Act 2008 is engaged. It would not be a scheme to be consented by any other regime.

The Planning Inspectorate rightly considered the A12 Scheme to be a scheme that met the relevant thresholds of the 2008 Act. The tests for alteration or construction are materially the same.

The suggestion from MIAG seems to be that for a composite scheme comprising part construction and part alteration the application should be on the basis that there are separate NSIPs for each element of the overall scheme and that separate applications should be made. The applicant believes this would be confusing and extremely difficult to do with precision given the overlapping nature of the areas of construction and alteration. The nature extents and design of the scheme is well known to affected persons and to persons that were consulted pre application. The artificial division of the project in this way would be of no assistance to anyone. It would make no material impact to the powers in the order or the effects on those persons interested in, or affected by, the scheme or the general public.

The Applicant does not believe that this is how the statutory regime works – the purposes of Section 14 and in particular Section 22 are to see whether a scheme meets the thresholds of the 2008 Act or not. If a project does so meet the thresholds for the relevant type of project then there is no need to sub-divide the project in to one or more nationally significant infrastructure projects within the relevant part of Section 14, or apply for separate consents for each project.

It is accepted that the application is made on the basis that there are already two NSIPs in the A12 scheme – the second relating to the Cadent gas diversion work No. U69.

This second NSIP is necessary to record because:

- a) different National Policy Statements (NPS) apply; and
- b) different Secretaries of State would need to provide their consent (albeit the Secretary of State for Business, Energy and Industrial Strategy delegated powers to the Secretary of State for Transport for the time being).

It is therefore clear that the Applicant has sought development consent for all parts of the overall proposal that comprise nationally

significant infrastructure projects. There is a highways NSIP under S14, which clearly meets the thresholds of S22 of the 2008 Act and must be assessed in accordance with the National Policy Statement National Networks and all other considerations provided for in S104 of the 2008 Act. There is also an Energy NPS that meets the thresholds in S20 of the 2008 Act and therefore also falls within S14.

Detailed responses to MIAG's table of drafting comments can be found in Appendix C of this document.

**REP2-084-005**

### **Sub-Question**

OCTMP Paragraph 3 of the outline Construction Traffic Management Plan (OCTMP) (APP-272) outlines the approach to communication and engagement by NH with the local communities and the ways in which different stakeholder groups will be involved in traffic management on an ongoing basis. The traffic management forums are stated to "seek input into the proposals as they are developed and feedback on the implementation of proposals" and "where appropriate, feedback will be incorporated into proposals going forward in the proposed scheme". Table 3.1 of the CTMP lists the stakeholders proposed to be involved, including the parish councils in the Local Area Traffic Management Forum, to meet monthly. MIAG requests that it is included as a member of this forum and added to the list.

### **Applicant's Response**

The Applicant deems the current attendee list within Table 3.1 of the Outline Construction Traffic Management Plan [REP2-003] is appropriate.

**REP2-084-006**

### **Sub-Question**

Plans As noted above, a number of residents have raised concerns about the accuracy of the plans submitted by NH and the extent to which redlines on the plans accurately reflect the works to be undertaken on the ground. Residents at Columbyne Cottage and several others have redlines which run through their gardens but as the redline is the thickness of their gardens or encroaches onto their land it is not clear if works will be undertaken on their properties or whether the powers in the final DCO (if granted) will affect their land. This should be confirmed urgently by NH.

### **Applicant's Response**

The locations and principal land use power sought by The Applicant as part of the DCO are shown in the Land Plans [APP-018], Crown Land Plans [APP-019], Special Category Land Plans [APP-015] and the Book of Reference [APP-044], with these powers being sought up to the centreline of the Order Limits (red line boundary). No powers of land acquisition or to carry out works outside of these areas are sought by The Applicant. For clarity the plots of land within the order limits are noted on the Book of Reference [APP-044] based on Ordnance Survey information. In the case of Columbine Cottage the order limits about the property boundary but property is outside the order limits.

**REP2-084-007**

### **Sub-Question**

Purchase of properties MIAG has serious concerns about NH's conduct as it continues to purchase properties affected by the scheme in what is a falling market. MIAG is not clear how this can be seen as a good use of public money. This includes properties known as the Laurels and West Acre. MIAG understands that almost £1m has been spent in the past few weeks for the acquisition of these properties and it is not immediately transparent why this sum has been spent given the current market conditions. In addition, the property at Westacre has - we understand - been acquired but in excess of NH's original need identified from plans – can NH please confirm the rationale for using funds at risk before the grant of the DCO?

### **Applicant's Response**

Properties that are on the line of the proposed route and where land is required for the scheme can qualify for statutory blight. Statutory blight is when the value of a property is substantially reduced because of a proposal to carry out public works, such as a new road or improvements to an existing road and the owners are unable to sell it at unaffected market value.

Blight can also affect properties that are not directly on the line of the route and where no land is required for the scheme; these properties are known as 'off-line'. Although the Applicant is not obliged to buy off-line properties, Parliament has recognised that in certain circumstances homeowners might have an urgent need to move but cannot sell their property except at a significantly reduced price as a result of the scheme. The applicant operates a discretionary purchase scheme for such situations.

National Highways reviews each blight or discretionary purchase application on a case-by-case basis to assess the impacts and ensure it meets the criteria set out in the relevant guides. It must be shown by the landowner that they have made reasonable endeavours to sell the property at a realistic unaffected price and that they have been unable to do so.

**REP2-084-008**

### **Sub-Question**

Statement of Common Ground with NH has issued a first draft of the SoCG to MIAG. MIAG has reviewed this and provided its own statement on the SoCG's content with supporting appendices (submitted to the Examination in tandem with this document). This position statement has, we understand, been endorsed by the McIPC. At this stage MIAG considers that there are a number of issues in dispute between MIAG and NH and MIAG will continue to seek to narrow these down with NH as the Examination progresses.

### **Applicant's Response**

The Applicant notes the comment from the Interested Party.

The Applicant has provided a full response to this in sub-question REP2-083-001.

REP2-084-009

**Sub-Question**

Rule 8 Letter The MIAG would like to respectfully note that it has found it difficult to navigate a number of the requests set out by the Panel in the issued Rule 8 letter (PD-008). As an example, participants of hearings have been asked to register for all hearings set out in the Examination timetable without knowing what topics will be discussed or whether they are actually due to take place (e.g. they have 'if required' next to them) or – as with ISH1 – it covers a broad topic such as 'Environmental Matters'. MIAG respectfully suggests that it would be helpful for participants to be given more detail on topics that will be covered in advance as it could affect their decision to participate. In addition, the Rule 8 letter notes that all participants will be notified of hearings 21 days prior to them taking place and be given the opportunity to register to participate in those hearings. As such, it is not clear whether registration for all hearings needs to take place now (as noted in the R8 letter) or in accordance with the terms of the later notices. In any event, and from MIAG's perspective, MIAG would like to participate in all hearings relevant to J24 (save for the CAHs). MIAG has – it believes – registered for all of these hearings.

**Applicant's Response**

The Applicant has no comment to make.

REP2-084-010

**Sub-Question**

Conduct of Hearings (OFH) The MIAG also respectfully suggests that it may assist the Examination in the future conduct of the hearings (and this is simply a suggestion following the initial OFHs) for the Panel to set the expectations for hearing participation in advance. As the Parish Councillor for Tiptree (Mr Greenwood) pointed out at OFH1, the Rule 6 letter noted that representations should not simply repeat the relevant representations (which themselves are encouraged by the Panel to be brief / bullet pointed)

and that assertions made during the hearings were encouraged to be supported by evidence. Mr Greenwood (Tiptree PC), Mr Harding (McIPC) and Mr Humphreys (MIAG) were all asked to be briefer, cut submissions short and to submit detail in writing, whereas other participants (including NH) were not – being given ample time to finish their statements. MIAG fully appreciates that the DCO process is a written-led process, however, given the scale of the proposed scheme, its length, and number of impacted communities it may help participants to be given a set timescale in which to make submissions so that enough detail can be given to the Examination and participants feel like they are being given an opportunity to fully contribute to the process.

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

## **Messing and Inworth Action Group Limited**

**REP2-085-001**

### **Sub-Question**

1 Introduction 1.1 Transport Planning Associates (“TPA”) has been instructed by Messing and Inworth Action Group Limited (“MIAG”) to provide transport planning consultancy services in relation to a proposal to widen the A12 between Chelmsford and the A120.

1.2 National Highways (“NH”), is responsible for the management of the Strategic Road Network (“SRN”) on behalf of the Secretary of State for Transport. NH has submitted a Development Consent Order (“DCO”) Application to the Secretary of State for Transport via the Planning Inspectorate (“the Inspectorate”) for an order to grant development consent for the ‘A12 Chelmsford to A120 Widening Scheme’ (“the Scheme”).

1.3 Following the initial consultation process for the Scheme, residents of Inworth and Messing expressed serious reservations and concerns about the local impacts of the proposed Junction 24 and associated works (“the Proposed J24 Works”). The common interest in these concerns led to the formation of MIAG as a representative body for the large number of concerned residents of both communities.



1.4 TPA was appointed by MIAG to provide a review of the information submitted by NH in support of the Proposed J24 Works for the Scheme, including potential design alternatives, to support MIAG's formal objection through the DCO process.

1.5 MIAG has made representations to NH and Essex County Council ("ECC"), in their role as the Local Highway Authority ("LHA"), regarding various technical elements around the J24 Improvements. Unfortunately, MIAG does not believe that the representations made to date have been given the due consideration they deserve and valid matters raised have been largely discarded.

1.6 It should be noted that MIAG is not unsupportive of the overall intentions of the Scheme and the predicted benefits the Scheme will bring.

#### The Scheme

1.7 NH is seeking the granting of powers to enable them to widen a 15 mile (24km) section of the A12, which forms part of the Strategic Road Network ("SRN") between Junction 19 (Boreham interchange) and Junction 25 (Marks Tey interchange).

1.8 The intended purpose of the Scheme is to reduce congestion and delay, improve highway safety and solve strategic traffic problems arising from inadequate and varying route standards. The rationale for the Scheme is set out in the 'Case for the Scheme' (CftS), which was submitted in support of the DCO Application for the Scheme [Document Reference: TR010060/APP/7.1].  
Messing and Inworth Action Group Limited A12 Chelmsford to A120 Widening Scheme, DCO Application (TR010060)

Transport Planning Associates 2207-043/TN/01 | February 2023 2 | 25

1.9 There are two major connecting roads along the length of the Scheme, the A130 (Junction 19) and the A120 (Junction 25), as well as a number of more minor roads providing connections between local settlements and the SRN. These settlements include Chelmsford, Colchester, Boreham, Hatfield Peverel, Witham, Rivenhall End, Kelvedon, Feering, Messing, Inworth and Marks Tey.

1.10 The existing A12 along the length of the Scheme is predominantly a dual two-lane carriageway, with a limited length of dual three-lane carriageway between Junction 19 (Boreham interchange) and Junction 20a (Hatfield Peverel South Interchange). There are a number of direct accesses onto the carriageways, particularly between Junction 22 (Colemans Interchange) and Junction 23 (Kelvedon South Interchange) and between Junction 24 (Kelvedon North Interchange) and Junction 25 (Marks Tey Interchange).

1.11 The proposed scheme involves widening the existing A12 to three lanes throughout in each direction. This would mainly

involve online widening of the carriageway, with offline bypasses created between Junctions 22 and Junction 23 (Rivenhall End Bypass) and between Junction 24 and Junction 25 (Kelvedon to Marks Tey).

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-085-002**

### **Sub-Question**

1.12 It is understood that the design of the section between Junction 24 and Junction 25 is based on an earlier scheme deigned by NH to accommodate the proposed West Tey Garden Community, which was to be a large new urban settlement of 24,000 homes. The West Tey Gardening Community failed to gain planning permission and the associated funding to reposition and widen the section of the A12 to the south and to de-trunk the existing section of the A12, in order to create connectivity and more local capacity, was withdrawn at this time.

### **Applicant's Response**

The Interested Party is correct to say that the Colchester Braintree Borders Garden Community (West Tey Garden Community) failed to gain planning permission. As such, the location and design of junction 24 is not as a result of the previously proposed Colchester Braintree Borders Garden Community. In the Preferred Route Announcement for junction 23 to 25 the Applicant confirmed that, as stated in the 2019 consultation, if the proposed garden community did not go ahead, the preferred route would be based on the 2017 consultation. Therefore, the preferred route announced was based on the Applicant's 2017 consultation option 2

For additional clarity, the bypass between junction 24 (Kelvedon north) and Junction 25 (Marks Tey Interchange) was also based on the 2017 consultation option 2.

For further information please see the Applicant's Consultation Report [APP-045], Consultation Report - Annex A1: Option

Consultation Materials [APP-046], and Consultation Report - Annex A2: Option Consultation Materials [APP-047].

**REP2-085-003**

### **Sub-Question**

1.13 The widening works would be supported by a combination of junction improvement works (Junction 19 and Junction 25), construction of new junctions designed to cater for traffic movements both north and southbound (Junction 21, Junction 22 and Junction 24) and removal of a number of existing junctions (Junction 20a, Junction 20b, Junction 23 and Junction 24).

1.14 The Proposed J24 Works consists of a two-tiered dumbbell layout west of the B1023 Inworth Road along with a new single carriageway link between the southern roundabout and the locally realigned B1023 Inworth Road. Minor works to the B1023 Inworth Road, through the village of Inworth are also proposed to support the predicted increase in local traffic movements. There are currently no proposals to address increased traffic levels through Messing.

1.15 In terms of the Proposed J24 Works, Paragraph 3.3.20 of the CftS asserts that the provision of a “junction close to Inworth Road provides an overall benefit to the proposed scheme, as it provides better connectivity between Tiptree and the SRN. In addition, it reduces the volume of strategic traffic making journeys on the wider Local Road Network in comparison to the previous design from 2017”.

1.16 NH is ‘currently’ estimating a 2023/24 start date for construction, if the DCO application is successful, and an end date of 2027/28. The estimated cost of the Scheme is £1,045m to £1,268m.

#### Scope of Design and Modelling Review

1.17 In addition to the CftS, this report has been prepared with reference to the ‘Transport Assessment’ (“TA”) [Application Document Reference: TR010060/APP/7.2] and the ‘Combined Modelling and Appraisal Report’ (“ComMA”) [Document Reference: TR010060/APP/7.3], which were submitted in support of the DCO Application for the Scheme.

1.18 Draft versions of the outputs of these documents and supporting design drawings, which were shared with MIAG during the

consultation process for the DCO Application, have also been considered.

### Applicant's Response

The Applicant notes the Interested Party's comments.

**REP2-085-004**

### Sub-Question

#### 2 Traffic Modelling and Forecast Traffic Flows Traffic Modelling Overview

2.1 The ComMA and the TA provide detailed descriptions of the Scheme traffic modelling; this includes details of the study network, the modelling techniques used and the tools and methodology of the more detailed assessment criteria undertaken.

2.2 The reporting of network operation for scenarios with (Do Something) and without (Do Nothing) the Scheme are presented for 2027 and 2042, which represent the Scheme's forecast opening year and design year, under the following categories:

-A12 Mainline; -A12 Junctions; -Local Road Junctions; and - Communities. B1023 Inworth Road

2.3 Appendix C of the TA provides Traffic Flow Diagrams for a number of roads in the vicinity of the Scheme to evidence the predicted impacts of the Scheme. Traffic flows for without and with the Scheme are presented in Table 2.1.

Table 2.1 B1023 Inworth Road Annual Average Traffic Flows – DCO Application ~#SEE TABLE IN ORIGINAL DOCUMENT#~

2.4 It is evident from Table 2.1 that the Scheme is predicted to have a significant material impact along the B1023 both at peak times and across the whole day. The step change in traffic levels along the B1023 can be expressed as an extra vehicle every 10 to 12 seconds at peak times.

2.5 A point to note from the information presented in Table 2.1 is the fact that the 'Do Nothing' modelling results indicate a reduction in the predicted traffic flows along the B1023 for the pm peak hour between 2027 and 2042. It would typically be expected that, as is

the case for the AM and AADT of circa 4%, traffic flows would increase over time and therefore the decrease points to a potential issue with the operation of the traffic model on a local level. Further investigation and explanation as to this unexpected decrease in the volume of traffic along the B1023 is therefore required to ensure that there is not an issue/fault with the model that is resulting in the misrepresentation of predicted traffic flows in the Messing and Inworth area.

2.6 During the pre-application consultation process MIAG were provided with predicted traffic flow information for the B1023 and this information is presented in Table 2.2.

Table 2.2 B1023 Inworth Road Annual Average Traffic Flows - Consultation #~SEE TABLE IN ORIGINAL DOCUMENT~#

2.7 It is evident from a comparison of the information presented in Table 2.1 and Table 2.2 that during the consultation stage the Scheme was predicted to have an even more significant impact along the B1023, both at peak times and across the whole day. The magnitude of the reduction in predicted traffic flows along the B1023 between the pre-application and DCO supportive material is highly concerning, with roughly a doubling of traffic during the am peak hour and over 50% during the full day.

2.8 NH informed MIAG that the reduction in the 'Do Something' predicted traffic flows from the initial modelling is due to the recoding of the speed limit for the B1023 link in the 'Do Something' traffic model. TPA assumed that for logical and accurate modelling purposes, the B1023 is formed of a number of links that relate to the existing speed limits for the road and the links for the B1023 with a 50mph limit have been recorded to a 30mph limit. If a single link for the full section of the B1023 has been used with one speed limit then this would raise further concerns regarding the modelling accuracy.

2.9 The results and associated explanation from NH confirm that distribution of traffic to this link in the model is less attractive due to a reduced journey speed and increased journey time, associated with the reduced speed limit coding. This means the model is highly sensitive and relies on a reduction in the current 50mph speed limit through the implementation of a Traffic Regulation Order ('TRO') as part of the Scheme.

### **Applicant's Response**

The Applicant can confirm that the traffic flows shown in Table 2.1 and the observation that traffic increases on the B1023 can be expressed as an extra vehicle every 10 to 12 seconds at peak time.

Regarding the predicted reduction in traffic on the B1023 for the PM peak hour between 2027 and 2042, the Applicant confirms that a very slight reduction from 846 vehicles per hour to 835 vehicles per hour is predicted. This is due to re-routing of traffic for reasons which include the predicted increase in delay at the junction between the B1023 and B1024 Feering Hill. Further south towards Tiptree, traffic is predicted to increase on the B1023 between 2027 and 2042 is predicted.

The reported traffic flows are taken from a strategic traffic model, not calculated from a simple uplift of existing traffic counts. Some level of re-routing is expected with changes in traffic demand. The future year traffic models take into account future housing and employment growth and the impact that any congestion arising from that growth might have on driver behaviour.

Regarding the change in traffic flows between the June 2021 Statutory Consultation and those reported in the DCO submission, a report summarising the reasons behind those changes was provided in Appendix OFH1A of the Deadline 1 Submission - 9.10 Applicants Response to Open Floor Hearing 1 - Rev 1 [REP1-009]. To confirm, the predicted 'with scheme' flows are approximately 20% lower in the DCO submission than were reported in June 2021.

Regarding the coding of the B1023 in the Applicant's traffic model, the B1023 between Tiptree and Feering Hill is formed of a several links each representing a different section of the B1023. As stated in Appendix OFH1A mentioned above: 'in line with standard traffic modelling practice, each road in the traffic model is assigned a 'speed-flow curve'. This defines how fast traffic will travel in the model when the road is quiet, and how traffic speed will reduce as the road gets busier. The speed-flow curve for each road is assigned based on observations of the road conditions and on traffic flow/speed data collected as part of the model development'.

As described further in the response to REP2-085-006 below, the modelled speeds on the B1023 were compared to observed data and shown to meet the Department for Transport's validation criteria for all time periods / directions other than northbound in the PM peak.

Section 2.8 of the Interested Party's response ("Transport and Highway Infrastructure Review") states that "NH informed MIAG that the reduction in the 'Do Something' predicted traffic flows from the initial

modelling is due to the recoding of the speed limit for the B1023 link in the 'Do Something' traffic model." To clarify, the changes made to the B1023 in the DCO version of the traffic model are those described in Appendix OFH1A mentioned above, that is

changes between the models used at June 2021 Statutory Consultation and DCO submission. These were changes to the base year traffic model (and retained in the Do Minimum and Do Something models) to reflect observed data. It is not a change between the Do Minimum and Do Something traffic models to reflect speed limit reductions that would be imposed as part of the proposed scheme.

The predicted traffic changes on the B1023 do not therefore rely on a reduction in the current 50mph speed limit through the implementation of a Traffic Regulation Order as part of the scheme.

**REP2-085-005**

### **Sub-Question**

2.10 The sensitivity of the model in terms of the quantum of traffic assigned to the B1023 under alternative speed limit coding is a serious concern to TPA, given the rural nature of the link, existing excess speed issues and the likelihood that future vehicle speeds will exceed the coded speed limit with little opportunity of speed limit enforcement.

2.11 This serious concern is exacerbated because ATC vehicle speed survey data for the B1023, see Appendix A indicates an existing excess vehicle speed issue with the 85th percentile recorded vehicle speed being circa 5mph above the posted speed limit. The proposed B1023 localised improvements, which are discussed in more detail later in this report, involve carriageway widening that would result in driver perception of the ability to drive faster.

2.12 TPA's professional opinion is that actual vehicle speeds along the B1023 will exceed the coded limit for these links and the consequence of this will be a significant underestimate of modelled traffic flows along the B1023 for the 'Do Something' scenario. The consequence of this will be a far greater impact on the Messing and Inworth area than that predicted by NH, which materially undermines the evidence base prepared by NH to support the Proposed J24 Works.

### **Applicant's Response**

Speed data in 2016 on B1023 in the vicinity of the proposed roundabout shows average speed of 39.9mph and 85%ile of 43.6mph,

in a 50mph speed limit, suggesting that drivers are moderating their speed in response to the width and alignment of the road.

TPA report Appendix A includes speed data at a point 65m north of Windmill Hill junction within the 30mph limit but where the character is still rural without frontage development. A footway is present on the east side but this stops just south of this point, so pedestrian flows are likely to be very low. Despite that rural character, average speed is 31.7mph, which is very close to the posted speed limit. The 85%ile speed is 35.9mph - which is very close to the lowest enforcement threshold of 35mph (10% + 2mph above the limit). There is very little difference between speeds of Northbound (entering the village) and southbound (leaving the village) traffic flows, which suggests that it is character determining speed selection.

While it would be desirable to observe total compliance with speed limits in villages such as this, that is not a realistic expectation based on typical national data. DfT report Vehicle speed compliance statistics for Great Britain: 2021 Published 16 June 2022 shows that nationally:

- 5% of vehicles exceed 30mph by more than 10mph i.e. the 95%ile speed in 30mph limits is 40mph.
- Average car speeds under free flow conditions were slightly above the speed limit for 30mph roads (31mph).

As most 30mph limits are urban in character, with more evident pedestrian and cycle activity than a rural character 30mph location like Inworth, this dataset is likely to combine higher speeds in rural 30mph areas and lower speeds on built-up urban 30mph locations.

This suggests that the existing speed profile is no worse than typical comparable locations.

The forecast increase in traffic flows would not be likely to have an adverse effect because speed is typically reduced as flow increases so at busier times, speeds are likely to be lower than existing, and at quiet times when free-flow conditions exist, there would be no change.

In addition, the increasing prevalence of vehicle technology including Intelligent Speed Assist (ISA); autonomous braking; lane keep assistance and other systems is forecast to reduce the number and severity of collisions over time, with or without the scheme.

Regarding the statement that actual speeds will exceed the coded limit and the consequence will be an underestimate of modelled traffic flows, the Applicant's response to REP2-085-004 confirms that the predicted traffic changes on the B1023 do not rely on a



reduction in the current 50mph speed limit through the implementation of a Traffic Regulation Order as part of the scheme. The traffic speeds used in the model are based on speeds which are shown to match well against observed journey time data, as described in response REP2-085-006 below.

**REP2-085-006**

### **Sub-Question**

2.13 Notwithstanding the questionable reliability of the predicted 'Do Something' traffic flows for the B1023, the increase in traffic volumes through the village of Inworth suggested by NH represents a significant and material level of impact. This level of impact along with the village setting and the narrow and rural nature of the B1023 is considered by TPA to represent severe harm associated with the Proposed J24 Works, as currently being promoted.

2.14 TPA recommend that NH are directed to consider further alternatives to the Proposed J24 Works and at the same time release the detailed link output data for the B1023 to enable a full understanding of the origin and destination of traffic along the B1023, by all parties. This information would provide an insight into potential changes to the Scheme, as currently presented, to negate the severe impact along the B1023.

2.15 The potential issues relating to the modelled 'Do Nothing' traffic flows led TPA to review the ComMA report, specifically for information relating to traffic count and journey time information, and this review highlighted further concerns in the modelling of the B1023.

2.16 In terms of traffic flow information there appears to be no data to support accurate validation of the model for the B1023, which one would expect given the Proposed J24 Works and the result being no confirmation of a reliable 'Do Nothing' model for the B1023.

2.17 The B1023 was selected as a route (Route 15) for validation of the model through a comparison of observed and modelled journey times, which is presented in Tables 11-13 to 11-15, pages 88 to 90, of the ComMA report. With reference to these tables, it can be seen that there is a wide variance between observed and modelled journey times along the B1023 for the three-modelled

periods, with a suggestion that the results satisfy the modelling test in the AM peak when it actually fails as the 15% threshold is exceeded.

2.18 The error in the reporting for Route 15 in the AM actually means that the journey times along this route fail the test in 50% of the modelled scenarios, with three of the four peak hour assessments failing. This failure rate, in terms of key supporting transport infrastructure given the Proposed J24 Works, is considered a major failing in the delivery of an accurate traffic model and has the potential to undermine the results used as the basis to support the Proposed J24 works.

#### Kelvedon Road

2.19 Plate 9.1 of the ComMA indicates a predicted increase in traffic flows along Kelvedon Road, in the range of 50 to 100 peak hour movements during the AM peak hour.

2.20 Neither the TA nor the ComMA provide any further details of the exact impact of the Scheme along Kelvedon Road, through Messing and to the Inworth Road. During the consultation phase, this information was provided to MIAG and this information is presented in Table 2.3.

Table 2.3 Kelvedon Road Annual Average Traffic Flows *###for image/table please see original document##*

2.21 With reference to Table 2.3, it is evident that the Proposed J24 Works will result in a significant increase in traffic movements along Kelvedon Road.

2.22 NH has wrongly dismissed this increase as not having a material impact that warrants mitigation because of the low level of existing and predicted 'Do Nothing' traffic levels. TPA strongly disputes this stance as lower base traffic levels result in a greater perception of increased traffic flows than when considered against a higher base position.

#### **Applicant's Response**

Regarding the origin and destination of traffic on the B1023, the Applicant has now provided this information in Appendix C of its response to Essex County Council's Local Impact Report [TR01600/EXAM/9.37]. Slides 21 to 35 of this appendix includes information on the origin and destination of traffic on the B1023 Kelvedon Road in Tiptree. As stated in the Applicant's response to

comment reference 19 to Tiptree Parish Council in the Deadline 1 Submission - 9.10 Applicants Response to Open Floor Hearing 1 - Rev 1 [REP1-009], “the majority of the predicted traffic on the B1023 through Inworth is traffic to or from the Tiptree area, using the proposed new junction 24 to access the A12. The proposed location of the new junction 24 means that, for example, traffic from Tiptree joining the A12 southbound could do so at junction 24 instead of travelling to Rivenhall End via Braxted Park Road. However, Braxted Park Road is intended to remain as a viable route for southbound traffic to access the A12 via junction 22. Although traffic from Tiptree itself is predicted to use the new junction 24 to join the A12 southbound, traffic from south-east of Tiptree (e.g., Mersea and other settlements) heading towards the A12 southbound is predicted to do so via Braxted Park Road (then to Rivenhall End, joining the A12 at junction 22).”

The Interested Party’s response also highlights several concerns with the Applicant’s traffic model. The Applicant has addressed each of these separately below.

Traffic flow data to support validation of the model for the B1023

Plate 4-1 of the Combined Modelling and Appraisal Report – Appendix B: Transport Model Package Report [APP-263] shows the count sites used in the calibration of the traffic model. This includes a site on the B1023, just north of its junction with Kelvedon Road to Messing. The traffic flows for this site passes the criteria set in Chapter 3 of the Department for Transport’s Transport Analysis Guidance (TAG) Unit M3.1 for all time periods for all vehicle classes.

In addition to the individual count, Plate 4-1 also shows a calibration screenline (SL-8) around Tiptree which was defined to ensure correct demand levels around this area. Traffic flows for this screenline as a whole and for individual link passes the TAG criteria for all peaks.

Journey time data to support validation of the model for the B1023

As stated by the Interested Party, Tables 11-13 to 11-15 of the Transport Model Package show the journey time validation of Route 15 in the traffic model. As shown in Plate 11-6 of that report Route 15 includes the B1023 between the centre of Tiptree and Feering Hill, and a small section of the B1024 between the junction with the B1023 and the existing A12 junction 24.

TAG Unit M3.1 states that the journey time validation should be undertaken by measuring the percentage difference between modelled and observed journey times, subject to an absolute maximum difference. It further states that the modelled times along

routes should be within 15% of surveyed times, or 1 minute if higher than 15% and this must be the case for 85% of all the routes in the model. Based on this the Route 15 passes in the AM and IP peaks, while it fails in the PM peak (albeit marginally in the SB direction by 9 seconds).

Further analysis of Route 15 for the section of B1023 only (i.e. excluding the small section of the B1024) shows that this section passes individually in both directions in AM and IP peak, and in the southbound direction in PM peak. The only period it fails to meet the TAG criteria is in the northbound direction in the PM peak, where the model times are quicker than the observed.

Overall, the traffic model overall validates well against journey times, exceeding the TAG criteria with more than 85% of journey time routes within the required criteria

The Applicant strongly disputes the Interested Party's claim that this is a major failing in the delivery of an accurate traffic model or that it has the potential to undermine the results used to support the proposed scheme.

**Traffic flow on Kelvedon Road**

Information confirming the modelling accuracy of Kelvedon Road in Messing is provided in the Applicant's response to REP2-085-008.

**REP2-085-007**

**Sub-Question**

2.23 Significant sections of existing narrow single lane roads that are not kerbed and a number of sharp turns, is considered unsupportive of an increase in traffic levels.

**Applicant's Response**

The forecast traffic flow is within the traffic volume that the4 existing road can accommodate, and does not change the nature of the road for users travelling along it or in adjacent properties.

REP2-085-008

### Sub-Question

2.24 Given this and concerns previously expressed around the accuracy of the model in relation to the assignment of traffic flows predicted to be attracted to Junction 24, it is TPA's professional opinion that the impact of this traffic through the village of Messing has the real potential to be considered severe. In practical terms, this unacceptable impact should be avoided by an alternative package of works or if this is not possible, the impact should be fully mitigated.

2.25 It is not possible to report on the modelling accuracy as far as Kelvedon Road is concerned given the lack of existing traffic count information for the road and it not being a route checked for accuracy through journey time surveys. This said, concerns regarding the accuracy of the modelling as far as the B1023 is concerned have the potential to hold true for Kelvedon Road.

2.26 The limited consideration of the existing situation and potential impacts to both Lodge Road and Harborough Hall Road raise further serious concerns regarding the level of consideration of the likely true impacts of the Scheme in and around Messing.

### Applicant's Response

The proposed scheme's traffic model predicts an increase in flow of two vehicles per minute through Messing during the highest peak hour as a result of the scheme. As this is well within the capacity of the local road network, the Applicant is not proposing any further interventions beyond those proposed for the B1023

Regarding the modelling accuracy on Kelvedon Road, the Applicant confirms the predicted traffic changes in Table 2.3 of the Interested Party's response. Although traffic count data was not available to confirm the validation of Kelvedon Road when the traffic models were developed, traffic count data from May 2022 has subsequently been provided by Essex County Council. This takes the form of two one-day junction turning count surveys on 10th and 11th May 2022.

This data shows that the traffic model validates well on Kelvedon Road. It shows a total of 46 vehicles per hour in the AM peak period and 43 vehicles per hour in the PM peak period. This meets the criteria set for the accuracy of modelled vs observed traffic

flows set out in the Department for Transport's Transport Analysis Guidance Unit M3.1

In terms of journey times, observed journey time data on Kelvedon Road was taken into account when coding the traffic model network in that area.

The Applicant would re-iterate that, as outlined in the responses to REP2-085-004 and REP2-085-006, the traffic model meets Department for Transport criteria for its accuracy compared to observed traffic conditions, and its predictions of future traffic flows were prepared in line with Department for Transport guidance. The Applicant considers its assessment of traffic impacts to be sufficiently robust.

**REP2-085-009**

### **Sub-Question**

#### 3 Environmental Impacts Noise

3.1 Figure 12.8 of the Environmental Statement (Document Reference: TR010060/APP/6.2) provides a number of Noise Change Contour Maps for the scheme. With reference to Sheet 7 of 11, it can be seen that the Scheme is predicted to result in an increase in road traffic noise through Inworth of between 1.0dB and 2.9dB, whilst for Messing this increase is predicted to exceed 5.0dB through much of the village.

3.2 LA111 (Noise and Vibration) of the DMRB quantifies increases in noise levels as being Minor if in the range of 1.0dB to 2.9dB, Moderate if in the range of 3.0db to 4.9dB and Major when above 5.0dB. This means that residents of Inworth will be subjected to a minor increase in noise levels because of the Scheme and residents of Messing will experience a Major impact.

3.3 Figure 12.5 of the Environmental Statement provides a more detailed assessment of the likely effects of the expected changes in noise levels associated with the Scheme, expressed in terms of Significant Observed Adverse Effect Level ("SOAEL"), which is quantified as the level of noise exposure above which significant adverse effects on health and quality of life occur.

3.4 With reference to Figure 12.5 and the supporting information contained within Chapter 12 (Noise and Vibration) of the Environmental Statement (Document Reference: TR010060/APP/6.1) it can be seen that four dwellings within Inworth are predicted

to exceed the minimum SOAEL level, with one being adversely impacted day and night. The situation within Messing is predicted to be even worse with 71 dwellings negatively impacted, of which 16 will experience a moderate impact and 55 will experience a major impact.

3.5 The Noise Policy Statement for England (NPSE) sets out the Government's policy on noise. The first aim of the policy is to avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.

3.6 The second aim of the NPSE is to mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development. This second aim refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life Messing and Inworth Action Group Limited A12 Chelmsford to A120 Widening Scheme, DCO Application (TR010060)

Transport Planning Associates 2207-043/TN/01 | February 2023 10 | 25

3.7 In both instances, the detrimental change in noise impacts is a direct result of increases in traffic flows on local roads. Therefore, based on the findings of the noise work prepared by NH in support of the Scheme, the impact on residents of Messing and Inworth should be considered Severe in terms of noise, with further work necessary to determine a more appropriate solution for the Scheme on a local level.

3.8 A final point to note relates to the concerns raised in Chapter 2 of this report relating to projected increases in traffic flows through Inworth and Messing. The underestimating of predicted traffic flows for the local area in the 'Do Something' scenario will influence the results of the noise assessment for the Scheme and would result in increased levels of road traffic noise than the levels currently predicted.

### **Applicant's Response**

The Applicant acknowledges that there are predicted to be significant adverse effects within Messing due to an increase in noise caused by an increase in traffic flow. The proposed scheme's traffic model predicts an increase in flow of two vehicles per minute

through Messing during the highest peak hour as a result of the scheme. As this is well within the capacity of the local road network, the Applicant is not proposing any further interventions beyond those proposed for the B1023.

The Applicant considers that the proposed scheme does meet the aims of the Noise Policy Statement for England (NPSE) and this is outlined in paragraph 12.13.8 of Chapter 12: Noise and Vibration, of the Environmental Statement [APP-079]. It should be noted that the three aims within the NPSE are the origin of the aims listed in paragraph 5.195 of the National Policy Statement National Networks(NPSNN). With regard to Messing, the Applicant has explained within paragraph 12.11.47 of Chapter 12: Noise and Vibration why, in the context of sustainable development, it is not possible to mitigate the adverse effects predicted within Messing. The Applicant disagrees that the impacts would be 'severe'. While the change in noise is within the moderate (3 to 5 dB(A)) or major (>5 dB(A)) magnitude category in accordance with DMRB LA111, the absolute noise level at all dwellings and other sensitive receptors within Messing will remain below the Significant Observed Adverse Effect Level (SOAEL), which is the level above which significant adverse effects on health and quality of life occur.

**REP2-085-010**

### **Sub-Question**

#### **Air Quality**

3.9 Chapter 6 (Air Quality) of the Environmental Statement (Document Reference: TR010060/APP/6.1) details the air quality assessment work undertaken as part of the Scheme proposals. With reference to Figure 10 and Appendix 6.5 that support Chapter 6, it is noted that the predicted increase in pollutants as a result of the Scheme will be below the air quality threshold target and imperceptible. A position that TPA does not dispute.

3.10 The air quality modelling does not appear to extend as far as the village of Messing and therefore it is not possible to provide any specific comment on potential air quality matters. This said, given the low base traffic flow levels and predicted proportional increase the impact on Messing is also expected to be imperceptible.

3.11 Changes in traffic levels across the local network because of matters raised by this report will require local air quality matters to



be reassessed and this reassessment should be extended to cover the village of Messing.

### Applicant's Response

Point 3.10 refers to the extent of the air quality modelling assessment. The traffic data used for the air quality assessment included Messing and surrounding road links. However, the change in traffic flows (owing to the proposed scheme) on road links within Messing were below the threshold changes (in accordance with DMRB LA 105) required for inclusion within the air quality assessment (i.e. a change in light duty vehicles of >1000 per day; >200 HGVs per day) The Annual Average Daily Traffic (AADT) flows passing through the village of Messing used in the air quality assessment were 270 in the Do Minimum and 1103 in the Do Something. The change being 833 AADT and therefore below the thresholds stated above.

Receptors located within Messing would not therefore experience significant air quality effects. On this basis there would not be a requirement to undertake a detailed assessment.

As outlined in the responses to REP2-085-004 and REP2-085-006, the traffic model meets Department for Transport criteria for its accuracy compared to observed traffic conditions, and its predictions of future traffic flows were prepared in line with Department for Transport guidance. The Applicant considers its assessment of traffic impacts to be sufficiently robust. The Applicant therefore disagrees that matters raised by the Interested Party's report would require traffic volumes and therefore local air quality matters to be reassessed.

**REP2-085-011**

### Sub-Question

#### Highway Safety

3.12 The lack of any reporting on highway Safety implications associated with the Proposed J24 Works is considered an omission by NH and it is believed that such an assessment for the local road network should form part of the DCO evidence base. Investigation of the existing road network in and around Inworth and Messing identifies significant sections of narrow single lane

roads that are not kerbed and there a number of sharp turns, meaning the roads are considered unsupportive of an increase in traffic levels without also acknowledging a worsening of road safety.

3.13 With reference to the Crashmap website it has been determined that there have been two serious accidents along the B1023 within the most recent five year period , one to the north of Kelvedon Road and one north of Windmill Hill. Increases in traffic volumes to the extent predicted by NH is expected to have a negative impact on a route with a historic accident history, which further supports the need for a detailed local assessment.

### **Applicant's Response**

The forecast traffic flow is within the traffic volume that a road such as B1023 can accommodate, and does not change the nature of the road for users travelling along it or in adjacent properties.

Regarding the reported personal injury collisions, neither seems to be of a type that the proposed scheme would make more likely. The northern incident is in the area where the form would be substantially altered by the roundabout layout. The southern incident was a single-vehicle-loss-of-control event on icy roads, despite the road being on the advertised winter-maintenance route network. Changing traffic flows would not increase the likelihood of such an incident which typically results from driver error in the absence of other vehicles.

The scheme has been subject to the necessary safety governance including Road Safety Audit and Walking, Cycling, Horse-riding Assessment and Review which cover both strategic and local network elements. Arising issues have been addressed and design development and safety governance will continue during detailed design.

**REP2-085-012**

### **Sub-Question**

Severance

3.14 Chapter 13 (Population and Human Health) of the Environmental Statement (Document Reference: TR010060/APP/6.1)

includes details of severance resulting from the proposed Scheme. At Paragraph 13.15.34, the report states that there is high community severance either side of the B1023 in Inworth in the 'Do Minimum' scenario and an actual and perceived increase in Severance because of the Scheme.

3.15 Paragraph 13.18.80 concludes that community severance at Inworth is negative but NH do not consider it significant in population health terms, despite it being considered significant for some individuals, due to:

- the relatively small population affected; - uncertainty as to whether the traffic increases would be perceptible over the existing relatively high traffic flows; -limited good quality evidence of links to health outcomes; and -the relative health and resilience of the community exposed.

3.16 Evidence to support the stance of NH in terms of this impact not being significant is not substantiated in any detail and therefore should not be taken to demonstrate that the Proposed J24 Works will not lead to significant severance through Inworth village. TPA dispute the NH conclusion that the level of severance will not be significant in health terms and believe that additional mitigation measures should be considered and brought forward.

### **Applicant's Response**

Evidence for health outcomes associated with community severance is provided in section 8 of Appendix 13.1 of the Environmental Statement [APP-153], which also provides a commentary on how the evidence is interpreted to inform the health assessment. Further information on how judgements of significance are made in the health assessment is set out in paragraph 13.12.39. It should be noted that the environmental impact assessment (EIA) considers significance in terms of population health outcomes and so seeks to make a judgement on whether the overall health status of the population in the study area would be significantly affected or not.

With regards to Inworth, the Applicant has identified that there would be an increase in severance due to traffic, as noted in Messing and Inworth Action Ground's response, and accepts that this is an issue of local concern albeit we have not assessed it as significant in terms of population health outcomes for the study area.

As noted in the Applicant's response to Relevant Representation RR-168-002 [REP1-002], the Applicant has undertaken extensive

traffic modelling to understand the impact of the proposed scheme on the strategic and local road network. Details and the methodologies for these assessments can be found in the Transport Assessment [APP-253]. The forecast increase in traffic on the B1023 Kelvedon Road through Inworth as a result of the proposed scheme is equivalent to approximately an additional five vehicles per minute in peak hours. The Applicant has proposed upgrades to the B1023 to address a number of concerns raised by both the community and identified in the proposed scheme's assessment. The proposed upgrades include:

- widening of the carriageway in places to address historical pinch points by allowing two large vehicles to pass one another safely around bends and
- to improve the capacity of the existing road to cater for the proposed scheme's forecast increased traffic volumes.

Analysis, including microsimulation of the road, has confirmed that the proposed scheme would address both the historical issues caused by the existing pinch-points as well as those caused by the projected increase in traffic. Further details of this can be found in Section 3 of the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095].

The traffic model for the proposed scheme predicts a small increase in traffic flow that equates to two vehicles per minute through Messing during the highest peak hour. As this is well within the capacity of the local road network, the Applicant is not proposing any further interventions beyond those proposed for the B1023.

**REP2-085-013**

### **Sub-Question**

4 Proposed Junction 24 Improvements 4.1 The Proposed J24 Works are intended to facilitate improved access between the proposed scheme and neighbouring towns, such as Kelvedon and Tiptree. An element of the Proposed J24 Works is the creation of a new roundabout on the B1023, with the purpose of the roundabout being to connect the single carriageway link road from Junction 24 with the realigned B1023 Inworth Road and Kelvedon Road.

4.2 The proposed J24 Works are detailed on Sheet 14 and Sheet 20 of the 'General Arrangement' Plans [Document Reference: TR010060/APP/2.9] prepared by NH for the DCO Application. An overview of these works is shown in Figure 4.1.

#### Figure 4.1 – Overview of Proposed Junction 24 Works

Reproduced from the DCO Environmental Statement [Application Document Reference: TR010060/APP/6.1]

##### Junction 24 Design

4.3 The Proposed J24 Works consists of a two-tiered dumbbell layout west of the B1023 Inworth Road along with a new single carriageway link between the southern roundabout and the locally realigned B1023 Inworth Road.

##### Kelvedon Road

##### Hinds Bridge

4.4 The design proposal with linked roundabouts to the northern and southern side of the A12 would provide all movement access to the A12 via the proposed connecting link to the B1023.

4.5 The design reference for the roundabouts is CD116 'Geometric Design of Roundabouts', which forms part of The Design Manual for Roads and Bridges ("DMRB"). DMRB is a suite of documents that contain design requirements and advice relating to works on motorway and all-purpose trunk roads, ie schemes under the management of NH.

4.6 Information prepared by NH to support the design of Junction 24 does not indicate any departures from design standards that are contained within CD116, which is as one would expect for a new off-line highways proposal.

4.7 The 'Traffic Regulation Measures – Speed Limit' report [Document Reference: TR010060/APP/2.3.1] details that the proposed A12 slip roads at Junction 24 are intended to be subject to variable speed limits, with the actual roundabouts and the link road to the B1023 being subject to a 40mph speed limit.

4.8 A review of the preliminary General Arrangement drawings for Junction 24 does not raise any concerns in terms of the final design being fully CD116 compliant, especially given the land in the area that forms part of the Order land.

#### **Applicant's Response**

The Applicant notes the Interested Party's comments.

REP2-085-014

**Sub-Question****B1023 Inworth Road Roundabout**

4.9 The roundabout is proposed to have a 50m Inscribed Circle Diameter (“ICD”) with four arms that connect to the A12 link road, the B1023 north, Kelvedon Road, and the B1023 to Inworth. The roundabout and the approach arms, with exception of the previously mentioned A12 link road, are proposed to be restricted to a 30mph speed limit.

4.10 The roundabout would fall outside of the A12 network and would be under the future management of ECC, rather than NH. TPA has significant experience of working on projects where ECC are the LHA and whilst it is acknowledged that they operate their own design Standards, The Essex Design Guide, it is our experience that when it comes to roundabout design CD116 is always given as the point of design reference.

4.11 In terms of the links that connect with the proposed roundabout it is considered appropriate that the sections that immediately precede the roundabout, ie Inworth Road and Hinds Bridge, will be designed with reference to the requirements of CD116 and other relevant sections of the DMRB. Messing and Inworth Action Group Limited A12 Chelmsford to A120 Widening Scheme, DCO Application (TR010060)

Transport Planning Associates 2207-043/TN/01 | February 2023 14 | 25

4.12 Further to this and given the rural nature of the roundabout approach roads it is considered inappropriate to classify these roads as ‘streets’ and as such the more relaxed design guidance contained within the Essex Design Guide and Manual for Streets is not appropriate and DMRB should always be the ‘go to’ design guidance.

4.13 Given the rural nature of the proposed Inworth Road roundabout, it is considered wholly inappropriate to classify the approach roads as streets to justify the use of reduced visibility splay criteria, as outlined in Manual for Streets, when DMRB should be used to design all elements of the proposed junction.

4.14 A review of the preliminary junction design against standards contained within CD116 raises serious concerns that a fully

design compliant B1023 roundabout, without any departures from design standards has been proposed and/or can be delivered. This position is taken with regard to the following matters:

The siting of the roundabout and land contained within the Order Limit would suggest sub- standard forward visibility standards for the B1023 northern arm, when compared against the relevant requirements in CD116.  Forward visibility and an existing private access to the north of the proposed roundabout do not appear to have been fully considered;  The initial design work does not appear to have fully considered design requirements relating to crossfall and superelevation, the result of this being an increased safety risk due to potential adverse cambers and/or inadequate superelevation.  The design proposes a segregated left turn lane (“SLTL”) from the southern arm of the B1023 to the A12 Inworth Link Road, the design of which does not appear to accord with the relevant design standards.

4.15 TPA has reproduced the proposed roundabout design (2207-043 SK02) to help understand the potential design issues outlined above, with a copy of this drawing presented within the drawings section of this report.

4.16 With reference to this drawing, it is evident that land outside of the Order Limit along with buildings/structures located on this cause a significant restriction on forward visibility for vehicles entering or leaving the northern arm of the B1023.

### **Applicant’s Response**

The intention of the proposed Inworth Road roundabout is to signify the transition from the Strategic Road Network to the local road network and encourage drivers to behave in a manner that is appropriate to the network they are on. The approaches and exits of the proposed roundabout have been designed for a speed limit of 30mph in accordance with Manual for Streets which is the appropriate standard for local roads which are not solely focused on the conveyance of vehicular traffic. Designing the roundabout links for a speed limit of 50mph would give drivers the wrong impression about the local road nature of the B1023 and Kelvedon Road and could encourage drivers to accelerate as they approach the proposed roundabout.

The current average observed speed along the B1023 between the existing A12 and Inworth village is 30mph in the northbound direction and 31mph in the southbound direction in the interpeak hours (10:00 to 16:00). This is consistent with the approach speed designed for at the roundabout.

Regarding visibility, 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 northern arm of the roundabout is subject to a speed limit of 30mph and a design speed of 48kph, which achieves the minimum requirement of 43m stopping sight distance and 41m horizontal curvature in advance of the entry flare. 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.

The design presented in the application for the development consent order (DCO) is a preliminary design and the horizontal and vertical geometry will be further considered in the detailed design stage. 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 included within the limits of deviation.

**REP2-085-015****Sub-Question**

4.17 CD116 sets out the requirement, or otherwise, for an initial assessment based on predicted traffic flows to determine the need for a Segregated Left Turn Lane (SLTL) to supplement a traditional giveway roundabout approach. This assessment has not been provided to confirm the need and design form of the proposed SLTL.

4.18 The design of the SLTL takes the form of a segregated lane that is followed by a requirement to give way to the mainline traffic flow. Poor design and/or bad driver behaviour can lead to accident safety issues with this form of junction as opposed to a free flow merge and subsequent lane reduction.

4.19 SLTL's are typically introduced in to the design of a roundabout where there is a capacity issue with that arm of the roundabout. The SLTL effectively removes the traffic making the left turn from the junction modelling and capacity analysis, without this reduction in traffic the junction would operate over capacity.

4.20 The introduction of the SLTL raises material concerns, these being:



i. no explanation is provided for the proposed inclusion of the SLTL rather than improved roundabout geometry to facilitate a more standard roundabout design with increased capacity to negate the need for the SLTL; ii. there is no demonstration of the design considerations of the point where the SLTL is proposed to connect with the new A12 link road, a single lane giveway being promoted over and above a dedicate free flow merge; and iii. there are safety concerns relating to the proposed design, ie approach angle and associated driver visibility.

4.21 SLTL's work best when they allow a free flow entry on to a section of dual carriageway, which is not the case in this instance as vehicles approaching the end of the SLTL will have to give way to traffic on the link to Junction 24. Issues with being able to join the link to Junction 24 from the SLTL in a safe and efficient way may result in traffic using the roundabout and having priority over traffic merging from the SLTL. The consequences being that the capacity analysis of the roundabout may not accurately represent the actual situation, and no indication is given as to capacity estimates for the SLTL.

4.22 The curvature of the A12 Inworth Link Road and the SLTL contribute to provide a very acute entry angle of 50, such an acute angle is not compliant with DMRB standards and would require drivers to look back over their shoulders, presenting opportunities for missed vehicles and an associated increase in the risk of accidents.

4.23 Crossfall and superelevation needs to be considered as part of the DCO Application process to ensure that the relevant standards are complied with to ensure a safe design solution is being progressed. Failure to do this at the current stage could result in subsequent design changes with unassessed impacts and/or substandard design elements. Costing of the scheme will be materially impacted by any future design changes.

### **Applicant's Response**

The Segregated Left Turn Lane (SLTL) of the proposed Inworth Road Roundabout was introduced based on the statutory consultation traffic flows, these flows were checked against the requirements of CD116.

Provision for SLTL was modelled in traffic microsimulation software and was found to improve the capacity of the proposed Inworth Road Roundabout given local constraints. 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.

REP2-085-016

**Sub-Question**

4.24 Street lighting will be required as part of the finally constructed scheme for the proposed roundabout and as yet there does not appear to be any consideration of this in terms of impact on local properties and wider environmental considerations.

4.25 Similarly, there is no mention of any proposals for the introduction of further street lighting along the B1023 to support the proposed improvements and speed limit reduction. Given the rural nature of the B1023 and the potential environmental impacts of street lighting on both the village setting and rural hinterland, it is considered essential that adequate consideration is given to such matters at this time so any unacceptable constraints can be mitigated.

**Applicant's Response**

The Environmental Statement Chapter 8: Landscape and visual [APP-075] considers the significance of effect of both day and night-time changes for landscape and visual receptors in line with the requirements of the Design Manual for Roads and Bridges LA 107 Landscape and Visual Effects, Revision 2 (Highways England, 2020). The assessment considers effects of construction lighting, highway lighting and vehicle lights.

Representative viewpoint 17, assessed with Appendix 8.3 Visual effects schedule of the Environmental Statement [APP-121], considers the view west from residential properties along B1023 Inworth Road. The assessment concludes that in year 1 of operation there would be effects of very large adverse significance for residents because loss of vegetation along the existing A12 would exacerbate views of the widened highway corridor, and because Inworth Roundabout, including lighting and signage adjacent to the B1023, and attenuation ponds would be readily apparent in the foreground. The assessment concludes that in year 15 of operation there would be effects of large adverse significance for residents. Whilst mitigation planting would have established to screen views of traffic and gantries on the A12 and soften the prominence of the proposed scheme, Inworth Roundabout and new lighting at Inworth Roundabout and at J24 would remain noticeable in the view in winter and in summer.

The lighting effects on landscape character are also considered within the assessment of effects on F1 Messing Wooded Farmland,

presented within Appendix 8.2 Landscape effects schedule of the Environmental Statement [APP-120]. The assessment notes that during operation, new lighting at J24 and at Inworth Roundabout would increase artificial light levels south-east of Kelvedon, and that the introduction of lighting at J24 would result in noticeable residual change to the existing landscape character.

However, whilst junction 24, Inworth Roundabout and associated slip roads west of Inworth Road would be lit, no lighting columns are proposed along the B1023 south of junction 24.

**REP2-085-017**

### **Sub-Question**

#### B1023 Inworth Road Improvements

4.26 To facilitate the predicted increase in traffic using the B1023 Inworth Road, NH are proposing a package of works along the B1023, from the proposed B1023 Inworth Road roundabout to the northern part of the village.

4.27 The 'Consultation Report – Annex J2: S47 Consultation Material' [Document Reference: TR010060/APP/5.2] states that a "detailed technical assessment has taken place to consider what interventions are required to ensure that Inworth Road can manage the increase in traffic". The document also indicates "a safety assessment has taken place and concluded that, with our proposed interventions, the road can support the traffic".

4.28 The proposals are to widen a number of pinch points along Inworth Road by between 0.3m and 2m. This includes widening straight sections of the road to provide a minimum of 6.1m carriageway width and widening bends to accommodate two large vehicles passing in opposite directions. New drainage is proposed as part of the widening proposals. An overview of these works and the pinch point locations is shown in Figure 4.2.

Figure 4.2 –Proposed B1023 Inworth Road Works ###for image/table please see original document##

4.29 The 'Traffic Regulation Measures – Speed Limit' report [Document Reference: TR010060/APP/2.3.1] details that the B1023 Inworth Road is proposed to be subject to a 30mph speed limit, both through the village and to the B1023 Inworth Road roundabout.

<b>Applicant's Response</b>	
The Applicant notes the Interested Party's comments.	
	<b>REP2-085-018</b>
<b>Sub-Question</b>	
4.30 To assess fully the proposed pinch point improvement scheme a more detailed and larger scale design drawing is required, as opposed to the one currently presented at Sheet 20 of the General Arrangement Drawings.	
<b>Applicant's Response</b>	
The General Arrangement Drawings are scaled and presented in accordance with the requirements set out in the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009. In addition to the plans where the extent of widening is shown, an explanation of the proposed widening dimensions is given in considerable detail within Section 6.5 of 6.3 Environmental Statement - Appendix 3.3: Junction 24, Inworth Road and Community Bypass Technical Report [APP-095]	
	<b>REP2-085-019</b>
<b>Sub-Question</b>	
4.31 From an initial assessment of the design drawings TPA has concerns that the proposed pinch point widening works will eliminate the existing pinch points that dictate reduced vehicle speeds without fully accommodating the passing of large road vehicles. The result of this could manifest as increased vehicle speeds due to a widened carriageway along with potential conflict between opposing vehicles.	
4.32 The earlier referenced model link speeds of 30mph, which have resulted in a reduced level of forecast traffic flows for the	

Scheme along the B1023 Inworth Road, are wholly reliant on vehicles travelling along the B1023 Inworth Road conforming to the posted speed limit. This scenario is not expected to materialise given the existing excess speed issues through the village and the fact that the proposal relies on rural sections of road without any built form to also be restricted to 30mph. Even with the Messing and Inworth Action Group Limited A12 Chelmsford to A120 Widening Scheme, DCO Application (TR010060)

Transport Planning Associates 2207-043/TN/01 | February 2023 18 | 25

required street lighting to support the 30mph limit and 30mph roundels along the road, it is expected that vehicles speeds along the B1023 will materially exceed the 30mph speed limit being proposed.

### **Applicant's Response**

Regarding the pinch-point easing proposals, these have been confined to the minimum extent of widening and of longitudinal extents that is considered necessary to reduce conflict that pinch-points cause, and to avoid increased speed and/or decreased caution by drivers.

Regarding the statement that actual speeds will exceed the coded limit and the consequence will be an underestimate of modelled traffic flows, the Applicant's response to REP2-085-004 confirms that the predicted traffic changes on the B1023 do not rely on a reduction in the current 50mph speed limit through the implementation of a Traffic Regulation Order as part of the scheme. The traffic speeds used in the model are based on speeds which are shown to match well against observed journey time data, as described in response REP2-085-006.

Regarding the suggestion that street lighting is necessary, the change in flow does not materially change the route form, and it has not been deemed necessary by Essex County Council as Highway Authority. Speed limit repeater signing (yellow-backed signs at intervals through the 30mph limit) is in place, and Essex CC has chosen not to incorporate roundels on the road to reinforce these.

As stated above (REP2-085-005), increased traffic flows typically reduce traffic speed, and as such, it is not likely that speeds will increase as a result of the A12 scheme proposals.

**REP2-085-020**

**Sub-Question****5 Alternative Junction 24 Proposals Background**

5.1 As previously mentioned, the Proposed J24 Works are being promoted on the basis that the provision of a “junction close to Inworth Road provides an overall benefit to the proposed scheme, as it provides better connectivity between Tiptree and the SRN. In addition, it reduces the volume of strategic traffic making journeys on the wider Local Road Network in comparison to the previous design from 2017”, Paragraph 3.3.20 of the CftS.

5.2 Noting the stated benefits of the Proposed J24 Works, it is next considered appropriate to understand the alternative considerations for the location and form of the proposed Junction 24. With reference to Page 21 the Assessment of Alternatives (Application Document Reference: TR010060/APP/6.1), NH state that “early design options located the proposed J24 offline to the south of the existing J24” with the location being moved due to the benefits set out in Paragraph 4.1, along with reduced visual impact on Prested Hall, which is a grade II listed building.

5.3 Potential further alternative locations along with alternative design considerations for Junction 24 are unknown to MIAG and TPA. NH are therefore respectfully requested to provide a detailed review of option testing and the decision process that led to the Proposed J24 Works now being promoted.

**Applicant's Response**

A number of historically bypassed settlements along the A12 are served by partial movement junctions; junction 23 and junction 24 fall into this category and these existing locations and arrangements encourage drivers to use the B1024 through Kelvedon and Feering today to access the A12.

An exercise was undertaken to assess the best holistic location for the proposed all-movements Junction 24 early in the preliminary design stage and was submitted as Appendix D of the Scheme Assessment Report Addendum [REP1-006]. This assessment compared the replacement of the existing junction 24 partial-movement junction with a new all-movements junction in a similar location (similar to what is being proposed at Junction 22), and the location proposed in the DCO materials, with or without an

additional northern link to the B1023.

Option F, which is broadly the proposed all-movements junction 24 within the DCO materials, intercepts traffic on the B1023 from needing to use Gore Pit junction in Feering or Braxted Park Road to access the A12 and was selected as the best performing option. It provides economic benefits to the scheme in terms of journey times savings, and is expected to reduce casualty rates on local roads where traffic is reduced as a result of this junction, particularly in Kelvedon High Street, London Road Feering and Braxted Park Road, compared to upgrading the junction in its current location. Stakeholder requests for the junction to reduce traffic through Kelvedon High Street, move the junction south and connect directly to Inworth Road are all achieved with this option.

**REP2-085-021**

### **Sub-Question**

An Alternative

5.4 In response to concerns regarding the predicted significant increase in traffic flows along the B1023, MIAG has considered available alternatives that would negate this predicted increase in traffic.

5.5 Having considered a number of options MIAG felt an alternative alignment of the proposed B1023 Link Road, which starts to the south of the village was a more favourable solution. This is a scheme similar in design principles to some of the earlier Option Testing undertaken by NH.

5.6 TPA has developed the initial design proposal previously promoted by MIAG, drawing 2207-043 SK01a,) a copy of which is presented within the drawings section of this report. The design for this alternative is based on the design principles of the DMRB.

5.7 The overriding benefit of the MIAG alternative is a reduction in traffic movements through the villages of Inworth and Messing, in terms of existing traffic using these routes and traffic that would reroute because of the NH proposals. Including the prospect of Messing being used as a 'rat-run' to connect from the new Junction 24 to the B1022 Maldon Road and vice-versa.

### **Applicant's Response**

As previously noted to the Interested Party in response to Relevant Representation RR-168 at Deadline 1 [REP1-002] and response to issues raised at Open Floor Hearing 1 Reference 33 [REP1-009], the Applicant has reviewed this alternative proposal provided by Messing Inworth Action Group and included this in the options assessment undertaken in the Junction 24, Inworth Road and Community Bypass Technical Report in Appendix 3.3 of the Environmental Statement [APP-095]. The Applicant maintains the position outlined in the technical report.

**REP2-085-022**

### **Sub-Question**

#### NH Response to MIAG Proposal

5.8 NH has previously dismissed the MIAG Alternative Proposal because of the suggested impact of traffic flows in and around Tiptree and the increased scheme costs. It is also acknowledged that any such alternative proposal would affect the Order Limit in terms of land requirements.

5.9 Details of these impacts were shared with MIAG by NH in the form of a PowerPoint Presentation dated 22 September 2022, a copy of which is presented at Appendix B. MIAG feel that the details summarised in the PowerPoint Presentation have never been presented clearly and no accurate responses have been provided to concerns raised, in terms of both the Proposed J24 Works and the technical work being used to justify these works.

5.10 Dismissing the MIAG Alternative Proposal because of financial implications is considered premature and unjust given the overall magnitude of the scheme and its estimated cost of between £1,045m to £1,268m. Increased costs of £10m to £12m represent less than 1% of the estimate costs of the Scheme and fall well within the estimated cost range.

5.11 The NH PowerPoint Presentation included an overview of predicted changes in traffic movements due to the MIAG Alternatives Proposal without any real context or information around the predicted increase in traffic flows around the north of Tiptree. TPA acknowledge that some local rerouting may become evident as a result of improved B1023 journey times but would question the level predicted and what, if any wider measure were considered to limit these flow changes. The change in traffic flows



and the associated environmental impacts form the basis to dismiss the proposal; but the more significant impacts on Inworth and Messing because of the Scheme are accepted as a by-product and not sufficient to consider other alternatives.

5.12 TPA are concerned that elements of the scoring used by NH to discount the Main Alternative is subjective and potentially erroneous, especially given the impact on local traffic movements associated with the proposed closure of the existing Junction 23 and associated traffic modelling. For example, is the desire of NH to close Junction 24 directly impacting traffic flows around the north of Tiptree and the counting against the MIAG proposed alternative.

### **Applicant's Response**

The Applicant maintains the position regarding the impact of traffic flows in and around Tiptree, increased scheme costs and additional land take requirements as the justification for not pursuing the Main Alternative.

Regarding the comments from the Interested Party about the PowerPoint Presentation, the Applicant has reached out on several occasions to the Parish Council, representatives of which are also members of the action group, to explain the outcomes of the technical assessment of the Main Alternative. The Applicant remains happy to present to the Parish Council and the action group.

Regarding financial implications of the Main Alternative, the Applicant does not agree that cost should be taken out of the decision-making process, but would reaffirm that the Main Alternative does not provide benefits across the whole scheme area that are considered enough to justify the additional costs. The Applicant maintains the conclusion reached in the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095] that it is more appropriate to provide a range of measures to improve an existing B road that currently acts as a strategic Priority 2 road within the Essex local highway network, than to provide an alternative parallel route through the countryside that provides the same purpose.

Under the alternative proposals, traffic would increase on the B1023 south of the proposed bypass compared to the proposed scheme without a bypass. As noted in the National Highways Powerpoint slides from 22 September 2022 (included in the TPA report as Appendix B), this is not just due to traffic no longer using Messing as a cut-through, but also because a bypass would make A12 junction 24 more attractive for traffic coming from Tiptree, and therefore increase traffic between Tiptree and the bypass. Although not shown in the Powerpoint slides, the increase in traffic between Tiptree and junction 24 is due to traffic re-routing away from routes between Tiptree and A12 junction 22 (via Braxted Park Road and Rivenhall End) and between Tiptree and A12 junction

25 (via the B1022).

The Applicant has considered the associated environmental impacts of the Main Alternative proposal and found the impact to be more significantly adverse compared to the DCO proposal. The expected noise effects of the bypass option exceed the Significant Observed Adverse Effect Level (SOEAL) in more instances. This is the noise level above which significant adverse effects on health and quality of life can occur. The bypass would also require a minimum of 40% more land compared to the proposed improvements on the B1023.

The scoring of the Main Alternative and proposed B1023 improvement works against the Road Investment Strategy (RIS) objectives is consistent with other assessments included in the scheme.

Regarding the origin and destination of traffic using the B1023 and levels of traffic rerouting, information on this provided in the Applicant's response to REP2-085-006.

The Applicant maintains the position that a bypass would directly benefit relatively few people, have the associated environmental impacts and carbon footprint of a new road through green space, and have disbenefits to other communities.

**REP2-085-023**

### **Sub-Question**

5.13 As outlined earlier, a detailed review of the origin and destination of traffic using the route would help inform potential opportunities to limit the predicted rerouting.

5.14 The serious concerns that TPA have in terms of the selected road and link speed type for the B1023 Inworth Road is likely to result in higher levels of traffic using this routing and, as such, the change in wider traffic rerouting may be more limited and reduce the NH suggested impacts of the MIAG Alternative Proposal.

### **Applicant's Response**

A summary of the origin and destination of traffic using the B1023 has been provided in the response to REP2-085-006. The underlying traffic model used to inform that origin/destination analysis was the same model used to assess alternative proposals within the Inworth Road and Community Bypass Technical Report [APP-095].

As outlined in the responses to REP2-085-004 and REP2-085-006, the traffic model meets Department for Transport criteria for its accuracy compared to observed traffic conditions including along the B1023, and its predictions of future traffic flows were prepared in line with Department for Transport guidance. The Applicant considers its assessment of traffic impacts to be sufficiently robust.

**REP2-085-024**

### **Sub-Question**

5.15 TPA believe that the negative and detrimental impacts to the villages of Messing and Inworth, along with the design concerns around elements of the Scheme, favour changes to the Scheme to incorporate an alternative to the currently Proposed J24 Works that would negate the predicted and likely increase in local traffic movements.

### **Applicant's Response**

As outlined in the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095] and previous responses to Chapter 5 of the TPA report [REP2-085-021 and REP2-085-022], the forecast traffic increase in the villages of Messing and Inworth are within the existing capacity of the local road network in Messing and the proposed improvements on Inworth Road address 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.

**REP2-085-025**

### **Sub-Question**

### Further Alternatives

5.16 Without the benefit of access to the traffic model used in the consideration of route options it is impossible for TPA to fully consider and assess the implications of any potential alternatives to the Proposed J24 Works. This said TPA has undertaken a high-level review of potential alternatives that are based on the stated reasoning for the works and the impacts associated with the current proposal. The intention of this being that NH provide a response as to the potential benefits and/or dis-benefits of any such alternative proposals.

### Applicant's Response

The Applicant welcomes the Interested Party's review of potential alternatives and has responded to the suggestion to retain the current junction 24 location, relocation of junction 24 to the south and providing partial access to the A12 in REP2-085-026 and REP2-085-027.

**REP2-085-026**

### Sub-Question

#### Retention of Current Junction 24 Location

5.17 The preferred offline upgrading of the A12 along the section that includes the existing Junction 24 would necessitate the formation of a replacement junction in a similar location. Whilst such a solution is a feasible stance in terms of providing continuity of access for existing traffic that uses the current Junction 24 it would not satisfy the secondary initiative of the proposed Scheme, namely a reduction in strategic vehicle trips on roads adjacent to the A12.

5.18 The option to retain the current Junction 24 location was not brought forward from the initial scheme evaluation process. The likely basis for this decision being that the limited transfers of trips onto the A12 and/or improves route choices to the A12 that have a more significant economic benefit in economic viability terms.

5.19 Given the fact that the West Tey Garden community will not be built it is unclear why the A12 needs to be relocated to the south (nor the existing carriageway de-trunked) between Junction 24 and Junction 25, as proposed. Have alternative junction design options in the vicinity of the current Junction 24 location been fully explored or has the previous design work been utilised as part of the development of the Scheme?

5.20 A new Junction 24 in the proximity of the current location and providing similar levels of connectivity would lead to a much-reduced impact in and around Messing and Inworth because preferred route choice would be on a par with the existing situation.

Relocation of Junction 24 to the South

5.21 Having determined a number of appraisal benefits to the Scheme by providing a new Junction 24, NH selected a location for the proposed junction further south than the now proposed location as part of Stage 2 of the design and option testing process.

5.22 The Scheme benefits of this alternative are unknown as this option was subsequently dropped in favour of the current location. This decision has been made on the basis of the new location providing “better connectivity between Tiptree and the strategic road network, and reduces traffic making strategic journeys on the wider local road network”, together with a reduced impact on a grade II listed building and reduced earthworks.

5.23 For the benefit of residents negatively affected by the Proposed Junction 24 Works, it is suggested that a comparison of the benefits and dis-benefits are provided by NH to the inquiry to allow a shared understanding of the scale of benefits provided by this solution.

### **Applicant's Response**

A Junction Strategy Refinement exercise was undertaken to confirm junction proposals in advance of Project Control Framework (PCF) Stage 3. A number of options were explored as detailed in Appendix D of the Scheme Assessment Report Addendum [REP1-006], which recommended to relocate the proposed junction 24 further south to the west of Inworth Road with a direct connection to Inworth Road. This connection to Inworth Road was proposed following Non-Statutory Public Consultation events held in 2017 where it emerged there was a preference for a junction on Inworth Road. This location provides an overall benefit to the A12 scheme as it provides better connectivity between Tiptree and the Strategic Road Network (SRN). It promotes the right

traffic on the right roads as it reduces the volume of strategic traffic making journeys on the wider local road network in comparison to the previous design in 2017.

Appendix D of the Scheme Assessment Report Addendum details the assessment of various junction 24 options, including in a similar location to the existing junction 24 location. The report considers the benefits and disbenefits to the community in the multi-disciplinary assessment based on the scheme's Road Investment Strategy (RIS) objectives.

Regarding the proposal to detrunk the existing A12 between junctions 24 and 25, the new three lane dual carriageway bypass moves strategic traffic out of Marks Tey and provides additional capacity to the network to support future growth. It also allows existing private access to remain connected to the de-trunked section of the A12, which would be removed if online widening was undertaken on the existing A12. Further detail of this proposal is available within Chapter 3 of the Environmental Statement [APP-070],

**REP2-085-027**

### **Sub-Question**

#### Partial Access to the A12

5.24 Consideration of options to provide partial access to the A12, which could take the form of access and egress from one side of the proposed Scheme or access and egress to routes in one direction does not appear to have been considered as part of the NH option testing process.

5.25 Any one of the four potential options for partial access to the A12 from junction 24 may provide significant benefit in terms of a transfer of trips to the strategic road network without the dis-benefits associated with an unacceptable increase in traffic movements through Inworth and Messing.

5.26 On this basis, it is considered reasonable that NH provide evidence to confirm if any such options have been considered and failing such consideration they should be requested to consider these potential scenarios and confirm the resultant impact.

## Applicant's Response

The Applicant has taken a consistent approach to provide all movement junctions at Hatfield Peverel, Witham, Kelvedon and Feering. All movement junctions are preferred as they negate the need for traffic to route through settlements which have half or three-quarter movement junctions at either side.

The existing arrangement of partial movement junctions at junction 23 and junction 24 encourage drivers to use the B1024 through Kelvedon and Feering. By providing the proposed all movements junction 24, traffic on the B1023 is intercepted from needing to use Gore Pit junction in Feering or Braxted Park Road to access the A12, reducing the traffic travelling on the B1024.

**REP2-085-028**

## Sub-Question

### 6 Summary and Conclusion Summary

6.1 TPA has been instructed by MIAG to provide transport planning consultancy services in relation to a proposal to widen the A12 between Chelmsford and the A120. The culmination of this instruction being to prepare evidence to support an objection to the Scheme, as currently proposed.

6.2 MIAG, who represent the communities of Messing and Inworth, is not unsupportive of the overall intentions of the Scheme and the predicted benefits that the Scheme will bring.

6.3 TPA has serious reservations regarding the operations of the transport model, which undermines the Scheme. It is believed that the modelling needs a full review before it can be considered sufficiently robust to accurately represent the current and future operation of the road network in the Inworth and Messing area.

6.4 As currently being promoted, the Proposed J24 Works would result in a significant increase in the volume of traffic travelling through the villages of Inworth and Messing that has not been adequately considered and mitigated.

6.5 The revised coding for the B1023 highlights how sensitive the model is in terms of changing predicted traffic flow levels and it is anticipated that the 'Do Something' increase in the volume of traffic attracted to the B1023 will be even greater due to actual traffic speeds along the B1023 compared to the coded speed for the B1023 link. The road widening proposed will facilitate the opportunity for vehicles to travel at an increased speed.

6.6 Four dwellings within Inworth are predicted to exceed the minimum SOAEL noise level, with one being adversely impacted day and night. The situation within Messing is predicted to be even worse with 71 dwellings negatively impacted, of which 16 will experience a moderate impact and 55 will experience a major impact.

6.7 It is considered unlikely that the scheme will result in a material impact in terms of air quality for the villages of Inworth and Messing, although the latter cannot be confirmed as Messing falls outside the scope of the air quality assessment area.

6.8 It is believed that, to date, the road safety implication associated with the Proposed J24 Works have not been fully assessed and reported.

6.9 It is evident from the NH information submitted in support of the Scheme that the Proposed J24 Works will lead to severance through Inworth village.

6.10 It is predicted that the widening works proposed through Inworth will lead to an increase in traffic volumes and vehicle speeds in and around Inworth.

6.11 Additional design work for the proposed Inworth Road roundabout is required to confirm visibility and associated third party land requirements. Similarly, the inclusion of a SLTL for Inworth Road is considered a serious design flaw that needs to be addressed.

6.12 NH should be required to reassess the dis-benefits of the Main Alternative, with a view to determining a viable alternative to the current Proposed J24 Works. Dismissing this alternative is on a minor cost basis and does not fully consider the detriment that is likely to significantly affect Inworth and Messing.

### **Applicant's Response**



The Applicant believes its assessment of the Main Alternative is robust and does not require reassessment. The Applicant continues to work on detailed design issues and will liaise with the local highway authority on its detailed design. The Applicant has fully considered the impacts of its proposals but does not believe there is a compelling need to pursue the additional land assembly required for the Main Alternative.

**REP2-085-029****Sub-Question****Conclusions**

6.13 The severe adverse impacts on residents of Inworth and Messing are considered sufficient to warrant reconsideration of the Scheme at a local level, ie regarding the Proposed J24 Works. This additional work should be based on refined and more detailed modelling of the local area to underpin design option testing and the evolution of a preferred design option.

6.14 Given the likely impacts from the proposed scheme, TPA does not consider that the current proposals meet the relevant policy tests and, as such, the proposals as currently presented should not be consented.

6.15 NH should have brought forward the Main Alternative as part of the DCO, and TPA believe that NH should amend their proposal to include it.

6.16 In their current form there are alterations that need to be made to the proposals which the DCO may not be able to accommodate; such as but not limited to issues with the Inworth Road roundabout and the lack of a complete package of mitigation proposals for all roads and residential dwellings affected in Inworth and Messing.

6.17 In the event that the Main Alternative continues to be resisted by NH, and the proposal in its current form is considered acceptable to the Secretary of State, appropriate mitigation is provided and secured which sufficiently attenuates the significant adverse impacts from the proposals.

### Applicant's Response

The Applicant does not recognise the use of the word "severe" in relation to impacts in Messing.

The Applicant has reviewed the Main Alternative proposal provided by Messing Inworth Action Group and included this in the options assessment undertaken in the Junction 24, Inworth Road and Community Bypass Technical Report in Appendix 3.3 of the Environmental Statement [APP-095]. The Applicant maintains the position outlined in the technical report to provide localised widening to improve Inworth Road rather than provide an alternative parallel route through the countryside that provides the same purpose.

The Applicant has assessed the proposed scheme against the relevant national and local policies, which can be found in the Case for the Scheme appendices [APP-250 – APP-252].

**REP2-085-030**

### Sub-Question

Drawings - Page 31 and 32 of Document ##for image/table please see original document##

### Applicant's Response

The Applicant has considered the drawings provided by the Interested Party.

Regarding SK01a, the Applicant has considered this design in the Junction 24, Inworth Road and Community Bypass Technical Report in Appendix 3.3 of the Environmental Statement [APP-095].

Regarding SK02, it is unclear what design speed has been used to determine the visibility splays on the northern and southern arms of the roundabout. As explained in response to Chapter 4 of the report provided by the Interested Party [REP2-085-014], the Inworth Road roundabout and approaches from Inworth Road and Kelvedon Road have been designed in accordance with Essex County Council's Highways Technical Manual and Manual for Streets, which is more suited to the local nature of the road than the

Design Manual for Roads and Bridges.	
	<b>REP2-085-031</b>
<b>Sub-Question</b>	
Appendix A of this Document - Page 33 to 36 ##for image/table please see original document##	
<b>Applicant's Response</b>	
The Applicant notes the speed data provided in this Automatic Traffic Count survey data. Responses about the modelled and predicted speeds on the B1023 are provided in the Applicant's response to REP2-085-005.	
	<b>REP2-085-032</b>
<b>Sub-Question</b>	
Appendix B - Page 37-82(End) ##for image/table please see original document##	
<b>Applicant's Response</b>	
The Applicant notes the contents of Appendix B. The Applicant can confirm that this presentation was sent to Messing Cum Inworth Parish Council on 15 September 2022 ahead of a meeting planned for 22 September 2022.	
<b>Messing and Inworth Action Group Limited</b>	<b>REP2-086-001</b>
<b>Sub-Question</b>	

This is appendix 2 of MIAG SOCG document ##for image/table please see original document##

### Applicant's Response

The Applicant has responded to the contents of this submission as part of the response to REP2-083.

- . Report on Heavy Goods Vehicle Swept Path analysis within Messing village – REP2-083-006
- . Report on the Feasibility of Road Improvements to Kelvedon Road and Harborough Hall Lane in Messing - REP2-083-005
- . Inworth Road Roundabout design checks - REP2-083-007
- . Report on the Design of the Main Alternative For Junction 24 - REP2-083-004
- . Report on the Technical Design of the NH Proposal for Junction 24 - REP2-083-008
- . MIAG – Initial Report – Messing Roads, February 2022 -REP2-083-002

### Messing and Inworth Action Group Limited

REP2-087-001

### Sub-Question

This is appendix 3 of MIAG SOCG document ##for image/table please see original document##

### Applicant's Response

The Applicant notes the petition, letters and emails secured by the action group. The Applicant has undertaken a thorough assessment of the Main Alternative and this can be found in Appendix 3.3: Junction 24, Inworth Road and Community Bypass Technical Report [APP-095].

<b>National Grid</b>	<b>REP2-090-001</b>
<b>Sub-Question</b>	
<p>1. National Grid Electricity Transmission plc (“NGET”) is a statutory undertaker for the purposes of the Planning Act 2008. NGET assets which have been identified as being within or within close proximity to the proposed Order limits are: (a) 4VB 400kV overhead line Braintree – Pelham – Rayleigh Main; and (b) 4VB 400kV overhead line Braintree – Bramford – Rayleigh Main. 2. Further to NGET’s relevant representations which were received by the Examining Authority on 25 October 2022, NGET welcomes the inclusion of protective provisions for its benefit in the dDCO. NGET is liaising with the Promoter regarding the protective provisions and intends that these be secured by way of a side agreement. NGET is confident that agreement will be reached and will update the Examining Authority in due course.</p>	
<b>Applicant’s Response</b>	
<p>The Applicant notes the Interested Party’s comments and will continue to liaise with them to agree Protective Provisions before the end of the Examination.</p>	
<b>Natural England</b>	<b>REP2-091-001</b>
<b>Sub-Question</b>	
<p>Dear Ms Harvey</p> <p>NSIP Reference Name / Code: A12 Chelmsford to A120 Widening Scheme / TR010060 User Code: 20032607 Written Representations and response to the Examining Authority’s first written questions</p> <p>Examining authority’s submission deadline 2 with a date of 13 February 2023 Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present</p>	

and future generations, thereby contributing to sustainable development. For any further advice on this consultation please contact the case officer Camilla Davidge and copy to consultations@naturalengland.org.uk. Yours sincerely Camilla Davidge Lead Advisor – Land Use Planning West Anglia Area Team

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-091-002**

### **Sub-Question**

Written Representation

PART I: Summary of Natural England's advice. We are satisfied that there are no areas of concern regarding internationally and nationally designated sites. We have provided a Letter of No Impediment (LONI) in relation to badger mitigation and we are currently considering the licensing implications for bats with a view to issuing a LONI provided that we are satisfied with the mitigation measures submitted. We are awaiting further information from Highways England with respect to soils, including 'best and most versatile' (BMV).

PART II: Annexes including Natural England's evidence and answers to the Examining Authority's first written questions

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-091-003**

### **Sub-Question**

## PART I ADVICE OF NATURAL ENGLAND 1.1. Purpose and structure of these representations

1.1.1. These Written Representations are submitted in pursuance of rule 10(1) of the Infrastructure Planning (Examination Procedure) Rules 2010 ('ExPR') in relation to an application under the Planning Act 2008 for a Development Consent Order ('DCO') for the A12 Chelmsford to A120 Widening scheme ('the Project') submitted by National Highways ('the Applicant') to the Secretary of State.

1.1.2. Natural England has already provided a summary of its principal concerns in its Relevant Representations, submitted to the Planning Inspectorate on 03 November 2022. This document comprises an updated detailed statement of Natural England's views, as they have developed in view of the common ground discussions that have taken place with the Applicant to date. These are structured as follows: a. Section 2 describes the conservation designations, features and interests that may be affected by the Project and need to be considered. b. Section 3 comprises Natural England's submissions in respect of the issues that concern it. This submission cross-refers to, and is supported by, the evidence contained in the Annexes. c. Section 4 is a dedicated section answering the Examining Authority's written questions which were asked on 20 January 2023, cross-referenced to the rest of this document. d. Section 5 provides a summary of Natural England's case. e. The Annexes contain evidence referred to in the main body of these Representations.

### Applicant's Response

The Applicant notes the Interested Party's comments.

**REP2-091-004**

### Sub-Question

#### 2.1. International conservation designations

2.1.1. Essex Estuaries Special Area of Conservation (SAC) The Essex Estuaries is the second largest estuarine site on the east coast of England. It contributes to the essential range and variation of estuaries in the UK as the best example of a coastal plain

estuary system on the British North Sea coast. Covering an area of 472 square kilometres, this relatively undeveloped estuary complex contains the major estuaries of the Colne, Blackwater, Crouch and Roach, as well as extensive open coast tidal flats at Foulness, Maplin and the Dengie. The intertidal mudflats and sandflats within the European marine site support a wide range of typical estuarine and marine communities on sediments ranging from the finer estuarine muds and muddy sands to coarser sands and gravels. The SAC is 6km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Essex Estuaries SAC, alone or in combination with any other plan or project.

#### 2.1.2. Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)

The Blackwater Estuary SPA covers an area of 4395.15 hectares. The Mid-Essex Coast SPAs support a diverse range of species. These include internationally important populations of breeding birds, as well as internationally important assemblages of wintering waterfowl, present in both nationally and internationally important numbers. The Mid-Essex Coast comprises an extensive complex of estuaries and intertidal sand and silt flats, including several islands, shingle and shell beaches and extensive areas of saltmarsh.

The SPA is 6km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA), alone or in combination with any other plan or project.

#### 2.1.3. Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar

The site, one of the largest estuarine complexes in East Anglia, consists of intertidal mudflats fringed by saltmarsh, shingle and shell banks, and offshore islands. Surrounding terrestrial habitats include a sea wall, grassland, ancient grazing marsh and associated fleet and ditch system. This rich mosaic of habitats supports an outstanding assemblage of nationally scarce plants and a nationally important assemblage of rare invertebrates. Internationally and nationally important numbers of waterbirds winter at the site.

The Ramsar is 6km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats



Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar, alone or in combination with any other plan or project.

2.1.4 Colne Estuary (Mid-Essex Coast Phase 2) SPA The Colne Estuary SPA covers an area of 2719.93 hectares. It includes internationally important populations of breeding birds, as well as internationally important assemblages of wintering waterfowl, present in both nationally and internationally important numbers. The Colne Estuary is a site of significant international ornithological importance for overwintering birds, including raptors, geese, ducks and waders. The diversity of estuarine habitats provides good quality feeding areas for a diversity of waterbird species. At high tide, the birds roost along the shoreline and salt marsh fringe. The site is also important in summer for breeding birds. The SPA is 9.7km south east of the Order Limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Colne Estuary (Mid-Essex Coast Phase 2) SPA, alone or in combination with any other plan or project.

#### 2.1.5 Colne Estuary (Mid-Essex Coast Phase 2) Ramsar

Colne Estuary is a comparatively short and branching estuary, with five tidal arms which flow into the main river channel. The estuary has a narrow intertidal zone predominantly composed of flats of fine silt with mudflat communities typical of south-eastern estuaries. The estuary is of international importance for wintering Brent Geese and Black-tailed Godwit and of national importance for breeding Little Terns and five other species of wintering waders and wildfowl. The variety of habitats which include mudflat, saltmarsh, grazing marsh, sand and shingle spits, disused gravel pits and reedbeds, support outstanding assemblages of invertebrates and plants.

The Ramsar is 9.7km south east of the Order Limits After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Colne Estuary (Mid-Essex Coast Phase 2) Ramsar, alone or in combination with any other plan or project.

### 2.1.6 Abberton Reservoir SPA

Abberton Reservoir is a large storage reservoir. It is the largest freshwater body in Essex with a water area of about 500ha and is one of the most important reservoirs in Britain for wildfowl. About 30,000 birds visit the reservoir annually including internationally important numbers of one species and nationally important numbers of twelve others.

The SPA is 5.4km south east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Abberton Reservoir SPA, alone or in combination with any other plan or project.

### 2.1.7 Abberton Reservoir Ramsar

Abberton Reservoir is a large storage reservoir built in a long shallow valley. It is the largest freshwater body in Essex and is one of the most important reservoirs in Britain for wildfowl. It is less than 8 km from the coast and its primary role is as a roost for the local estuarine wildfowl population.

The Ramsar is 5.4km south east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Abberton Reservoir Ramsar, alone or in combination with any other plan or project.

2.1.8 Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA The SPA covers an area of 1,847.87 hectares . The site is of importance for wintering water- birds. The intertidal mud together with the saltmarsh and grazing marsh regularly support internationally important numbers of Dark-bellied brent geese, and nationally important numbers of Shoveler *Spatula clypeata*, Shelduck *Tadorna* and Black-tailed godwit *Limosa*. These habitats also support an outstanding assemblage of aquatic and terrestrial invertebrates including 56 which are rare or notable, and 13 nationally scarce plants. The SPA is 11.7km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Crouch and Roach Estuaries (Mid-Essex Coast

Phase 3) SPA, alone or in combination with any other plan or project.

#### 2.1.9 Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar

The Rivers Crouch and Roach are situated in South Essex. The River Crouch occupies a shallow valley between two ridges of London Clay, whilst the River Roach is set predominantly between areas of brick earth and loams with patches of sand and gravel. The intertidal zone along the Rivers Crouch and Roach is 'squeezed' between the sea walls of both banks and the river channel. This leaves a relatively narrow strip of tidal mud unlike other estuaries in the county, which, nonetheless, is used by significant numbers of birds. One species is present in internationally important numbers, and three other species of wader and wildfowl occur in The Ramsar is 11.7km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar, alone or in combination with any other plan or project

#### 2.1.10 Dengie (Mid-Essex Coast Phase 1) SPA

The Dengie SPA is located on the coast of Essex in eastern England and covers an area of 3127.22 hectares. It is a large and remote area of tidal mudflats and saltmarshes at the eastern end of the Dengie peninsula, between the adjacent Blackwater and Crouch estuaries. The site was classified on the basis that it supports internationally important numbers of overwintering bird species (dark-bellied brent goose, grey plover, knot and hen harrier), including its waterbird assemblage. The saltmarsh at the Dengie SPA contains the largest continuous example of its type in Essex. At high tide the saltmarsh is host to many of the overwintering bird populations. Behind the seawall are wide borrow dykes, some containing reed beds. The formation of cockleshell spits and beaches, saltmarsh and mudflats at the site are of geomorphological interest. The foreshore, saltmarsh and beaches support an outstanding assemblage of rare coastal flora.

The SPA is 14.1km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Dengie (Mid-Essex Coast Phase 1) SPA, alone or in combination with any other plan or project.

### 2.1.11 Dengie (Mid-Essex Coast Phase 1) Ramsar

Dengie is a large and remote area of tidal mudflat and saltmarsh at the eastern end of the Dengie peninsula, between the Blackwater and Crouch Estuaries. The saltmarsh is the largest continuous example of its type in Essex. Foreshore, saltmarsh and beaches support an outstanding assemblage of rare coastal flora. It hosts internationally and nationally important wintering populations of wildfowl and waders, and in summer supports a range of breeding coastal birds including rarities. The formation of cockleshell spits and beaches is of geomorphological interest.

The Ramsar is 14.1km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Dengie (Mid-Essex Coast Phase 1) Ramsar, alone or in combination with any other plan or project

### 2.1.12 Outer Thames Estuary SPA

The SPA consists of areas of shallow and deeper water, high tidal current streams and a range of mobile sediments. Large areas of mud, silt and gravelly sediments form the deeper water channels.. Throughout much of the site, sand forms large sandbanks separated by troughs. The site is designated for non-breeding red-throated diver (*Gavia stellata*), a diving seabird which overwinters in large numbers within the southern North Sea. The site is also designated for breeding common tern (*Sterna hirundo*) and little tern (*Sternula albifrons*). The Outer Thames Estuary SPA protects important at-sea foraging waters for common and little tern. The coastal waters of the SPA are used for foraging, as well as a wide range of maintenance activities, such as bathing and loafing.

The SPA is 16.3km east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Outer Thames Estuary SPA, alone or in combination with any other plan or project

### 2.1.13 Stour and Orwell Estuaries SPA

The Stour and Orwell Estuaries SPA straddle the Suffolk-Essex border on the east coast of England. The Estuaries are adjacent but combine near the mouth as they join the North Sea. Both are tidal, shallow and relatively sheltered, although the Orwell Estuary is

narrower and more linear compared to the wider Stour Estuary. Invertebrate-rich mudflats flank the edges of both estuaries, regularly being covered and uncovered by the tide. Diverse communities of saltmarsh fringe the edges of both estuaries. Several freshwater pools and grazing marshes fall within the SPA boundary. Breeding avocet feed upon the intertidal mudflats and use the grazing marshes to nest during the summer. The SPA also supports important numbers of overwintering waterbirds, which also use the mudflats extensively for feeding. The saltmarsh and grazing marsh provide important roosting sites, whilst some birds feed and roost on the surrounding arable land. The SPA also supports a large and diverse waterbird assemblage.

The SPA is 14.2km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Stour and Orwell Estuaries SPA, alone or in combination with any other plan or project

#### 2.1.14 Stour and Orwell Estuaries Ramsar

The Stour and Orwell Estuaries is a wetland of international importance, comprising extensive mudflats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. It provides habitats for an important assemblage of wetland birds in the non-breeding season and supports internationally important numbers of wintering and passage wildfowl and waders. The site also holds several nationally scarce plants and British Red Data Book invertebrates.

The Ramsar is 14.2km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Stour and Orwell Estuaries Ramsar, alone or in combination with any other plan or project

#### 2.1.15 Alde-Ore Estuary SPA

The Alde-Ore Estuary SPA is located on the Suffolk coast between Aldeburgh to the North and Bawdsey to the South. The Alde-Ore Estuary SPA is composed of Atlantic salt meadows *Glauco- Puccinellietalia maritima*, intertidal mudflats, shingle, coastal lagoons and estuarine fish communities. Bird usage of habitats within the SPA varies seasonally, with different areas being utilised for nesting and feeding at different times of the year.

The SPA is 42.8km north-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Alde-Ore Estuary SPA, alone or in combination with any other plan or project

#### 2.1.16 Alde-Ore Estuary Ramsar

The site comprises the estuary complex of the rivers Alde, Butley and Ore, including Havergate Island and Orfordness. There are a variety of habitats including, intertidal mudflats, saltmarsh, vegetated shingle (including the second-largest and best-preserved area in Britain at Orfordness), saline lagoons and grazing marsh. The Orfordness/Shingle Street landform is unique within Britain in combining a shingle spit with a cusped foreland. The site supports nationally-scarce plants, British Red Data Book invertebrates, and notable assemblages of breeding and wintering wetland birds.

The Ramsar is 42.8km north-east of the Order Limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report - TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Alde-Ore Estuary Ramsar, alone or in combination with any other plan or project

#### **Applicant's Response**

The Applicant welcomes agreement from Natural England that there are no likely significant effects on any internationally designated sites, as presented in the Habitats Regulations Assessment: No Significant Effects Report [APP-201].

**REP2-091-005**

#### **Sub-Question**

2.2. National conservation designations

### 2.2.1 River Ter Site of Special Scientific Interest (SSSI)

The River Ter is representative of a lowland stream with a distinctive floor regime. It is flashy, draining a low-lying catchment on glacial till, and has a very low base-flow discharge but high flood peaks; daily, monthly and annual flow variability are also high. In addition the site demonstrates characteristic features of a lowland stream including pool-riffle sequences, bank erosion, bedload transport and dimensional adjustments to flooding frequency.

The River Ter SSSI is located approximately 8km upstream from the proposed Scheme. Natural England is satisfied that the project is unlikely to have a significant impact on the nearby River Ter SSSI, based on the information provided in 6.1 Environmental Statement Chapter 9 Biodiversity (TR010060/APP-076).

### 2.2.2 Marks Tey Brickpit SSSI

Marks Tey has uniquely important Pleistocene sediments, which have yielded a continuous pollen record through the entire Hoxnian Interglacial. No other site in the British Isles has so far produced a comparable vegetational record for this or any other interglacial.

Marks Tey Brickpit SSSI is located approximately 80m from the Order Limits. Natural England is satisfied that the project is unlikely to have a significant impact on Marks Tey Brickpit SSSI, based on the information provided in 6.1 Environmental Statement Chapter 9 Biodiversity (APP- 076) and for the reasons outlined within Chapter 10: Geology and soils [TR010060/APP/6.1].

### 2.2.3 Tiptree Heath SSSI

Tiptree Heath lies between Colchester and Maldon on a ridge of glacial sand and gravel. It is the largest surviving fragment of heathland in the county and shows a complete succession from acidic grassland and dwarf shrub heath, through gorse and birch scrub to secondary woodland. It supports a number of plants that are rare in Essex.

Tiptree Heath SSSI, designated for heathland habitats is located within 200m of the ARN. Natural England is satisfied that the project is unlikely to have a significant impact on Tiptree Heath SSSI based on the air quality assessment (Chapter 6: Air quality [TR010060/APP/6.1]) which showed there would be no impact from changes in air quality at Tiptree Heath SSSI as a result of operation of the proposed scheme.

### Applicant's Response

The Applicant welcomes agreement from Natural England that there are no likely significant effects on any nationally designated sites, as presented in Chapter 9: Biodiversity, of the Environmental Statement [APP-076].

**REP2-091-006**

### Sub-Question

#### 2.3. Protected Species

2.3.1 Bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Natural England is in the process of assessing the draft licence application.

### Applicant's Response

The Applicant notes the current status of the draft bat licence application (Appendix 9.16 of the Environmental Statement [APP-140]) and is in the process of updating the application following comments received from Natural England on 9 November 2022.

**REP2-091-007**

### Sub-Question

2.3.2 Great Crested Newts (GCN) Great crested newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

We note that District Level Licensing (DLL) will be used for GCN mitigation. Should DLL not be progressed for any reason Highways



England will require a Natural England European Protected Species (EPS) Licence. In such case we recommend that a full draft GCN application is agreed with Natural England as soon as possible, in order to expedite the issue of a Letter of No Impediment (LONI) for the examination.

### **Applicant's Response**

The Applicant notes Natural England's comments with respect to Great Crested Newts (GCN) and confirms that District Level Licensing (DLL) remains the intended approach for delivering GCN mitigation for the proposed scheme. The Impact Assessment & Conservation Payment Certificate was issued to the Applicant by Natural England on 11 May 2023 (Reference: DLL-ENQ-ESSX-00001).

**REP2-091-008**

### **Sub-Question**

Otter Otters are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Natural England has not undertaken a detailed review of species surveys and mitigation as the applicant has advised that no licences are required. Natural England welcomes confirmation that Natural England's standing advice has been/will be followed in relation to species licencing.

### **Applicant's Response**

As concluded in Table 9.29 and Table 9.31 of Chapter 9: Biodiversity, of the Environmental Statement [APP-076], there would be slight adverse and slight beneficial impacts (both not significant) on otter as a result of construction and operation of the proposed scheme respectively. With the implementation of standard mitigation, it is considered that there would be no long-term or significant impacts on the conservation status of otter within the proposed scheme footprint or the wider Order Limits, and there is therefore no

requirement to apply for a European Protected Species Mitigation (EPSM) licence.

The Applicant confirms that Natural England's standing advice with respect to otter has been followed and will be followed as appropriate in relation to species licensing should pre-construction surveys identify a change in the baseline conditions.

Pre-construction surveys would be undertaken to ensure the baseline is up to date and to determine if any new holts or couches have started to be used by otters (as committed in BI11 of the Register of Environmental Actions and Commitments (REAC), in the first iteration Environmental Management Plan [APP-185]). Should they be located in a place that would be disturbed, damaged or destroyed as a result of the proposed scheme, a European Protected Species Mitigation licence would be sought from Natural England to agree the specific mitigation approach as committed in BI34 of the REAC [APP-185].

**REP2-091-009**

### **Sub-Question**

Dormouse Dormice are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Natural England has not undertaken a detailed review of species surveys and mitigation as the applicant has advised that no licences are required. Natural England welcomes confirmation that Natural England's standing advice has been/will be followed in relation to species licencing.

### **Applicant's Response**

Dormice have been scoped out of Chapter 9: Biodiversity, of the Environmental Statement [APP-076] as no dormice or evidence of dormice were recorded during surveys undertaken in 2017 and 2020 (and 2022 for the proposed gas main diversion) in accordance with best practice (Bright et al., 2006). Full details are provided in Appendix 9.6: Dormouse Survey Report [APP-130] and additional submission Dormouse Survey Report [AS-036]. There is therefore no requirement for a European Protected Species Mitigation licence to be applied for.

The Applicant can confirm Natural England's standing advice with respect to dormice has been followed for the surveys undertaken to date. No further surveys are proposed for dormice.

**REP2-091-010**

### **Sub-Question**

Badgers Badgers are protected under the Protection of Badgers Act 1992 (as amended).

Natural England has assessed a draft licence application and issued a 'letter of no impediment' (Annex C) confirming that it sees no impediment to granting a licence, with caveats, in the future.

### **Applicant's Response**

The Applicant is pleased to have received the Letter of No Impediment (LONI) from Natural England with respect to badgers. Following grant of the Development Consent Order, a mitigation licence would be developed based on the draft badger licence application (Appendix 9.17 of the Environmental Statement [APP-141]), caveats within the LONI, and results of the pre-construction surveys. The licence application would then be submitted to Natural England.

**REP2-091-011**

### **Sub-Question**

2.4. Non-designated interests

2.4.1. Natural England refers you to our Standing Advice on ancient woodland ##for image/table please see original document##

### **Applicant's Response**

The Applicant confirms that Natural England's standing advice with respect to ancient woodland, ancient trees and veteran trees has been followed, as evidenced below.

Baseline data used to inform the assessment for the Environmental Statement comprised the following: a tree survey which was conducted in line with BS 5837 (Appendix 8.4: Arboricultural Impact Assessment, of the Environmental Statement [APP-122]), a review of Natural England's Ancient Woodland Inventory to identify ancient woodland habitats, and records of verified veteran and ancient trees were obtained from the Woodland Trust's Ancient Tree Inventory (paragraph 9.8.1 of Chapter 9: Biodiversity [APP-076]).

Impacts to ancient woodland and ancient and veteran trees have been avoided as far as practicable. Paragraph 2.25 of Chapter 2: The proposed scheme, of the Environmental Statement [APP-069] outlines the scheme-specific design principles in relation to landscape design, including the retention of as much existing vegetation as practicable, particularly ancient woodland and ancient and veteran trees (as committed to in LV4 in the Register of Environmental Actions and Commitments (REAC) in the first iteration Environmental Management Plan (EMP) [APP-185]). For example, the alignment of the proposed scheme was adjusted between junction 24 and junction 25 to avoid a veteran tree.

There would be no loss of ancient woodland, ancient trees or veteran trees as a result of construction of the proposed scheme. There would, however, be unavoidable loss of five potential veteran trees (i.e. trees not listed on the Ancient Woodland Inventory but assessed to be of sufficient quality to be considered of veteran status) as detailed within Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070]. The Applicant acknowledges that the loss of veteran trees cannot be mitigated due to the time period over which a veteran tree matures. As committed to in B117 in the REAC [APP-185], where potential ancient and veteran trees are unavoidably removed to accommodate the proposed scheme, their loss would be partially compensated (acknowledging that features such as ancient and veteran trees are considered irreplaceable and therefore cannot be fully compensated) as per the latest guidance from Natural England and the Forestry Commission (2022):

- Young trees of the same species as those which are removed would be planted with sufficient space around them to encourage development of an open crown.
- Where practicable, trees would be planted close to the trees they are replacing, taking into account postconstruction

air quality levels.

- Where practicable and safe to do so, the intact hulk of the potential ancient or veteran tree would be left where it is (preferably standing) to benefit invertebrates and fungi. Where this is not possible, the hulk would be moved near to other unimpacted potential ancient or veteran trees or parkland in the area where it would still provide benefits to biodiversity (specifically invertebrates and fungi).

It is considered that with standard construction mitigation measures in place (as described in Section 9.10 of Chapter 9: Biodiversity [APP-076] and committed to in AQ1 and GN2 of the REAC [APP-185]), it is unlikely there would be significant effects from changes in air quality on ancient and veteran trees.

There would, however, be a change in air quality for one ancient woodland (Perry's Wood) during operation of the proposed scheme, which would be significant. To offset the significant effect on Perry's Wood, it is proposed to plant an area of broadleaved woodland habitat at borrow pit F (as shown on Figure 2.1 Environmental Masterplan, Part 1, Sheet 7 [APP-086]; and committed to in BI16 in the REAC [APP-185]). The proposed species composition would reflect the species typical of Perry's Wood and other ancient woodlands in the local area. Monitoring of the newly planted woodland would be undertaken to ensure habitats are establishing as desired and to make recommendations for alterations to management regimes where required (as committed to in BI14 in the REAC [APP-185]).

**REP2-091-012**

### **Sub-Question**

2.5 Impacts on soils (including "best and most versatile land")

Approximately 460.2 ha of agricultural land, including 332.5 ha of Best and Most Versatile (BMV) land would be permanently sealed by the proposed scheme or otherwise lost to agricultural production. An additional 85ha of agricultural land, including at least 63ha of BMV land is anticipated to be temporarily acquired for the proposed scheme.

NE provided our advice requesting additional sampling points and clarification on numerous elements in our Relevant

### Representation.

To date, no further information has been submitted on soils for Natural England to comment on, but we have been in discussion with National Highways through the Discretionary Advice contract and expect the requested information to be provided shortly.

### Applicant's Response

Please refer to the Applicant's responses to RR-184-010 and 184-011 [REP1-002] which address these points in full. As indicated in our response to Natural England's relevant representation, the Applicant will be providing additional information on soils to Natural England once the Soil Resource Survey, which is now underway, has been completed.

**REP2-091-013**

### Sub-Question

2.6 Biodiversity net gain 2.6.1 As Biodiversity Net Gain (BNG) is pre-mandatory, we are not able to require specific measures and would defer to the local authorities as the responsible body for Biodiversity Net Gain. However, there are some aspects of the BNG calculation that we suggest could be improved:

We advise that the habitat surveys (using UK Habitat Classification rather than Phase 1 methodology) and condition assessments could be updated. Currently there are too many assumptions and limitations to provide an accurate baseline assessment.

2.6.2 The proposals are largely based on Metric 3.0. We note that some calculations have been undertaken using Metric 2.0 instead of Metric 3.0. We advise aligning all data with the latest version of the metric used for the project (3.0) to ensure consistency.

2.6.3 The report notes that there are some situations where the metric trading rules are not met. We wish to re-iterate the importance of the trading rules. We note the creation of a significant number of new ponds and this appears to be an issue relating to the fact that some ponds are classed as "ditches" so there may be discrepancies in whether it counts as "area" or "riverine" units. Provision of "like for like" open mosaic habitat should be considered within the design scheme.

For a fuller explanation of our comments, please see Annex A (Q3.0.1)

## Applicant's Response

### 2.6.1

The Applicant acknowledges that the field data were recorded between 2016 and 2020 following the methodology outlined in the Phase 1 Habitat Handbook (JNCC, 2010) and not using UK Habitat Classification (UK Habs) methodology. The reason for this is that UK Habs was formally released in early 2018, which was during the baseline data collection period, by which time the majority of habitat data for the proposed scheme had been collected.

Given the extent of the study area and construction programme for the proposed scheme, it was not practicable to repeat the surveys using UK Habs. Therefore, the Phase 1 data were subject to a conversion to Metric 3.0 habitat types using the conversion tools available in the Metric tool and the UK Habitats Classification Excel spreadsheet resource and informed by professional judgement and knowledge of the habitats within the proposed scheme. Baseline area-based habitat type translations and condition justification are presented in Table B.1 of Appendix 9.14: Biodiversity Net Gain Report [APP-138].

A precautionary approach was applied to the conversion, including instances where baseline data were absent, whereby habitats were assigned a higher condition score rather than a lower one where the criteria suggest this is possible and cannot be ruled out. In particular, a precautionary approach was taken in respect of 'High' distinctiveness habitats which have all been assigned 'Good' condition in the Metric 3.0 calculator (as stated in paragraph 3.4.16 of Appendix 9.14 [APP-138]).

Given a lack of certainty over the future management of habitats in temporary land-take areas, a similar approach was adopted when assigning post-intervention habitat condition for area-based and hedgerow habitats.

It is considered that this approach mitigates the risk of undervaluing the baseline.

### 2.6.2

With the exception of the hedgerow data, all other data have been assessed using Metric 3.0. A detailed review of hedgerow data was originally undertaken against the Metric 2.0 criteria. This assessment has been carried over into Metric 3.0, with no changes,

given the limited changes between the Metric 2.0 and Metric 3.0 condition criteria for hedgerows. For lines of trees, the condition assessment is more comprehensive in Metric 3.0, but as not all the necessary information has been collected to make this assessment against the Metric 3.0 condition criteria for lines of trees, it was considered appropriate to use the condition assigned originally against the metric 2.0 condition criteria. As lines of trees only relate to 1.89km of the 39.24km included in the hedgerow assessment, any limitations as a result of this approach are not considered likely to have a substantial effect on the assessment. Full limitations are provided in Section 6 of Appendix 9.14: Biodiversity Net Gain Report [APP-138].

The Applicant will be re-running the calculations once further landscaping information becomes available through detailed design. It is noted that the Biodiversity Metric 3.1 has recently been released by Natural England, published 21 April 2022, and this tool will be considered for future metric calculations. The Applicant notes Natural England's comment regarding the FAQ section of the metric which suggests that, given the minor changes between Metric 3.0 and Metric 3.1, it is acceptable to continue using an older version of the Metric (i.e., 3.0) if a project has already begun.

### 2.6.3

Appendix 9.14: Biodiversity Net Gain Report [APP-138] addresses, as far as practicable, how trading rules have not been satisfied. Natural England has stated in their Written Representation that some ponds have been classed as ditches, however, as per paragraph 3.6.3 of the BNG report [APP-138], the baseline metric assessment includes some ditches that have been captured as standing water (G1) in the Phase 1 habitat survey and translated as 'ponds' in the metric (i.e., the opposite way around) as it was not possible to split what was ditch versus what was pond using the Phase 1 data.

It is acknowledged that drainage ditches would require further assessment to confirm whether those currently assessed as ditches under the rivers and streams metric are in-fact linear habitats. The Applicant would propose to use desk-based information to update this assessment where possible.

Actions to improve the biodiversity performance of the proposed scheme would take trading rules into consideration as well as overall metric outputs i.e., look to address current trading failures, specifically for woodland habitat (as stated in Section 5 of Appendix 9.14: Biodiversity Net Gain Report [APP-138]).

While not technically meeting the definition of Open Mosaic Habitat (OMH), there is some provision for the creation of south facing



sandy banks and earth 'cliffs' to mitigate impacts to terrestrial invertebrates, which would increase the value of the habitats provided within the ecological mitigation areas (as described in paragraph 9.10.110 of Chapter 9: Biodiversity [APP-076] and committed to in BI44 in the Register of Environmental Actions and Commitments (REAC), in the first iteration Environmental Management Plan [APP-185]). The Applicant is reviewing the design as part of the detailed design stage to maximise retention of some of the OMH land that is currently shown as being lost.

From Annex A Q3.0.1

#### Veteran trees

The Applicant is committed to retaining as far as reasonably practicable existing vegetation within the Order Limits including temporary works areas (commitment LV4 of the REAC [APP-185]).

Where practicable, the design of the proposed scheme was refined to avoid impacts (see Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070]). However, the loss of five potential veteran trees was unavoidable. The Applicant acknowledges that the loss of veteran trees cannot be mitigated due to the time period over which a veteran tree matures. As per paragraph 9.10.38 of Chapter 9: Biodiversity [APP-076], measures to compensate for the loss of the five potential veteran trees (as committed in BI17 in the REAC [APP-185]) would be in accordance with the latest guidance from Natural England and the Forestry Commission. The significance of effect with respect to the five potential veteran trees is assessed as slight adverse (not significant) given that 93% of all potential and verified veteran and ancient trees within 15m of the Order Limits would be retained.

#### Ecological Mitigation Areas

In Annex A (Q3.0.1) Natural England, in response to paragraph 4.2.8 of Appendix 9.14 Biodiversity Net Gain Report [APP-138] comment that 'if these areas [the ecological mitigation areas] were to be removed, they [the Applicant] would still be achieving an overall 10% net gain in biodiversity, which is positive'. The Applicant would like to clarify that the information presented in paragraph 4.2.8 [APP-138] states that without the ecological mitigation areas, the proposed scheme would still achieve 15% of the total units of habitat creation, which does not translate into 15% BNG. Taking into consideration habitat losses, the proposed scheme in the absence of any ecological mitigation areas would achieve closer to 8% BNG, which is still positive although recognised that this is slightly lower than 10%.

<b>REP2-091-014</b>
<b>Sub-Question</b>
<p>2.7 Natural England's outstanding concerns and advice</p> <p>2.7.2 Soils</p> <p>Natural England identified the following main issues in its Relevant Representations:</p> <p>Land Use/ Land Take and Likely BMV impacts –</p> <ul style="list-style-type: none"> <li>o Clarification on what is considered to be permanent development;</li> <li>o The design principles should be updated to allow this land to maintain or return to its original physical characteristics (ie to retain its ALC grade).</li> <li>o Request additional clarification around robustness of the Agricultural Land Classification field survey.</li> </ul>
<b>Applicant's Response</b>
<p>Please refer to the Applicant's response to RR-184-010 [REP1-002] which addresses these points in full.</p>
<b>REP2-091-015</b>
<b>Sub-Question</b>
<p>Soils-</p> <ul style="list-style-type: none"> <li>o Detailed sampling is needed a form a comprehensive Soil Resources Survey in line with the Defra Construction Code of Practice for the Sustainable Use of Soil on Construction Sites</li> <li>o The ES (chapter 10) does not appear to follow the methodology for Geology and Soils as set out in LA109 methodology, in that in that agricultural land, agricultural soils and other soils have been considered as separate receptors rather than with soil as a single receptor. Our understanding is that this should be a single assessment for the soil as a receptor and would reflect the likely impact on the baseline soils criteria combined.</li> </ul>
<b>Applicant's Response</b>

Please refer to the Applicant's responses to RR-184-010 and 184-011 [REP1-002] which address these points in full.

**REP2-091-016**

### **Sub-Question**

First Iteration of the Soil Handling Management Plan (Appendix M) August 2022

- o The plan should apply to all soils affected by the scheme
- o For agricultural soils, topsoils and subsoils should normally be restored to a combined depth of 1.2m. To reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.
- o We welcome use of the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) to guide soil management during construction. However alongside this there should also be a commitment for 'best and most versatile' (BMV) agricultural temporality required for the development to be returned back to its original ALC grade.
- o A more detailed sampling is needed for the ALC survey to form a comprehensive Soil Resources Survey in line with the Defra Construction Code.
- o Soil handling should normally be avoided during November to March inclusive. Soils should only be handled in a dry and friable condition. A field suitable method for assessing whether soils are in a dry and friable condition based on plastic limits is set out in Part One (Explanatory Note 4 – Table 4.2) of the Institute of Quarrying's Good Practice Guide for Handling Soils in Mineral Working , and this approach together with the associated rainfall protocols should be adopted
- o Apart from the replacement of topsoil (using the modified loose tipping method of soil replacement), use of bulldozers should not be permitted for any soils being returned to best and most versatile quality due to the high risk of soil compaction due to repeated trafficking. To minimise risk of soil damage, best practice is for soils to be stripped and replaced by excavators and dump trucks using the methods described in the Defra Construction Code.
- o In addition to topsoil and subsoils being stored separately, different soil types as identified from the soil resource survey, will also need to be segregated and stored separately.
- o To minimise the risk of internal compaction and maximise soil aeration, best practice is for soil stockpiles heights to be a maximum height of 3m for topsoil and 5m for subsoil.
- o Soil stockpiles should also be seeded if in place over the winter period
- o Where soils are being reinstated, there should also be a specific commitment for 'best and most versatile' (BMV) agricultural land temporality required for the development to be returned to its original Agricultural Land Classification (ALC) grade

To reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.

- o Clarification requested on what 'substrate' in this

context means (Para M.7.6 and M.7.9 -). o To minimise risk of soil damage, best practice is for subsoils to be replaced by excavators and dump trucks using the loose-tipping methods described in the Defra Construction Code. Use of bulldozers should not be permitted for any subsoils being returned to best and most versatile quality. o Clarificaton is required on how long a period of aftercare is envisaged should be provided.

**Applicant's Response**

Please refer to the Applicant's responses to RR-184-012, RR-184-013, RR-184-014, RR-184-015, RR-184-016 and 184-017 [REP1-002] which address these points in full.

**REP2-091-017**

**Sub-Question**

2.8 Conclusions

2.8.1 Natural England has reviewed the Environmental Statement (ES), Habitats Regulations Assessment (HRA) and accompanying documents and is broadly satisfied that impacts to statutorily designated sites can be ruled out. We are awaiting further information regarding impacts to soils before we can provide further comments.

**Applicant's Response**

The Applicant welcomes Natural England's support of the conclusions presented in the Habitats Regulations Assessment: No Significant Effects Report [APP-201].

The Applicant is finalising an updated Agricultural Land Classification (ALC) Report (in addition Appendix 10.2: ALC Survey Report [APP-143]) which will be submitted to the Examining Authority is due course.

	<b>REP2-091-018</b>
<b>Sub-Question</b>	
Annex A: Natural England's answers to first written questions from the Examining Authority	
<b>Applicant's Response</b>	
<p>The Applicant acknowledges Natural England's response to the first written questions from the Examining Authority. Responses are provided where appropriate in the Applicant's Comments on responses to ExQ1 [TR010060/EXAM/9.32]. The Applicant will be commenting on Natural England's response where appropriate for Deadline 3.</p>	
<b>Addleshaw Goddard on behalf of Network Rail Infrastructure Limited</b>	<b>REP2-092-001</b>
<b>Sub-Question</b>	
<p>Summary of Written Representation</p> <ol style="list-style-type: none"> <li>1. Network Rail Infrastructure Limited (Network Rail) does not object in principle to the A12 Chelmsford to A120 widening scheme (Proposed Development). However, it objects to works being carried out on, and any compulsory powers being granted or executed, in relation to, or impacting on, operational railway land which it relies for the carrying out of its statutory undertaking.</li> <li>2. The Applicant and Network Rail are in discussions in relation to the Proposed Development. However, to date, Network Rail have not received the specific information required from the Applicant to assess the extent of impacts in full. This information was first requested on 8th August 2022 and further requests for details have been made on a regular basis. It is also understood that once this information is provided, it may change during the lifetime of the Proposed Development. Therefore, Network Rail will continue to work with the Applicant during the lifetime of the Proposed Development to ensure the Proposed Development can be delivered</li> </ol>	

without negatively impacting the railway and the development of Beaulieu station.

### **Applicant's Response**

The Applicant acknowledges that Network Rail (NR) does not object in principle to the A12 Chelmsford to A120 widening scheme (Proposed Development).

The information which NR requested on 8 August 2023 was required by them for their internal land clearance process. The Applicant supplied that information to NR on the 10th August 2022. This has led to a number of further requests for information and clarification from NR. The Applicant is committed to working with NR and has continued to provide information as requested.

**REP2-092-002**

### **Sub-Question**

3. Network Rail has five primary concerns relating to the effect of the Proposed Development on its ability to protect and enhance the operational railway. In summary these are:

a. Restrictions on access and maintenance;

Network Rail's access to the Great Eastern Main Line which is required to ensure the line can be safely maintained would be restricted by the Proposed Development.

### **Applicant's Response**

The Applicant notes Network Rail's concerns over protection and enhancement of the operational railway and we will continue to collaborate with NR.

The Applicant will provide suitable access to Network Rail and ensure suitable notice and durations and confirm and agree any alternative routes in advance, through a weekly telecon with both parties. There has been a series of weekly meetings to resolve

any issues. The most recent meeting was a face to face technical meeting to progress NR Clearance on 2nd March 2023, with a useful exchange of information.

**REP2-092-003**

### **Sub-Question**

b. Signal sighting;

The Proposed Development will impact on sighting of Network Rail signals to train drivers, this is a concern which cannot be resolved by Network Rail modifying its infrastructure, it therefore necessitates modifications to the design of the Proposed Development

### **Applicant's Response**

The Applicant acknowledges NR's concerns regarding signal sighting that unfortunately have only recently been raised, as the NR clearance process requires only land plans to be submitted. The Applicant believes it unlikely that there will be any signal sighting issues once NR reviews the available engineering plans. The Applicant will ensure, in coordination with NR, that the permanent works do not affect signal sighting for either the current layout or the proposed 3 track layout as Beaulieu Park Station is developed.

The Applicant received further information in relation to the Beaulieu Park Station on Friday 3rd March 2023 and will continue to work with Network Rail and other interested parties to ensure that any issues are worked through during detailed design phase.

Should these concerns relate to the Paynes Lane Bridge, the Approval In Principle and the Detailed Design will be sent to Network Rail for comment and approval prior to formal design completion by The Applicant. Where appropriate the Applicant will further consult with internal rail design specialists to work through any concerns raised by Network Rail to ensure a smooth approval process.

**REP2-092-004**

### **Sub-Question**

c. Beaulieu Station redevelopment;

This is an important redevelopment scheme not just for the growth of the railway but also for the wider regeneration of Chelmsford. The Proposed Development impacts on Plots that will be needed for access, parking, utilities and drainage to the new station and its car park. There is also expected to be an impact on the electrification of the lines due to the height of the proposed Paynes Lane Footbridge and concern that Network Rail will lack sufficient space beneath the Footbridge to add a proposed third line of rails in connection with the new station.

### **Applicant's Response**

The Applicant supports the new Beaulieu Station redevelopment and the wider regeneration of Chelmsford and is working with Network Rail and Murphys, NR's contractors.

Once review of the information received from Network Rail on 3rd March 2023 for the Beaulieu Park Station and associated rail infrastructure design is complete, the Applicant will review in detail and ensure any clashes are avoided and protect any Network Rail Assets that interact with The Proposed Scheme.

Paynes Lane footbridge will stay outside of the Network Rail boundary fence and therefore not impact on the realignment and additional track required for the Beaulieu Park Station.

Paynes Lane Bridge, as shown on Sheet 2 of 30 in the Structures Engineering Drawings and Sections [APP-032] shows the existing overhead line equipment with the necessary clearance envelope around the OLE.

Any minor adjustments required to stay out of the overhead line equipment (OLE) envelope are well within the limits of deviation and therefore will not affect The Application or any Network Rail assets.

**REP2-092-005**



**Sub-Question**

d. Boreham Viaduct; and

The proposed wall alongside the viaduct and rights of access beneath it would prevent access to the southern face of Boreham viaduct, and both wingwalls of the same. Such lack of access would hinder Network Rail's ability to undertake routine access, maintenance and/or repairs to the viaduct.

**Applicant's Response**

The Applicant notes that the DCO extent is adjacent to the Viaduct. However, the proposed retaining wall is at least 7 metres away from the Boreham Viaduct. The Applicant's proposed rights for access over plot 2/17i beneath Boreham Viaduct would not prevent Network Rail from accessing or maintaining their structure.

Should maintenance, inspection, repairs to the viaduct, or any intervention under Section 14 of the Railway Regulation Act 1842 be required, the Applicant would agree a safe and suitable access over plots 2/17i 2/17j.

As a result of the protective provisions in the dDCO the Applicant may only take any land or rights by agreement and any right of access may only be extinguished or suspended with NR's agreement.

As a result of it's clearance process NR will almost certainly reserve rights to take any access that it needs to railway property.

**REP2-092-006**

**Sub-Question**

e. Existing infrastructure including drainage and embankment stability;

Network Rail is concerned about additional strain on its existing infrastructure, in particular about the overbridge near junction 24, as it understands that the Proposed Development will result in an increase in traffic sing the existing bridge. There is also concern

about and works at Plots 2/17g and 2/7m which would lead to structural implications relating to the stability of the existing railway embankments.

### **Applicant's Response**

The traffic impact on the overbridge at New Lane, Feering (near junction 24) is expected to be small, with around 20 to 50 additional vehicles per day predicted to use the bridge as a result of the proposed scheme.

With regards to the proposed scheme drainage requirements (Works at Plots 2/17g and 2/17m), the Applicant is in discussion with Network Rail. The drainage design proposal will be worked through in detailed design with due consideration of the potential interface with the existing railway embankment and agreed with Network Rail.

**REP2-092-007**

### **Sub-Question**

4. Until such time as Network Rail is given the protection and assurances requested as detailed in its full Written Representation (submitted alongside this summary), including appropriate protective provisions being included in the proposed order, Network Rail's objection to the proposed order cannot be withdrawn. As set out in the Written Representation, Network Rail requests that its bespoke protective provisions replace those at Part 6 of Schedule 11 of the proposed order.

5. If sufficient progress regarding the protective provisions for railway interests and the private agreement between Network Rail and the Applicant is not made in the coming weeks, Network Rail intends to attend a hearing in June to explain in further detail its concerns with the Proposed Development.

### **Applicant's Response**

The Applicant notes Network Rail's position in relation protective provisions and a legal agreement. Negotiations are ongoing between the parties in this regard.

**Oliver Lukies of Strutt & Parker on behalf of Gary  
and Victoria Woods**

REP2-093-001

**Sub-Question**

Our clients, Gary and Victoria Woods, have been registered as an Interested Party in this DCO application. Further to the initial representations submitted on their behalf when registering them as an Interested Party (Interested Party reference number is: 20033062), our clients own titles & . Plans submitted by National Highways as part of their DCO application propose to acquire part of both titles permanently. Furthermore, following discussions with Ardent and the VOA, both instructed on behalf of National Highways, we understand that plans are for existing overhead electricity lines to be undergrounded through our clients retained land and that there is the potential for a medium pressure cadent gas pipeline diversion to also be run through this retained land. As outlined above there are development hopes for this land and these plans have the potential to sterilise this opportunity. Therefore, our clients object to the undergrounding of utilities, particularly any gas infrastructure, through their retained land. In discussions with Ardent and the VOA we have secured a replacement access to the clients retained land, which is shown in the plans submitted as part of the DCO application. Furthermore, Nick Dexter of Ardent has confirmed/provided a commitment via email that the ownership of this access would be transferred to our clients once the works have been completed. Whilst this confirmation is welcomed and appreciated we have asked for an assurance/statement of common ground to be provided outlining this commitment, which we have not yet received. We request that this is provided to our clients to alleviate their concerns on this matter. Our clients are willing to consider acquisition of land required for the scheme by agreement and through ourselves have made efforts to advance these discussions with the VOA, instructed to act on the matter on behalf of National Highways, however lack of timely responses from the VOA have slowed negotiations considerably. We request that the VOA make a concerted effort to improve their efforts in responding to us in this regard. Oliver Lukies & Michael Anderson of Strutt & Parker For and on behalf of Gary and Victoria Woods

**Applicant's Response**

It may be possible to transfer the ownership of the newly constructed access beyond the extent of the final highway boundary to Mr and Mrs Woods, subject to any necessary reservation of rights for utility companies or for access by other parties. The Applicant will continue to work with landowner to seek to agree the future ownership of the access.

A draft SoCG has been provided to Strutt & Parker on 31 January 2023.

The VOA last held a meeting with Strutt and Parker regarding acquisition of the land by agreement on 20 January 2023. It was agreed these discussions would be progressed once the response to the relevant representation has been reviewed by the Interested Party and their agent. Most recently the VOA provided figures in respect of acquisition by agreement to Strutt and Parker on 6 February 2023 and this is currently under discussion. One element of the claim has been agreed, whilst agreement on other heads of claim is yet to be reached.

**Oliver Lukies of Strutt & Parker on behalf of Mr  
Gerrard and Mrs Jayne Bibbey**

**REP2-094-001**

**Sub-Question**

Mr Gerrard and Mrs Jayne Bibbey (â€œour clients') own parcels ), (known as land on the ) and separately ). (known as 1 Further to the initial representations submitted on their behalf when registering them as an Interested Party (Interested Party reference number is: 20033125), Parcels form part of our client's business and ) which includes . The accommodation available includes 5 Glamping Pods and 5 Hook up Touring caravan pitches.

**Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-094-002**

### Sub-Question

This business is successful and a community asset and the current A12 Chelmsford to A120 widening proposals stand to have a significant negative impact on both the running of the business and its customers enjoyment of it. Our clients comments / Objections: â€¢ Plans submitted by National Highways as part of their DCO application propose to acquire the western part of the parcel running adjacent to the A12 with the proposed ownership boundary abutting to the fishing lake. This would have a detrimental impact on their business as it could prevent anglers accessing the northern area of the lake to fish and cut off use of the car park currently in situ. We would therefore argue the boundary be pushed further back to the A12 to allow reasonable access to the lake by both anglers and vehicles.

### Applicant's Response

As noted by the Applicant in the response to the Interested Party's Relevant Representation RR-039, work is ongoing to refine the detailed design to achieve an arrangement which allows the Applicant to achieve sufficient embankment slope width, proposed vegetation planting, sufficient footway width and offset from embankment slope, and construction of a boundary fence in this area while satisfying the Interested Party's concerns. Refer to response to Relevant Representation (RR-039) in the Applicant's Response to Relevant Representations [REP1-002] for more details.

**REP2-094-003**

### Sub-Question

Our clients want an assurance that access to their site will be available, prior, during and post construction with adequate signage to the fishery in place on the A12 from the South Bound and North Bound directions, to limit the impact on the business and its customers.

### Applicant's Response

The Applicant would maintain access as far as reasonably practicable to the fisheries, however, there would be situations, for short durations, such as when the junction 22 road tie ins are constructed where access may not be possible from the north of Little Braxted Lane.

These closures would be kept to a minimum to reduce disruption on the business and access from the south would still be maintained.

The Applicant would communicate these as early as possible with the Interested Party. Section 3.1 of the Outline Construction Traffic Management Plan [REP2-003] provides further detail. During construction, appropriate temporary signage would be provided confirming that the fishery is accessible.

The signing proposed for post-construction would mimic the existing signing at junction 22. The existing signing does not provide directional signing from the B1389 (near junction 22) or the A12 mainline to the fishery, so neither will be proposed.

**REP2-094-004**

### **Sub-Question**

As part of National Highways' proposals they seek to reduce the height of the bund currently in place by greater than 2 metres in places. This was constructed by the owners to reduce noise from the A12. My clients propose this stays at the same height in order to mitigate any further sound from the road. If there is no way for the bund height to remain as it is currently, then our clients would request that sound boarding is put in place to mitigate noise pollution from the A12. Furthermore, should any of the 6ft high otter fencing currently in place be damaged or removed in construction then this must be replaced.

### **Applicant's Response**

The Applicant has responded to this concern in Sub-Part Reference RR-039-003 within the Applicant's Response to Relevant Representations - Rev 2 [REP1-002] that was submitted at Deadline 1.

REP2-094-005

**Sub-Question**

National Highways have proposed a new footpath / bridleway be included, running along the proposed boundary of , adjacent to the A12. The footpath would use the same access as the anglers and give access the fishing lake. My client strongly opposes this, as it would have a detrimental impact on the business by taking away privacy from anglers using the lakes. It would also increase the risk of trespass to the wider ownership of the fishing lakes and increase potential for poaching. We propose this additional right of way be removed completely from the scheme proposals.

**Applicant's Response**

As noted by the Applicant in the response to the Interested Party's Relevant Representation RR-039 [REP1-002], in light of the concerns raised by the Interested Party, the Applicant is exploring alternative alignments for providing a Public Right of Way route to Little Braxted Bridge. The Applicant intends to address the severance of the existing legal right of way for pedestrians across the A12 whilst minimising impacts on the fishing lakes.

REP2-094-006

**Sub-Question**

The current proposals show attenuation ponds to the North of the fishing lakes. The plans indicate the outfall will run onto Mr and Mrs Bibbey's land. If potentially polluted water from the A12 enters their fishing lakes, it could pollute the lakes and affect the health of their fish. We propose all outfalls be positioned away from Mr & Mrs Bibbey's land to reduce this risk. Furthermore, given the risk of pollution our clients have requested that the drains are widened and the ditches are rubber lined to reduce the risk of said pollution killing their fish stock. It is important to note that these ditches also run into the River Blackwater.

## Applicant's Response

As explained in the Applicant's response to the Interested Party's Relevant Representation RR-039-005 [REP1-002], the outfalls from the proposed attenuation ponds would be to the existing watercourse. There would not be any direct discharge to the land to the south from the proposed scheme's surface water drainage. The proposed surface water drainage outfalls and flows would seek to mimic the existing discharge arrangement from the existing road drainage catchment (Surface Water Drainage Strategy [APP-174], sections 4.8 to 4.10, section 7 and 10). It is not feasible to locate the outfalls elsewhere that would maintain the existing discharge arrangement due to hydraulic and environmental constraints. However, the current preliminary design outfall arrangements to the watercourse will be reviewed as part of the design development process including any requirements for scour protection in the watercourse at the outfall points. Appropriate pollution control measures would be provided in accordance with the requirements of Design Manual for Roads and Bridges LA113 and would be incorporated as part of the proposed scheme surface water drainage system. Water quality monitoring will be provided at this location which will allow all parties to better understand the existing and future impacts of the proposed scheme and identify if or where there may be any significant risk. The Water Quality Assessment Report [APP-158] did not find any significant risk of pollution of water. The suggestion of widening and lining the watercourse is noted, however, it is not currently proposed to either widen or line the watercourse other than undertaking some localised ditch regrading works. This is because it is considered that the proposed scheme would provide a reduced risk of pollution to the watercourse as a result of the inclusion of Sustainable Drainage Systems and the proposed restricted discharges on the majority of this specific road drainage catchment (Surface Water Drainage Strategy [APP-174], sections 4.2 and 11). It is noted that the watercourse runs into the River Blackwater.

**REP2-094-007**

## Sub-Question

We and our clients are in ongoing discussions with National Highways representatives about the above issues but are yet to receive satisfactory assurances from them to any of them.



### Applicant's Response

The Applicant has responded to the outstanding issues set out in this written representation. The Applicant also provided responses to concerns within the Applicant's Response to Relevant Representations - Rev 2 [REP1-002] that was submitted at Deadline 1. Refer to RR-039 within that document.

The Applicant is committed to continuing to engage with the Interested Party to resolve ongoing concerns.

### Pegasus (Prested) Investments Limited group

REP2-096-001

### Sub-Question

Pegasus Prested Investments Limited ('PPI Ltd' - Co no 11230014) is registered as an interested party in relation to these proposals (registered party number (20033132). It has a number of subsidiary companies which are involved with business activities at Prested Hall which include:

- A wedding business (inc hotel)
- A spa
- Gym/pool/fitness club
- Serviced apartments

One of these wholly owned subsidiary companies, Bluemoor Properties Ltd company no 07247080, owns land within the Order limits. PPI/Bluemoor Properties Ltd reserves the right to object to the proposed compulsory acquisition of its land on grounds that the proposals are likely to make a significant negative impact on its business activities and that insufficient work has been done to consider the impacts of the proposals on its business. In addition inadequate consideration has been given to the proposed accommodation works which should, if effective, mitigate the impact of these proposals.

### Applicant's Response

The Applicant notes the Interested Party's comments.

REP2-096-002

**Sub-Question**

Our client has now seen the representations made by National Highways in response to its original objection to the scheme (RR-034-001) Our client is not satisfied that the impact of the proposals on the business activities at Prested Hall has been fully and seriously considered. In particular, the wedding/event business relies on its pleasant setting, including the attractive drive into the property; the current ability to use the outside space for weddings (including photography) is crucial to the success of this business. The ability for overnight guests to sleep well is significant for customers of the serviced apartments/hotel and the ease of access is significant for all customers - but in particular those using the gym/spa regularly who may be put off by an increased/ more difficult journey time. The compulsory acquisition of land and implementation of the scheme will bring the A12 and all the physical impacts of that realigned route including noise, vibration, dust, light etc closer to Prested Hall which will be both intrusive and off-putting for customers and will impact on the business operations. The proposed revised access for Prested Hall will be significantly more convoluted and add to business customer's journey time - particularly for those travelling south off the A12. A recent survey of members to the gym which elicited around 67 responses confirmed that: Around 22% of those sampled said their route was 'north of A12'; around 69% of those sampled said their route was 'south of the A12'; 9% did not specify a route. Around 43% of those who responded had a current journey time to the gym of under ten minutes; A further 40% of those sampled had a current journey time to the gym of between 10-20 minutes. A further 15% of those sampled had a current journey time to the gym of over 20 minutes. Many of the feedback forms cited convenience and locality as a key factor for their choice of gym. The previous submission on behalf of our client highlighted that the revised access to Prested Hall will add significantly to journey time, especially for those travelling on the southbound A12. Given the likely impact on journey time the proposals will have on our client's customers (many of whom it is known from the recent survey value a local/convenient location) the proposals are likely to have a significant detrimental impact on our client's business concerns; National Highways has stated the route design was chosen for efficiency and least impact on trees. The impacts on our client's business concerns have not been considered and there has certainly been no dialogue between National Highways and our client about how our client and its business interests will be supported during the construction phase and beyond. Our client maintains that the arrangements for access to Prested Hall which form part of the wider proposals are unacceptable.

## Applicant's Response

Prested Hall was included as a construction and vibration receptor in the noise and vibration assessment (represented by receptor 32, as identified on Figure 12.3 of the Environmental Statement [APP-230]). As per Sections 12.9 and 12.11 of Chapter 12: Noise and vibration [APP-079], no significant adverse construction noise or vibration effects were identified for receptor 32.

Notwithstanding this, construction noise and vibration would be reduced where practicable through the implementation of standard mitigation measures, as described in Section 12.10 of Chapter 12 [APP-079] and secured through NV1 and NV4 in the Register of Environmental Actions and Commitments (REAC) [APP-185]. During operation, for noise there would be a predicted reduction in noise of 1.7 dB(A) (minor benefit) at Prested Hall. Although the predicted increase in traffic (flow and speed) and the alignment change would cause an increase in noise around this location, this would be offset at Prested Hall by the planned resurfacing of the concrete surface on the A12 with low noise surfacing (as committed by NV6 in the REAC [APP-185]). The noise change is shown on sheet 9 of Figure 12.8 of the Environmental Statement [APP-235].

The air quality assessment outlined in Chapter 6 of the Environmental Statement [APP-073] considered construction dust impacts in accordance with the Design Manual for Roads and Bridges (DMRB) LA 105 and the Institute for Air Quality Management (IAQM) publication Guidance on the assessment of dust from demolition and construction (Version 1.1). The construction dust assessment determined that without mitigation, construction of the proposed scheme would give rise to a high risk of dust based on receptor numbers and a large potential for dust emissions. However, it concluded no significant effects based on application of best practice and appropriate mitigation measures through the Dust Management Plan [APP-189].

The Environmental Statement Chapter 8: Landscape and visual [APP-075] considers the significance of effect of both day and night-time changes for landscape and visual receptors in line with the requirements of the DMRB LA 107 Landscape and Visual Effects, Revision 2. The assessment considers effects of construction lighting, highway lighting and vehicle lights. During construction, temporary lighting would be provided to ensure safe working conditions and to maintain security within construction compounds and working areas. Best practice measures would be implemented where practicable to ensure temporary lighting is avoided or directed away from sensitive receptors, as per commitment LV7 in the REAC [APP-185]. During operation, the A12 mainline would not be lit, however, there would still be light from vehicles using the road. Tall screen planting and linear woodland planting of trees and shrubs (as shown on Sheet 15 of the Environmental Masterplan, part 3 [APP-088]) would help to filter views of

traffic on the offline bypass between junction 24 and junction 25 once established by year 15 (see representative viewpoint 18 in Environmental Statement Appendix 8.3: Visual Effects Schedule [APP-121]), however significant adverse visual effects would remain due to the presence of new structures, severance of the formal driveway/avenue to Prested Hall and closer proximity of major infrastructure.

As stated in the Applicant's response to RR-034-001 (which can be found in Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]), alternative locations and alignments of the new access to Prested Hall were considered. These are described in the Environmental Statement Chapter 3 – Assessment of Alternatives Table 3.4 [APP-070].

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 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.

Regarding the Interested Party's concerns over previous dialogue with the Applicant, a response is provided in [REP2-096-003].

**REP2-096-003**

**Sub-Question**

In the absence of any reassurance that the proposed accommodation works will demonstrably be able to ameliorate these detrimental impacts, our client objects to the compulsory acquisition of its land due to the serious impact the compulsory acquisition will have on its business activities. National Highways has stated in its response that the applicants will continue to engage with Prested Hall as the landscape designs are developed. Our client is unaware that there has been any significant engagement to date and seeks; (i) confirmation that there will indeed be some engagement with National Highways at any early stage; (2) the opportunity to review the proposed mitigation proposals insofar as they relate to Prested Hall, so that it can be confident that the proposed measures will provide effective noise and visual screening to minimise impact on this business; and (3) an adaptation to the proposals so that equivalent access can be provided to Prested Hall (and its various business operations) both during construction and operation. Without such reassurance, our client must maintain an objection to the compulsory acquisition of its land.

### **Applicant's Response**

The Applicant has held engagement meetings with Bluemoor Properties Limited (freehold owners of the land) on 17 September 2020, 25 November 2020, 14 June 2021 and 23 June 2022. These meetings provided scheme updates to the Interested Party, provided responses to any concerns raised and made changes where possible to the design to mitigate the impacts.

The Applicant is willing to continue to engage to work towards solutions to mitigate the impacts on the Interested Party's business and has made contact with the Interested Party to arrange a further meeting.

The Applicant explored alternative locations and alignments of the new access. These are described in the Environmental Statement Chapter 3 – Assessment of Alternatives Table 3.4 [APP-070]. The proposed access was found to result in the most efficient, safe design and have the least impact to the trees on the existing access. It also ensured that access could be provided at all times throughout construction, apart from when undertaking tie-in works or similar, when advance notice will be given following engagement with the Interested Party on appropriate timings for the works.

With the scheme, a reduction in noise of 1.7 dB(A) (minor) is predicted at Prested Hall due to the resurfacing of the concrete surface on the A12 with low noise surfacing. The predicted noise change is shown on sheet 9 of Figure 12.8 [APP-235].

## **Pinsent Masons LLP on behalf of Edmundson Electrical Limited**

REP2-099-001

### **Sub-Question**

1. SUMMARY 1.1. Edmundson Electrical Limited (EEL) submitted a relevant representation [RR-030] in respect of National Highways' A12 Chelmsford to A120 Widening Scheme (the Proposed Development), objecting to several aspects of the proposals. EEL has considered the proposals in more detail and has expanded upon its objections in this written representation. 1.2. This representation covers key issues such as alternatives, the statutory powers sought by National Highways, and safety and security. In addition, EEL has jointly instructed (with Royal London) Caneparo Associates as traffic and transport experts to input into this representation, and their report is provided at Appendix 1. 1.3. EEL continue to have significant concerns in relation to the Proposed Development. Nonetheless, EEL and its advisers remain willing and able to engage with National Highways in respect of the Proposed Development and look forward to discussing the issues further.

### **Applicant's Response**

The Applicant notes the Interested Party's comments

REP2-099-002

### **Sub-Question**

2. INTRODUCTION 2.1. This written representation is submitted by Pinsent Masons LLP on behalf of its client, EEL, in respect of the Proposed Development. The nature of the impact of the Proposed Development on EEL's land interests is summarised in EEL's relevant representation and is not repeated here. 2.2. Since the submission of that relevant representation, EEL has continued to engage with National Highways, has observed the Preliminary Meeting and Open Floor Hearings on 12 January 2023, and also has considered various relevant documents submitted to the examination, including National Highways' response to its

relevant representation [REP1-002]. 2.3. EEL continues to have significant concerns in relation to various aspects of the Proposed Development and therefore maintains its objection. This representation elaborates on EEL's key issues with the Proposed Development. It should be noted that EEL has collaborated closely with Royal London, as landowner of the affected land, in respect of the preparation of this written representation. Royal London makes reference in its submission to points articulated in detail in this written representation. 2.4. Whilst there has continued to be some initial engagement from National Highways in relation to the impact of the Proposed Development on EEL, the parties have not been able to reach any agreement on the principal issues. EEL remains committed to engaging with National Highways in respect of the Proposed Development but will maintain its objection until those issues have been resolved satisfactorily. EEL reserves the right to make further representations during the course of the examination and, to the extent that any further issues arise, any subsequent representations will not necessarily be limited to the topics raised in this representation.

### **Applicant's Response**

The Applicant has met with the Interested Party and will continue to engage with them, to explain the limited, and temporary, requirement for access over the relevant land.

**REP2-099-003**

### **Sub-Question**

3. ALTERNATIVES 3.1. This was raised as a key issue in EEL's relevant representation. Since submitting that representation in November 2022, EEL has had an opportunity to scrutinise the application documents in more detail and discuss the proposals with National Highways and its consultants in a meeting. 3.2. On a related note, EEL supports the submission made by Maldon District Council at the Preliminary Meeting that there needs to be consideration during the examination of the operation, land access and maintenance in respect of the proposed gas pipeline diversion. 3.3. EEL remains wholly unconvinced by the approach taken by National Highways in respect of alternatives at this site. EEL has not been presented with any robust evidence to demonstrate that the land it leases (i.e. plot numbers 1/10f and 1/10g) should necessarily be directly affected by the Proposed Development.

Currently, the rationale for the impacts on EEL as a result of the Proposed Development are unsubstantiated and unjustified. 3.4. EEL considers that there are several reasonable and feasible alternative options / routes which must be considered in more detail by National Highways and as are highlighted within Appendix 1. EEL requests that National Highways responds in detail to the suitability of each of the alternatives raised within Appendix 1 and explains why each has not been progressed. 3.5. EEL notes that Cadent is referred to in article 12(5)(c) of the dDCO. This provides that the Secretary of State's consent would not be required if National Highways were to transfer or grant any relevant statutory provision within the dDCO for the purposes of undertaking any works relating to its apparatus set out in Work No.U2. We assume that the intention behind this provision is that Cadent will undertake Work No.U2. If that is the case, it is unclear why Cadent cannot use their own compound to access the works? EEL notes that National Highways agreed recently to explore this alternative further with Cadent. EEL requests an update on these discussions 3.6. As an additional alternative, which has been raised in recent discussions with National Highways, access to the relevant work site could be made directly from the A12 northbound carriageway. National Highways has suggested that this would be unsuitable due to the significant difference in ground levels and the amount of groundworks that would be required between the work site and the northbound carriageway. EEL disputes this analysis and does not consider that the difference is so significant that this alternative should be ruled out.

### **Applicant's Response**

The Applicant notes the comments raised and has been engaging with the Interested Party. During the discussions the Applicant has explained in detail the reasons why access is required through plots 1/10f and 1/10g, and why other alternatives have been discounted. These reasons have been summarised below using the references shown on Plate 5: Alternative Options within the documentation provided by the Interested Party [REP2-100].

#### **Ref 1**

The Applicant has had further discussion with Cadent about the access through Cadent's Above Ground Installation and have been informed that they have identified that the existing access road does have high-pressure pipework traversing under it at shallow depths in multiple locations. There is also shallow ducting for electrical cables and flow and return water piping. In its current state, access is only suitable for light vehicular access through the Above Ground Installation for sporadic maintenance purposes only,



therefore making Ref 1 an unsuitable route.

Ref 2

Ref 2 is not a suitable access route due to it running on top of the existing high pressure gas main that feeds the Above Ground Installation. Additionally there are overhead 11kV powerlines and a watercourse.

Ref 3

Due to the level differences between the works area and the A12 northbound carriageway, there would be the requirement for substantial temporary works to construct a safe and suitable access to the works area. This would require multiple HGV movements to remove part of the embankment, move the material off site and additional movements to then transport suitable material to create a sloped access, this would put additional HGVs in an already busy area of the A12.

For safe access and egress temporary traffic management would be required on the A12 carriageway. The traffic management would have to run along the A12 mainline and the junction 19 northbound exit slip, up to the roundabout. The reason for this is that works traffic would not be able to safely egress from the traffic management, as this would be in the weaving zone for traffic looking to exit the A12 at this junction. During peak traffic hours traffic currently queues from the junction 19 northbound exit slip onto the A12 mainline, by putting traffic management on the A12 and exit slip at this location would reduce the capacity of the junction, thus making queuing on the A12 mainline worse.

Ref 4

Access would be required to both sides of the existing A12 carriageway for the gas diversion connections, therefore Ref 4 is already one of the Applicant's proposed options to access the diversion.

**REP2-099-004**

**Sub-Question**

4.1. EEL and Royal London have jointly instructed expert traffic and transport specialists Caneparo Associates in respect of the

Proposed Development. Caneparo Associates have analysed key application documents including relevant sections of the Environmental Statement and the Outline Construction Traffic Management Plan [APP- 272 to APP-277] to analyse the likely impacts of the Proposed Development on EEL and Royal London. Their report is found at Appendix 1 to this representation. 4.2. In terms of key measures that EEL is seeking in addition to those listed in Appendix 1, it considers that a separate Construction Traffic Management Plan relevant to the works at Junction 19 is needed, and this should be secured as a Requirement in Schedule 2 to the draft DCO. EEL and Royal London should be consulted before that plan is finalised, and commencement of the relevant works must not be commenced until it has been approved by the local highway authority. This would be a more suitable approach rather than a Construction Traffic Management Plan relating to the entirety of the Proposed Development.

### **Applicant's Response**

The Applicant sees no need nor justification for the approach proposed.

**REP2-099-005**

### **Sub-Question**

4.3. As part of this proposal, EEL considers that the notice period where access to business premises will be affected by the Proposed Development is insufficient. Currently, paragraph 5.4.3 of the Outline Construction Management Plan provides for a minimum of 10 working days and EEL considers that this period must be extended to a more reasonable timeframe.

### **Applicant's Response**

The full paragraph 5.4.3 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] states 'In the occasional event that this would not be possible, the proposed scheme would engage with the affected stakeholder and ensure suitable arrangements are agreed. The proposed scheme appreciates that each stakeholder's access requirements would be different and would be dealt with on a case-by-case basis, to mitigate any impact. A minimum of 10 working days' notice would be provided (except in emergency) if access is to be restricted to a residential property or business premises'. The Applicant only requires to

drive across the Interested Party's land for access and would not restrict access to the Interested Party's business. 10 working days is a minimum and, in most circumstances, greater notice would be given through continued engagement between the Applicant and Interested Party via the Community Liaison Manager and stakeholder team, as detailed in section 3 of the OCTMP [REP2-003].

**REP2-099-006**

### **Sub-Question**

5. COMMERCIAL IMPACT OF THE PROPOSED DEVELOPMENT ON EEL 5.1. EEL is continuing to undertake an assessment of the implications for its business in view of the construction of the Proposed Development and in particular the required access through its premises to the works site for the gas diversion works. EEL will provide information on this point to the examination in due course to the extent it is appropriate and required. 5.2. In the meantime, EEL welcomes the Examining Authority's written question and request for information on this point at ExQ1 16.0.6 and looks forward to considering National Highways' response.

### **Applicant's Response**

The Applicant notes the Interested Party's comments and has responded to ExQ1 16.0.6 in its response to the first round of written questions [REP2-025].

**REP2-099-007**

### **Sub-Question**

6. STATUTORY POWERS SOUGHT IN THE dDCO 6.1. EEL's understanding from discussions with National Highways is that the intention is for National Highways to use plot numbers 1/10f and 1/10g for access (as outlined above), thereby enabling EEL to remain in possession of the relevant land. This is supported by the 'purpose' of the temporary possession as stated in Schedule 7 to the draft DCO i.e. "access for utility diversion works". Meanwhile, National Highways has indicated in its response that it will be using these plots as "...purely a route to transit from the public highway to the work site. The Applicant's construction vehicles would

not park or block access into Plot 1/10f during the construction works". EEL understands that the construction programme means that this access route will be used for approximately eight months. 6.2. EEL is concerned that National Highways' intention, as stated above, is not reflected in the temporary possession powers that it would be granted in the DCO. Given the breadth of statutory temporary possession powers, as provided for in article 40 of the draft DCO, EEL requires certainty on how these powers will be implemented. EEL requires an enforceable and binding mechanism which ensures that it will not be required to give up possession of the land, and that National Highways' use of the land for access would function alongside and without impact to EEL's occupancy. Without this mechanism, EEL faces significant commercial uncertainty. EEL looks forward to negotiating an appropriate legal agreement with National Highways (and Cadent) which makes provision for this. 6.3. As a separate and additional point, EEL notes the Examining Authority's written question and request for information at ExQ1 5.0.10. This relates to seeking further details to justify the extent of the land sought to be used temporarily. This is an issue that was raised in Royal London's relevant representation and EEL looks forward to reviewing National Highways' response. The context to this is that EEL would like to see a robust justification as to why it needs the full extent of plot numbers 1/10f and 1/10g when that strip of land is proposed to be used solely as an access route. Additionally and as set out in Appendix 1, these plots do not enable full access to the site intended for the gas diversion works and additional access is required through the gas compound to plot 1/10c and which is not included in the Order Limits.

### **Applicant's Response**

Temporary possession powers are not anticipated to be required over plots 1/10f and 1/10g save for short periods when required for health and safety reasons. Access is however required for a period of approximately eight to nine months for access to the adjacent working site, for works to the adjacent Cadent Gas compound. The Applicant understands that vehicular access through Cadent's own operational compound is not achievable because of the loadings anticipated on the existing underground apparatus operated by Cadent.

The Applicant confirms that the plots are required to access from the public highway to the work site. The Applicant's construction vehicles would not park or block access into Plot 1/10f during the construction works.

The temporary access sought is required for works to Cadent's adjacent compound. The connection works within the compound

could not take place without Cadent's consent and under Cadent's full control and therefore it was not felt necessary to include the compound within Order limits. The access effected through plots 1/10f and 1/10g is also required to works to the gas main located within plot 1/10c and 1/12a.

The Applicant will look to progress a licence for access and rights for the proposed use of plots 1/10f and 1/10g and notes the initial proposals for terms advanced in paragraph 55 of Caneparo Associates'

Report provided with the written representation of Edmundson Electrical Limited.

**REP2-099-008**

### **Sub-Question**

7. SAFETY AND SECURITY 7.1. EEL has a number of key concerns relating to safety and security in respect of the Proposed Development as set out in Appendix 1. 7.2. In addition, the proximity of its site to Work No.U2 is a significant concern where National Highways / Cadent will be undertaking the diversion of what is described in the draft DCO as a "buried local high pressure gas pipeline". These proposed works are significant, and the "high pressure" element increases the risk of potential implications and dangers. EEL is concerned to ensure the safety and wellbeing of its staff and any other visitors to its site on Sheepcotes. It has sought clarification from National Highways on whether there is proposed to be any exclusion zone and it was understood that National Highways would be discussing this issue with Cadent. EEL has not yet received an update on this point and looks forward to being provided with more information at the earliest opportunity. Further detail is requested as to the times of day or restricted hours these works are intended to be carried out.

### **Applicant's Response**

The Applicant notes the issues raised by the Interested Party. Suitable fencing would secure the construction site and the majority of the works would be undertaken during normal working hours. The concerns with regards to security are noted and the Applicant would engage with the Interested Party with regards to suitable security measures. Additional security such as CCTV covering the

works area would be considered by the Applicant.

The Applicant has previously responded to the Interested Party with regards to the proposed position of Work No. U2 in RR-032-003 Deadline 1 Submission - Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience this has been summarised below.

This is an existing gas asset which needs to be diverted, the options for its diversion are very limited. Alternatives were looked to the east and west but it has been concluded the route to the east was more appropriate due to the existing ditch network and other factors.

Work No. U2 is currently under detailed design by Cadent. There would be no exclusion zones that would disrupt EEL's day to day running or the health and safety of its employees.

**REP2-099-009**

### **Sub-Question**

8. VEGETATION REMOVAL 8.1. EEL notes on Sheet 1 of the Retained and Removed Vegetation Plans [APP-035] that there is a row of trees on the juncture of the land it occupies (plot number 1/10g, specifically) and plot numbers 1/10c (owned by Royal London) and 1/12a and 1/12c (owned by Cadent) which are "at risk of being removed". EEL objects to the removal of these trees given the visual screening they provide to the nearby A12 and the additional security this vegetation provides to the site. 8.2. EEL also considers that this row of trees provides noise screening from the A12 carriageways. EEL anticipates that this noise will only increase as a result of the widened dual carriageway next to the land it occupies, as shown on Sheet 1 of the Streets, Rights of Way and Access Plans [AS-027]. With reference to Sheet 1 of the General Arrangement Plans [AS-030], it appears as though these trees will not be replaced but EEL see no reason as to why they could not be replaced at the end of the works. 8.3. EEL also notes that some of the tree(s) noted on the above plan appear to fall outside of the Order limits i.e. the most southern part of the row of trees referred to above. EEL seeks confirmation from National Highways as to what authorisation or statutory power it will be relying on if it were to remove the full extent of these trees.

### Applicant's Response

The plots would be acquired temporarily for utility diversions. Vegetation removal and planting on temporary land is covered by clauses in the First Iteration Environmental Management Plan - Appendix A: Register of Environmental Actions and Commitments [APP-185].

LV4 states that 'Existing vegetation within the Order Limits including temporary works areas would be retained as far as reasonably practicable...'

LV7 states 'Where it would be necessary to remove vegetation within temporary works areas, such as construction compounds, utility routes, haul roads and regrading areas, this would be replaced on completion of construction using the same or similar species to that removed where practicable (subject to restrictions to planting over and around pipeline easements and consideration of species with regards to climate change and resilience to pests and disease, and landowner agreement). All land used temporarily would be restored and returned to an appropriate condition relevant to its previous use wherever practicable and appropriate, including the ripping, minor regrading and respreading of topsoil. Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed with landowner agreement.'

The Applicant will rely on the powers in article 46 of the dDCO to fell or lop the trees referred to.

**REP2-099-010**

### Sub-Question

9. CONSULTATION 9.1. EEL notes the Nationals Highways' response to its relevant representation in respect of consultation [REP1-002] and that National Highways states it sent various letters to our client. EEL confirms it has not received any of these letters. 10. CONCLUSION 10.1. EEL continues to object to various aspects of the Proposed Development for the reasons set out in this representation. It has significant concerns about the proposals in particular relating to the access proposed through its site, the traffic and transport impact and consequential operational impacts to its business, and security and safety concerns both around the access route and the gas diversion of a high pressured gas pipeline adjacent to occupied buildings and property. Further detail is

required. EEL has yet to be provided with robust justification that the access through its site is required by National Highways. 10.2. EEL and its advisers remain willing and able to engage with National Highways in respect of the Proposed Development and look forward to discussing further.

### **Applicant's Response**

The Applicant notes the Interested Party's comments and has dealt with them in its previous responses. The Applicant will continue to engage with the Affected Parties representatives.

## **Pinsent Masons LLP on behalf of Royal London UK Real Estate Fund**

**REP2-100-001**

### **Sub-Question**

1. INTRODUCTION 1.1. This written representation is submitted by Pinsent Masons LLP on behalf of its client, Royal London UK Real Estate Fund (Royal London), in respect of National Highways' A12 Chelmsford to A120 Widening Scheme (the Proposed Development). The nature of the impact of the Proposed Development on Royal London's land interests is summarised in Royal London's relevant representation [RR-032] and is not repeated here. 1.2. Since the submission of that relevant representation, Royal London has continued to engage with National Highways, has observed the Preliminary Meeting and Open Floor Hearings on 12 January 2023, and also has considered National Highways' response to its relevant representation [REP1-002]. 1.3. Royal London continues to have significant concerns in relation to various aspects of the Proposed Development and therefore maintains its objection. Several of the key issues have a direct impact on Royal London's land and its tenants. This written representation supports and endorses the submissions made by EEL in its written representation. Where relevant, this written representation sets out and expands upon key points which are relevant specifically to Royal London. For ease of reference, the same sub-headings are used in both written representations. 1.4. Whilst there has continued to be some initial engagement from National Highways in relation to the impact of the Proposed Development on Royal London, the parties have not been able to reach any agreement on the principal issues. Royal London remains committed to engaging with National Highways in respect of the Proposed Development



but will maintain its objection until those issues have been resolved satisfactorily. Royal London reserves the right to make further representations during the course of the examination and, to the extent that any further issues arise, any subsequent representations will not necessarily be limited to the topics raised in this representation.

### **Applicant's Response**

The Applicant notes the Interested Parties' position.

**REP2-100-002**

### **Sub-Question**

2. TRAFFIC AND TRANSPORT 2.1. Royal London and EEL have jointly instructed expert traffic and transport specialists Caneparo Associates in respect of the Proposed Development. Caneparo Associates have analysed key application documents including the Environmental Statement and the Outline Construction Traffic Management Plan [APP-272 to APP-277] to determine the likely impacts of the Proposed Development on EEL and Royal London. Their report is found at Appendix 1.

### **Applicant's Response**

The Applicant has reviewed the report provided. The conclusions are not accepted. The Applicant will engage with those representing the Interested Parties to discuss the content and conclusions of the report and will respond further following those discussions.

**REP2-100-003**

### **Sub-Question**

3. COMMERCIAL IMPACT OF THE PROPOSED DEVELOPMENT ON ROYAL LONDON 3.1. Royal London supports and

endorses the submissions made by EEL in its written representation on this topic. 3.2. In addition, Royal London is concerned that the Proposed Development will have a significant impact on the wider Springfield Business Park and its tenants as a result of the additional traffic within an already heavily congested area including Junction 19 of the A12 and therefore wants to see clear evidence as to the maximum vehicle and construction traffic movements which arise as a result of the Proposed Development and the gas diversion works and that National Highways has actively looked to reduce and mitigate potential impacts as far as possible.

### **Applicant's Response**

The purpose of the proposed temporary access is to reduce the need for lane closures on the adjacent A12 northbound carriageway and the need to temporarily close a section of the northbound off slip road at junction 19. If the access is not available for the works to the utilities' apparatus on neighbouring land then there would be significant impacts on the operation of junction 19. The impact is temporary in nature and is proposed to mitigate what would otherwise be a very substantially more significant impact on the operation of junction 19.

There is no prospect of the Applicant giving a maximum vehicle prediction for the proposed additional traffic but it is anticipated that, for each day the proposed access is in use, there would not be more than 20 vehicular movements in to and 20 movements out of the area of land in which the alterations to utilities apparatus takes place. It is clear that in the context of the daily traffic movements at junction 19, this is very small additional traffic level.

**REP2-100-004**

### **Sub-Question**

4. STATUTORY POWERS SOUGHT IN THE dDCO 4.1. Royal London supports and endorses the submissions made by EEL in its written representation on this topic. 4.2. Separately, Royal London is the landowner of plot number 1/10c. National Highways is seeking powers of compulsory acquisition of rights in respect of this plot (article 30 of the draft DCO). Article 40(1)(a)(ii) provides that National Highways would also have temporary possession powers in respect of this plot. The Book of Reference [APP-044] indicates that this plot would be both used temporarily, and new rights are to be acquired permanently. 4.3. Royal London seeks

clarity on the proposed terms of the temporary possession of that land. In addition, Royal London would like to have a detailed explanation of how National Highways would propose to exercise the compulsory acquisition of rights power in respect of these plots, such that Royal London can understand fully the impact of the Proposed Development on its site. 4.4. The details requested in the above paragraph also apply in respect of plot numbers 1/10a and 1/10b, which are plots made up of culverts and vegetation where Royal London is also landowner.

### **Applicant's Response**

The Applicant's Statement of Reasons [APP-042] at page 521, Table A.2, states temporary possession and permanent new rights are required over plot 1/10c for the following works:

U2: The diversion of a buried local high pressure gas pipeline of approximately 200 metres in length between the A12 northbound verge and the A12 southbound verge, south of the existing junction 19.

U2A: The diversion of an overhead 11kV electricity cable of approximately 125 metres in length between Winsford Way, Springfield to the west of the A12 northbound verge and to a point to the east of the A12 southbound verge.

Article 40 of the draft Development Consent Order (dDCO) [AS-020] providing for temporary powers would be exercised for the temporary possession of the plot for the required utility diversions to be carried out. The use of this power would enable the Applicant or the relevant statutory undertaker to take possession of the plot if required for health and safety purposes, to carry out the physical works.

Once the works are completed then the Applicant or the relevant statutory undertaker will rely on the permanent new rights authorised to be created by the dDCO for the permanent retention, use and maintenance of the diverted apparatus.

Sheet 1 of 21 [AS-009] show that plots 1/10a and 1/10b are the portals to culverts under the A12. The Applicant believes that with the improvements proposed to the A12 in this area it requires the ability to inspect and maintain the embankments supporting the A12, particularly to ensure the drainage for the A12 is functioning appropriately. The Applicant's Statement of Reasons [APP-042] at page 521 lists the reasons for the proposed new rights are:

- Access / working room to enable National Highways to undertake future maintenance.
- Access for inspection, maintenance, repair and clearing of culvert and retaining structures.

**REP2-100-005**

**Sub-Question**

5. SAFETY AND SECURITY 5.1. Royal London supports and endorses the submissions made by EEL in its written representation on this topic. 5.2. In particular, Royal London would like to emphasise the concerns raised by EEL in respect of the security of the site given the recent issues in the surrounding area, as referred to in EEL's written representation. As landowner, Royal London is keen to understand what thought has been given to safety and security and what potential measures National Highways is looking to put in place to ensure the site and the wider Business Park remain secure.

**Applicant's Response**

The Applicant will liaise with Royal London and its tenant to understand, and to comply with, their reasonable safety and security requirements.

**REP2-100-006**

**Sub-Question**

6. VEGETATION REMOVAL 6.1. Royal London supports and endorses the submissions made by EEL in its written representation on this topic. 6.2. Royal London would like to highlight that as landowner of plot numbers 1/10g and 1/10c, it is very concerned that trees on its land are "at risk of being removed". Royal London would like to understand whether this is entirely necessary and, if so, whether the impact has been minimised as far as possible. Royal London understands, with reference to Sheet 1 of the General Arrangement Plans [AS-030], that the relevant row of trees will not be replaced but would like to receive confirmation on the

position. Our client can see no reason as to why those trees could not be replaced at the end of the proposed works.

### **Applicant's Response**

Plots and 1/10g would be used temporarily for utility diversions and 1/10c would be used to facilitate these diversions. Vegetation removal and planting on temporary land is covered by clauses in the first iteration Environmental Management Plan - Appendix A: Register of Environmental Actions and Commitments [APP-185]:

LV4 states that 'Existing vegetation within the Order Limits including temporary works areas would be retained as far as reasonably practicable...'

LV7 states 'Where it would be necessary to remove vegetation within temporary works areas, such as construction compounds, utility routes, haul roads and regrading areas, this would be replaced on completion of construction using the same or similar species to that removed where practicable (subject to restrictions to planting over and around pipeline easements and consideration of species with regards to climate change and resilience to pests and disease, and landowner agreement). All land used temporarily would be restored and returned to an appropriate condition relevant to its previous use wherever practicable and appropriate, including the ripping, minor regrading and respreading of topsoil. Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed with landowner agreement.'

**REP2-100-007**

### **Sub-Question**

7. CONSULTATION 7.1. EEL notes the Nationals Highways' response to its relevant representation in respect of consultation [REP1-002]. EEL re-states its position that it has only received one piece of correspondence from National Highways relating to consultation and did not receive any of the earlier correspondence stated in National Highways response. 8. CONCLUSION 8.1. Royal London continues to object to various aspects of the Proposed Development. It is very concerned about how the proposals impact on its land and the interests of its tenants. 8.2. Royal London and its advisers remain willing and able to engage with

National Highways in respect of the Proposed Development. Royal London would like to see a swift resolution to these issues, but that will depend on the level and nature of the engagement of National Highways.

### Applicant's Response

Meetings were held with the Interested Party on 7 September 2022 and 21 February 2023 to discuss their concerns and agree next steps to resolve the issues. A site meeting is being arranged to look at and agree any security measures required.

The Applicant is progressing agreement with the Interested Party to address and mitigate outstanding concerns.

**Roger Wacey**

**REP2-101-001**

### Sub-Question

[Redacted] directly off the southbound A12 at a very remote location [Redacted] is from the A12 but will be approximately from the proposed new road Over the past three years we have been battling with Highways to gain some understanding for my son and his family who reside several of whom which is a protected characteristic, and one All of whom should have had some consideration and a greater understanding from Highways throughout this process, unfortunately this has not been forthcoming It has been impossible to receive any meaningful response or understanding for the distressing position we have been put in by National Highways. We have raised many issues and complaints with Highways staff regarding the actions of Costain's over past years with no meaningful responses although an inadequate response was received just prior to this meeting. Details of our issues with Costains and highways can be found on the Inspectorate's website, but we have more detailed issues which we will submit in time for future deadlines Whilst we accept that the A12 has to be upgraded this should not be to the detriment of local residents, in the way that my family, and, as we have learnt today others, have been treated The close proximity of the accepted route to our property means that the recording studio and wedding photography businesses run from the home office within the curtilage of WWF have already suffered detrimentally due to disturbance during surveys, boreholes, and digging of test pits a loss for my whole family. The family know that they have got to move to survive from what has been a devastating experience so far and will only get worse when construction begins as, our location is listed as a 24 hour working location by Costains. In the property noise overview

received from National Highways on 9th September 2022 it stated that at WWF there is an acceptance that there would be significant adverse effects on health and quality of life. The document also admitted that the night time SOAEL ( significant observed adverse effect level) exceeds the noise levels in accordance with National Policy. Within the construction noise assessment it also states that concrete piling will be undertaken within the proximity of our property both day and night. The admitted excess of decibel levels and the increase in vibration will have a devastating effect on the recording studio and wedding photography business

### **Applicant's Response**

The Applicant has responded to the Interested Party's

- comments at Open Floor Hearing 1 in [REP1-009] Ref 64 to 67,
- Additional Submission [AS-037] in the Applicant's Response to Relevant Representations [REP1-002]
- to the Relevant Representation RR-061 in the Applicant's Response to Relevant Representations [REP1-002]
- to Comments on the Applicants response to Relevant Representations [REP1-061 to REP1-066] in the Applicants Comments on information received at Deadline 1 [REP2-030]

The Applicant believes that together these responses answer all the points raised.

**REP2-101-002**

### **Sub-Question**

Our family have known for three years that they have got to move due to the new road's close proximity, this has blighted the property putting them in an impossible unsettling and disturbing position, which is which we can do nothing about Highways recognise the dire situation the family have been put in. In September 2022 it was recommended by Highways, as they would not accept our blight status that we put in for discretionary purchase, however on 31st October 2022 we were advised that we could put

in a blight application but that it might not be accepted. We are currently awaiting a decision on this but are seriously concerned that Highways state there has to be two separate applications, one for the house and one for the studio (home office) despite them being registered as one property at the land registry. We have repeatedly requested the rationale for this as it does not make sense unless Highways are planning to take only one part of our property but our requests have been ignored. This is a further example of how Highways are treating us. And as discovered today many others have been.

### **Applicant's Response**

The Applicant requested two separate blight applications from the Interested Party as the residential and commercial buildings are not marked as a composite hereditament on the ratings lists and therefore a blight notice must be made in respect of each property. Both of the blight applications have been reviewed and accepted by the Applicant. Compensation will be processed once the acceptance form is signed and returned by the Interested Party.

### **BNP Paribas Real Estate on behalf of Royal Mail Group**

**REP2-104-001**

### **Sub-Question**

#### Background

Royal Mail has previously submitted representations on this scheme during the following stages:

Section 42 consultation in August 2021  Supplementary consultation in December 2021  Relevant representations November 2022

Royal Mail is an Interested Party to the Examination (IP Registration Number: 20033079).

Under section 35 of the Postal Services Act 2011, Royal Mail has been designated by Ofcom as a provider of the Universal Postal Service. Royal Mail is the only such provider in the United Kingdom. The Act provides that Ofcom's primary regulatory duty is to



secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

Royal Mail is under some of the highest specification performance obligations for quality of service in Europe. Its performance of the Universal Service Provider obligations is in the public interest and this should not be affected detrimentally by any statutorily authorised project.

The Government imposes financial penalties on Royal Mail if its Universal Service Obligation service delivery targets are not met. These penalties relate to time targets for:

collections,  clearance through plant, and  delivery. Royal Mail's postal sorting and delivery operations rely heavily on road communications. Royal Mail's ability to provide efficient mail collection, sorting and delivery to the public is sensitive to changes in the capacity of the highway network.

Royal Mail is a major road user nationally. Disruption to the highway network and traffic delays can have direct consequences on Royal Mail's operations, its ability to meet the Universal Service Obligation and comply with the regulatory regime for postal services thereby presenting a significant risk to Royal Mail's business.

Any periods of road disruption / closure, night or day, on or to the roads immediately connected to these developments or the surrounding highway network will have the potential to impact operations and may consequently disrupt Royal Mail's ability to meet its Universal Obligation service delivery targets.

The A12 is of very high strategic importance to Royal Mail's operations. In exercising its statutory duties, Royal Mail vehicles use on a daily basis the A12, the A120 and all of the other local roads that may potentially be affected by National Highways' proposed widening works. Royal Mail's operational planners have indicated that any delays on this stretch of the A12 during the construction of this widening scheme will mainly affect services to the CO, CM, IP Postcode areas, and the Royal Mail Delivery Offices within them.

## **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-104-002**

### **Sub-Question**

Royal Mail has 15 operational facilities within 12 miles of the proposed DCO boundary. Estimated distances from the scheme are provided below:

- Marks Tey Vehicle Parking, CO6 1EB - c. 0 miles
- Chelmsford Mail Centre / Road Transport Workshop, CM2 5AA - c. 0.2 miles
- North Essex Parcel Force Depot, CM2 5AE - c. 0.2 miles
- Witham Delivery Office, CM8 2AH - c. 0.8 miles
- Kelvedon Vehicle Parking, CO5 9AE - c. 0.8 miles
- Chelmsford Delivery Office, CM2 6ZZ - c. 1.5 miles
- Tiptree Delivery Office, CO5 0LD - c. 1.8 miles
- Colchester Vehicle Parking, CO1 2TJ - c.3.3 miles
- Maldon Delivery Office, CM9 4LD - c. 5.3 miles
- Colchester Delivery Office, CO1 2GB - c. 6.5 miles
- Wivenhoe Sub Unit Delivery Office, CO7 9AB - c. 6.5 miles
- Braintree Delivery Office, CM7 3SR - c. 7 miles
- South Woodham Ferrers Delivery Office, CM3 5YA - c. 10 miles
- West Mersea Sub Unit Delivery Office, CO5 8QQ - 11.1 miles
- Halstead Vehicle Parking, CO9 2LS - 11.4 miles

### **Applicant's Response**

The Applicant notes the information provided by the Interested Party.

**REP2-104-003**

### **Sub-Question**

Update on Royal Mail's position as at February 2023

Royal Mail supports National Highways' A12 Chelmsford to A120 Widening Scheme which, once completed, will enhance journey

times and road capacity in the area. However, the construction phase of the scheme has potential to cause significant disruption to Royal Mail's operations on the A12 and A120 which are both important distribution routes already prone heavy traffic, congestion and delays.

Royal Mail has reviewed National Highways' response to its Relevant Representation as below:

Royal Mail wishes to make the following comments to the Examining Authority on these applicant responses:

Sub-Part Reference RR-073-001

National Highways' response is fully agreed.

National Highways has shown commitment to continuing engagement with Royal Mail in relation to how impact of the scheme on Royal Mail's operations can be mitigated. Royal Mail has welcomed the recent contact from and consultations with National Highways' Project team in response to the previously submitted representations as above. Most recently, a helpful meeting took place on 10 February 2023 between National Highways' Project Team and representatives of Royal Mail. Good progress has been made with addressing most of Royal Mail's stated requests which were set out in its representations as listed above.

### **Applicant's Response**

The Applicant notes the Interested Party's comments and looks forward to continuing to engage with the Interested Party.

**REP2-104-004**

### **Sub-Question**

Sub-Part Reference RR-073-002

National Highways' response is not fully agreed.

4

OCTMP paragraph 3.1.3, section 1.3 and section 3.2 and table 3.1 are all welcomed by Royal Mail, but they do not address the first of Royal Mail's three requests, namely that :

"the DCO includes specific requirements that during the construction phase Royal Mail is consulted by National Highways or its contractors at least one month in advance on any proposed road closures / diversions / alternative access arrangements, hours of working, and the content of the final CTMP".

A good example of potential wording for National Highways to consider for inclusion in A12 Chelmsford to A120 widening scheme's OCTMP / CTMP is provided in the CTMP for Highways England's A1 Birtley to Coal House Improvement Scheme:

"2.8.1 Advanced notifications of programmed diversions and closures will be issued to major road users in the vicinity of the scheme including Royal Mail. This will include providing major road users with not less than 7 working days' notice of any road closures, diversions or alternative access arrangements that may affect travel on those routes and (if available) in all cases the agreed hours of working. This will form part of a wider communications plan associated with the scheme. The method of communication will be agreed as part of the final Construction Traffic Management Plan. Highways England will consult with Royal Mail on the content of the final Construction Traffic Management Plan."

This wording was agreed between National Highways and Royal Mail in June 2020 during the Examination into that DCO application. In May 2021 similar wording was agreed between Highways England and Royal Mail for inclusion in the Construction Traffic Management Plan for A1 in Northumberland Morpeth to Ellingham.

### **Applicant's Response**

The Applicant notes the points raised by the Interested Party. As detailed in Table 3.1 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] proposed traffic management forums would be set up by the Applicant and the Interested Party would be encouraged to attend the Local Business and Strategic Road User Forum, and the Hatfield Peverel Access Forum.

The Applicant considers that the Interested Party's attendance at the Strategic Road User Forum would enable the Interested Party to engage and provide comments on relevant planned restrictions and closures during construction. The Strategic Road User Forum would be set up prior to the construction phase of the scheme and would meet on a monthly basis.

The agenda of the forum would be; communication, input into and review of planned restrictions and closures with strategic users of the strategic road network and business users of the local road network. The forum would also give advanced notice of any planned road closures or traffic management and in most cases, notice would exceed the 7 working days' notice requested by the Interested Party.

The Applicant does however agree to add a statement to the OCTMP similar to the following from other National Highways schemes "Advanced notifications of programmed diversions and closures will be issued to major road users in the vicinity of the proposed scheme including Royal Mail. This will include providing major road users with not less than 7 working days' notice of any road closures, diversions or alternative access arrangements that may affect travel on those routes and (if available) in all cases the agreed hours of working. This will form part of a wider communications plan associated with the proposed scheme. The method of communication will be agreed as part of the final Construction Traffic Management Plan. National Highways will consult with Royal Mail on the content of the final Construction Traffic Management Plan." This will be added to the next revision of the OCTMP

**REP2-104-005**

### **Sub-Question**

Sub-Part Reference RR-073-003

National Highways' response is not fully agreed.

Good progress has been made by National Highways in addressing the three requests set out in Royal Mail's Relevant Representation. However, in view of Royal Mail's position on Sub-Part Reference RR-073-002 above it wishes to remain an Interested Party and reserve its right to object to the DCO application if necessary in order to protect its position and ensure that OCTMP paragraph 3.1.3, section 1.3 and section 3.2 and table 3.1 remain unchanged during the Examination and take effect during the construction phase.

Finally, as flagged in the 10 February 2023 meeting with National Highways' Project Team, Royal Mail additionally requests that a new provision is added to the OCTMP obliging National Highways to provide Royal Mail with the named contacts at National

Highways or its contractor/s for all consultations and notifications during the construction period at least two months before any works commence.

Any queries or information requests arising from this update statement by Royal Mail should be directed to:

### **Applicant's Response**

The Applicant acknowledges the comments at paragraph 3.1.3, sections 1.3 and 3.2 and Table 3.1.

The Applicant has detailed in Table 3.1 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] proposed traffic management forums and would encourage the Interested Party to attend the Local Business and Strategic Road User Forum, and the Hatfield Peverel Access Forum. The proposed traffic management forums would be set up ahead of construction, first points of contacts would be set up between the Applicant and the Interested Party within these forums. In some cases, lines of communication would be established far sooner than the two months specified by the Interested Party.

### **Shoosmiths on behalf of Parker Strategic Land**

**REP2-111-001**

#### **Sub-Question**

#### **1 INTRODUCTION**

1.1 This representation is made on behalf of Henry Siggers ("Mr Siggers") and Parker Strategic Land Limited ("Parker"). It relates to the proposed A12 Chelmsford to A120 widening scheme (the "Scheme") being promoted by National Highways ("NH") by way of an application for a Development Consent Order (the "Order").

1.2 Mr Siggers is the owner of Plots 11/8d and 12/4a as shown on the Land Plans accompanying the draft DCO (the "Site"). Parker has a promotion agreement with Mr Siggers and is currently promoting the Site for employment led development.

1.3 Parker is also the promoter of land to the northwest of the Scheme for 600 houses. That development is currently at application stage under reference 21/03579/OUT.

1.4 Table A.1 to the Statement of Reasons notes that the Site is to be permanently acquired for use as a borrow pit, with some other works (namely balancing ponds, an access road and ecology mitigation) on the fringes.

1.5 Mr Siggers and Parker object to the permanent acquisition of the Site as part of the Scheme. For the reasons set out below, Mr Siggers and Parker do not consider there to be a compelling case in the public interest for the acquisition.

**Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-111-002**

**Sub-Question**

**2 OBJECTIONS**

2.1 In summary, Mr Siggers and Parker object to the proposed Order on the following grounds:

2.1.1 The absence of a compelling case in the public interest and failure to comply with the European Convention on Human Rights ("ECHR");

2.1.2 The Site being acquired is not needed because there is an alternative means of bringing about the objective of the Order;

2.1.3 Lack of consideration of alternatives; and

2.1.4 Inadequate attempts to acquire the Site by agreement.

**Applicant's Response**

The Applicant has set out its compelling case in the Statement of Reasons and its obligations under the European Convention on Human Rights are addressed in Section 6.2 of the Statement of Reasons [APP-042].

The Applicant's Borrow Pits Report [APP-278] Section 2.4 explains the construction need for borrow pits and the alternative sources of material that were considered. Section 5 Optioneering describes the search for alternative locations that was carried out. The Applicant gave full consideration to the need for and location of borrow pits. The proposed borrow pits have been selected following an assessment of 18 potential locations along the proposed scheme footprint against relevant criteria, including technical, construction, environmental, planning and existing land use considerations, as described in section 5 of the Borrow Pits Report [APP-278] The main reasons for selecting the proposed borrow pits are set out at Section 6.

Please refer to RR-027-002 and RR-027-003 within the Applicant's Response to Relevant Representations - Rev 2 [REP1-002] that was submitted at Deadline 1 for further information.

The Applicant is engaging with the landowner and will continue to do so.

**REP2-111-003**

### **Sub-Question**

#### **3 ABSENCE OF A COMPELLING CASE IN THE PUBLIC INTEREST AND FAILURE TO COMPLY WITH THE ECHR**

3.1 Section 122 of the Planning Act 2008 (the "Act") makes it clear that an order may only authorise compulsory acquisition if the Secretary of State is satisfied there is a compelling case in the public interest. The purposes for which the development consent order is made must also justify interference with the human rights of those with an interest in the land affected.

3.2 NH's Statement of Reasons does not disclose a compelling case in the public interest for the exercise of compulsory purchase powers in respect of the Site. In fact, no detailed justification for the inclusion of the borrow pits is set out in either the Statement of Reasons or 'Case for the Scheme' document.

3.3 The Statement of Reasons simply states that "borrow pits will be used to extract materials from the order land for the construction of the proposed scheme". No explanation is given for why the relevant materials must be taken from the Site and cannot be sourced from other locations.

3.4 The only explanation is set out in the Borrow Pits Report ("BPR"). However, the case for the inclusion of the borrow pit on the



Site is inadequately justified within it. In particular:

3.4.1 The BPR states that land must be acquired for the borrow pits because “the availability of sufficient quantities of economically viable [in-fill] materials of suitable specification cannot be guaranteed from alternative sources” (BPR, paragraph 2.4.11). It is also suggested that using on-site borrow pits would reduce the environmental impacts of having to import fill material from off-site. However, there is no analysis of the availability of material from off-site sources or the economic/environmental viability of using that material versus material from borrow pits. The BPR simply asserts, with no evidence, that it ‘would be unlikely to be available from local sources’. There is no evidence of the availability of local sources or what is even defined as ‘local sources’. Indeed, there is no catchment area that has been considered for this or any analysis that supports this conclusion.

3.4.2 The justification for materials to be sourced from the Site is not evidenced in any event. It is simply stated that this would result in reduced HGV movements, reduced fuel use and potential road traffic incidents. Thus, the sole justification for not going further afield to source materials is that it would involve further travel. That provides no proper justification for seizing land locally and having such a significant interference with Mr Sigger’s interest in the Site. Such an approach would be irrational, in the legal sense of the word.

3.4.3 The assessment as to which borrow pits were preferred within Table 5.1 of the BPR is lacking in detail.

3.4.4 NH have already budgeted for a large amount of inert off-site fill material to be imported during construction. Paragraph 1.1.1 of the BPR states that there is a deficit of overall earthworks material in the order of 600,000m<sup>3</sup>, planned to be met by using the borrow pits. However, paragraph 2.4.9 of the BPR notes that an “additional 950,000m<sup>3</sup> of fill material may be required to backfill Colemans Quarry in the event that the quarry operators cannot perform this task in advance of construction works. In this event, the intention would be to import 650,000m<sup>3</sup> of inert material from offsite”. Therefore, there is already a contingency for a huge amount of inert material being imported from off-site that would more than cover the supposed 600,000m<sup>3</sup> deficit to be met by the borrow pits if Colemans Quarry does not need backfilling. This completely undermines NH’s argument that importing large volumes of off-site fill material is neither possible nor economically viable.

3.4.5 NH has provided a statement which asserts that the Scheme will be adequately funded through the Road Investment Strategy (“RIS”). This allows for a significant range in capital expenditure and for increases in cost as the project progresses. There is no suggestion that the Scheme’s funding is in any way dependent on the use of the Site as a borrow pit. This further undermines the

argument that sourcing fill-material from off-site, or from other borrow pits within the Order Land, is not economically viable.

3.4.6 Even if Mr Siggers and Parker were to accept that some type of borrow pit was required (which they do not), NH recognise that “there is limited information available at this stage regarding the precise material requirements and waste quantities” associated with constructing the Scheme (ES Chapter 11 Material Assets and Waste, paragraph 11.5.9). Therefore, NH cannot properly assess the likely fill deficit that needs to be met and, consequently, cannot properly calculate how much land is needed for borrow pits.

3.4.7 The restored borrow pits are not required for ecological mitigation. ES Chapter 9, Biodiversity, paragraph 9.13.1 excludes any habitat creation from the restored borrow pits when calculating the overall biodiversity net gain from ecological mitigation within the Scheme. ES Chapter 9 then goes on to conclude that the Scheme complies with the National Policy Statement for National Networks policies for biodiversity on the basis of, inter alia, those calculations.

3.4.8 Finally, there is no planning policy support for using the Site as a borrow pit. It is not allocated for mineral extraction within the Essex Minerals Local Plan (2014) and there is no overriding justification and/or overriding benefit for the proposed extraction in accordance with Policy S6.

3.5 NH’s application documents indicate that the inclusion of the borrow pit on the Site is simply a speculative, cost saving exercise. This does not amount to a compelling case for the permanent acquisition and sterilisation of the Site, which is good quality farmland with development potential.

3.6 The justification for depriving Mr Siggers of his property is also inadequate in the context of NH’s obligations under the ECHR. For the above reasons, the acquisition of the Site is neither proportionate nor in the public interest.

### **Applicant’s Response**

3.1 The Applicant has had full regard to requirements of Section 122 of the 2008 Act. There is a compelling case in the public interest for the proposed compulsory acquisition of land for the borrow pits on the Interested Party’s land. See in particular Responses to Relevant Representations, [to Parker] [RR-027] the Applicant’s Borrow Pits Report, regarding justifications for a borrow pits strategy [APP-278] Section 2 and the site search for suitable locations [APP-278] Section 5, together with the supplementary borrow pits report [REP1-011].

3.2 The Applicant's borrow pits report [APP-278] and supplementary borrow pits report [REP1-011] explain why borrow pits are required and the compelling justifications in terms of environmental benefits, savings in construction traffic movements and cost that are secured by reliance on borrow pits.

The borrow pits are required to meet the earthworks volume deficit for the proposed scheme by providing:

- A source of suitable construction material close to the areas of deficit, making haul distance more efficient
- Reducing HGV movements associated with the import of acceptable fill material from areas remote from the proposed scheme to meet the shortfall
- Less construction haul traffic required on the public road network, reducing fuel use, associated vehicle emissions and potential road traffic incidents
- Providing a local area for material considered unsuitable for engineering purposes to be deposited, reducing the requirement for export out of the proposed scheme Order Limits

Borrow Pit I is suitable for the purposes outlined above owing to:

- its location in comparison to the fill deficit area
- the quality and quantity of material available
- environmental impacts or issues can be appropriately mitigated or overcome when compared to the other five location options considered during the assessment process.

3.3 As explained in the borrow pits report [APP-278] and supplementary borrow pits report [REP1-011], alternative locations for borrow pits were considered by the Applicant prior to submission of the application. There is no better location for the extraction of materials from borrow pits that is identified, and the Applicant is satisfied that it has considered reasonable alternatives sufficiently to demonstrate that there is a compelling case in the public interest for the use of borrow pits at this location. The Applicant does not have to demonstrate that the material 'cannot be sourced from other locations'. The Applicant needs to show that there are no reasonable alternatives, which in this context would mean that there are not better locations or methods for the securing of the

required materials. It does not mean that the Applicant must demonstrate this borrow pit location is the only possible borrow pit location that could be used for the purposes of the proposed scheme.

3.4 The use of borrow pits for the proposed scheme is outlined in the Borrow Pits Report [APP-278], which states that the design of the proposed scheme, with its cuttings and embankments and their associated side slopes, has an overall shortage of earthworks material necessary for construction. Section 2.4 – ‘Other potential sources of fill material’ summarises the reasons why borrow pits are the only feasible solution to ensure that construction risks are appropriately managed to enable delivery of the proposed scheme in accordance with programme and budget constraints.

3.4.1 This summary is also explained in further detail in the Borrow Pits Supplementary Technical Note [REP1-011] which sets out a catchment area for sources of earthworks material for the proposed scheme and analyses examples of what material is available from quarries local to the proposed scheme, other local construction projects and borrow pits. The technical note analyses these sources, using relevant examples, and concludes that, based on the necessity of securing the delivery of the proposed scheme programme in regard to material import rates, costs associated with material extraction / haulage and placement for both suitable and unsuitable materials, the mitigation of impacts on the environment and local and strategic road networks, winning fill material from borrow pits within the proposed scheme Order Limits is the most suitable option available.

3.4.2 The Borrow Pits Supplementary Technical Note [REP1-011] Section 3 explains how a considerable amount of volume modelling and mass haul assessment has been carried out by earthworks specialists, in accordance with industry standard methodologies to determine the earthworks general fill deficit and the locations where this exists along the proposed scheme. In this case the deficit area is the proposed junction 22 earthworks embankments. Considering the fact that borrow pits are the most suitable source of fill material for the proposed scheme an assessment (described in the Borrow Pits Report [APP-278] section 5) was carried out to determine the optimal location for a borrow pit to meet the deficit. Borrow Pit I was selected for this deficit area for the reasons outlined in the Borrow Pits Report [APP-278] Section 6.3. The detail behind the assessment is provided in the Borrow Pits Supplementary Technical Note [REP1-011] section 5.

3.4.3 The Borrow Pits Supplementary Technical Note [REP1-011] section 5 further details the information given in Table 5.1 of the Borrow Pits Report [APP-278].

3.4.4 The contingency import of 650,000m<sup>3</sup> of general fill material for Coleman’s Farm Quarry is provided for in the event it is not

possible for the Colemans Farm Quarry operator to source material for backfill in a timescale that allows the proposed scheme to be constructed in accordance with the pressing timescales for construction. The environmental and traffic impacts of importing this volume of material by road from numerous sources would be outweighed by using local scheme borrow pits.

If the borrow pits were not available and Coleman's Farm Quarry was not able to be backfilled by the operator, over 1.2Mm<sup>3</sup> of material would need to be imported to the proposed scheme, which would have a significant detrimental effect on carbon generation and traffic levels on both the strategic and local road network. In either event, should Colemans Farm Quarry need backfilling or not, the Applicant still maintains that winning the material from the borrow pits is the most economically and environmentally viable option as, described in Section 2.4 of the Borrow Pit Report [APP-278] and confirms that Borrow Pit I has been identified to supply materials to form the embankments of J22 due to its proximity and material suitability.

3.4.5 The proposed scheme will be adequately funded by the Road Investment Strategy (RIS); however, this does not mean any particular scheme within the RIS is open to a 'significant range in capital expenditure and for increases in cost as the project progresses'. RIS schemes are funded by the government and are budgeted for accordingly in line with cost-benefit analysis for each scheme. The Applicant maintains that winning the material from the borrow pits is the most economically and environmentally viable option as, described in Section 2.4 of the Borrow Pit Report [APP-278] and further explained in the Borrow Pits Supplementary Technical Note [REP1-011], which demonstrates that the alternative sources considered are unreliable and uneconomical.

3.4.6 The fill deficit has been calculated by a significant amount of calculation from the three-dimensional modelling work, along with a series of separate calculations that are combined and represented across separate geographical areas along the route of the proposed scheme. The calculations have been undertaken by experts with significant experience in volume modelling with consideration given to appropriate assumptions to ensure the calculations are as accurate as possible at this stage of design refinement. The volume tolerance of the modelling work is within that appropriate to the stage of design. There can be confidence in the calculations and the identification of the broad areas of deficit requiring borrow pits for the reasons given above. In this case the deficit identified is in the order of 400,000m<sup>3</sup> of earthworks material to be won from Borrow Pit I as previously stated.

3.4.7 As the Interested Party notes, the restored borrow pits are not required for ecological mitigation and have therefore been excluded from the calculations with respect to Biodiversity Net Gain. The only exception to this is in the case of borrow pit F (which is not relevant to this particular borrow pit site), for which the restoration plan would include the creation of an area of broadleaved

woodland habitat (7.4ha) to offset air quality impacts on Perry's Wood ancient woodland (as described in paragraph 9.10.32 of Chapter 9: Biodiversity [APP-076]). Evidence of the compliance of the biodiversity assessment for the proposed scheme in accordance with the National Policy Statement for National Networks is provided in Table 9.4 of Chapter 9 Biodiversity [APP-076] and includes the Applicant's approach of maximising biodiversity delivery (in line with NPSNN paragraph 5.25).

3.4.8 Appendix F: Local Planning Policy Accordance Tables, of the Case for the Scheme [APP-252] sets out a schedule of local policies contained in development plans which are considered to have the potential to be both important and relevant to the proposed scheme. Included within the policy assessment are the following local policies relating to borrow pits:

- Policies S4, S6, S8 of the Essex Minerals Local Plan (Essex County Council, 2014).
- All borrow pits are located in Mineral Safeguarding Areas for Sand and Gravel in accordance with Essex Minerals Policies map.

The proposed scheme includes the need for four borrow pits that are to address the deficit of material required for the proposed scheme (i.e. there is a cut fill imbalance which means the scheme requires a greater level of fill material than the amount of suitable cut material that would be available from the proposed scheme footprint).

In relation to the policies highlighted above from the Essex Minerals Local Plan, the Case for the Scheme [APP-249] sets out that the four borrow pits proposed within Essex would meet the tests set out within the policy for the reasons below:

- The borrow pits are required to supply material for the proposed scheme, which is a specific major construction project. This is because the proposed scheme requires a greater level of fill material than the amount of suitable cut material that would be available from the proposed scheme footprint.
- The borrow pits are well related geographically to the proposed scheme, being within the Order Limits, and have been located to serve specific sections of the proposed scheme that would be in particular need for material.
- The borrow pits would serve the proposed scheme only and would not be used to supply minerals to the wider market. The borrow pits would not be worked after completion of construction.
- By helping to supply the balance of material needed for the construction of the proposed scheme, the borrow pits

would minimise the need for material to be brought from offsite locations, thereby removing mineral traffic movements from the public highway and reducing traffic movements that would otherwise need to pass through local communities.

- Following extraction of the required material, the borrow pits would be landscaped through partial backfilling with material that is unsuitable for engineering purposes. The material used for restoring the borrow pits would be generated from the works across the proposed scheme. It is on this basis that the likely effects arising from the borrow pits have been assessed.

Further information is contained in the Borrow Pits Report [APP-278] and Chapter 2: The proposed scheme, of the Environmental Statement [APP-069].

3.5 The information presented is considered to represent an appropriate level of detail, in line with the available design information for planning purposes. The economics of the earthwork's strategy is an important element in determining the overall proposed scheme cost. Optimisation of earthworks movements ensures an efficient outturn cost, both economically and environmentally, to a Nationally Significant Infrastructure Project.

As explained in Section 2.9 of the Borrow Pit Report [APP-278], the Applicant remains committed to seeking to acquire all land and rights required by agreement where practicable. Section 6.3 of the Borrow Pit Report [APP-278] summarises the reasons the site has been selected when previously compared to several other options.

3.6 The Applicant's case for the proposed acquisition is compelling for the reasons set out in the responses above and the response to the relevant representation RR-027. The Applicant has complied with its obligations under the European Convention on Human Rights which are addressed in Paragraph 6.2 of the Statement of Reasons [APP-042].

**REP2-111-004**

**Sub-Question**

**4 SITE NOT NEEDED DUE TO ALTERNATIVE MEANS OF BRINGING ABOUT THE OBJECTIVE OF THE ORDER**

4.1 The Site is not needed as there are alternative sources of inert fill material to meet any deficit. In particular:

4.1.1 The Waste Local Plan for Essex (2017) notes that there is a significant amount of inert disposal in the region (1.95mtpa) and identifies a shortfall in landfill capacity. Rather than obtain fill material from a new borrow pit on the Site, it would be more appropriate to divert existing inert material to the Scheme. Indeed, NH already recognises the availability of other sources of material and is prepared to find an additional 650,000m<sup>3</sup> from off-site sources if it is needed to backfill Colemans Quarry.

4.1.2 NH's evidence also notes that "constructing the proposed scheme would result in large quantities of surplus materials and waste, leading to potential impacts on the available landfill void capacity" (paragraph 11.1.4 of ES Chapter 11 Material Assets and Waste). This indicates that on-site surplus materials and waste could also be used in greater quantities as inert fill material, rather than taking it from borrow pits.

4.2 There are also several other borrow pits identified within the Order Land that could be utilised more effectively to remove the need to acquire the Site. For example, in the BPR, borrow pits 'E' and 'F' are only stated to provide 100,000m<sup>3</sup> of fill material with a worst case borrow pit depth of approximately 4m. However, borrow pit 'I' on the Site is anticipated to provide 400,000m<sup>3</sup> of fill material with a worst case borrow pit depth of 17m. There is no apparent

reason why borrow pits 'E' and 'F' could not be excavated to a greater depth and provide much more fill material. This would remove the need to acquire the Site for borrow pit 'I'.

4.3 Furthermore, the BPR notes that, in the event that Colemans Farm Quarry needs to be backfilled, an additional 300,000m<sup>3</sup> of fill material could be taken from borrow pit 'J'. This would cover most of the fill material which would be expected to come from borrow pit 'I' and would also remove the need to acquire the Site.

### **Applicant's Response**

4.1.1 The Applicant's Borrow Pits Report [APP-278] explains why borrow pits are required, as an integral part of the proposed scheme, to source earthworks material necessary for construction. This describes the optioneering process undertaken to identify, evaluate

and select the four proposed borrow pit locations included in the proposed scheme; and provides details of the selected borrow pit



locations and a summary of reasons for their selection. Section 6.3 of the Borrow Pit Report summarises the reasons why this site has been selected when compared to several other options.

This report also confirms that other potential sources of earthworks material may be available at the time of constructing the proposed scheme, including but not limited to, inert construction, demolition and excavation (CD&E) arisings from other local development projects. However, the quantities, quality and locations where material would be available to the Applicant during the proposed scheme were unknown and could not be guaranteed. This is explained in further detail in the Borrow Pits Supplementary Technical Note – Rev 1 [REP1-011].

Other potential sources of earthworks material would be subject to many factors affecting their availability and use, including planning, permitting, the construction market at the time, the type of schemes that would be in construction and have surplus materials of appropriate specification, as well as their distance from the proposed scheme and the associated transport costs, traffic and carbon impacts arising from their use. There is also likely to be competing demand for this material for quarry restoration, and for use on other development projects in the area.

If, at the time of construction, local sites of suitable earthworks material are identified, these would be assessed to see whether the material meets the specification and is geotechnically and geochemically suitable for use, is economically and environmentally viable, and could be delivered without materially altering the conclusions of the Environmental Statement for the proposed scheme. If such materials are locally available at a suitable rate of supply, their use could be considered and potentially reduce the overall need for sourcing material from borrow pits.

Given the uncertainty of these other sources of earthwork's material and that they cannot be guaranteed at this stage, the Applicant believes that it is necessary to provide for each of the four proposed borrow pits within the Order Limits to cumulatively reduce any associated programme risks and ensure the deliverability of the proposed scheme.

Contingency has been made by the Applicant to source an additional 650,000m<sup>3</sup> of imported earthworks materials to backfill quarry voids within the Order Limits in Colemans Farm Quarry if left unfilled after the extraction operations, to provide a sensible, necessary and realistic source of material in the event that the quarry operators have not completed these works ahead of construction in this area. If the borrow pits were removed from the proposed scheme and the contingency occurred, this would mean over 1.2Mm<sup>3</sup> of material would need to be imported to the proposed scheme, which would have a significant detrimental

effect on carbon generation and traffic levels on both the strategic and local road network. In the event that the Colemans Farm Quarry voids do not need backfilling, the Applicant maintains that sourcing the earthworks material from borrow pits is the most economically and environmentally viable option. In addition to the borrow pits providing a source of suitable construction material close to the areas of earthworks fill material deficit, they also provide a local area for material considered unsuitable for engineering purposes to be deposited, thereby reducing the requirement for export out with the proposed scheme Order Limits.

4.1.2 The quoted statement in paragraph 11.1.4 of Environmental Statement Chapter 11: Material Assets and Waste [APP-078] includes all aspects of surplus materials and waste generation from constructing the proposed scheme prior to the application of those mitigation measures detailed in Section 11.10 of Chapter 11 [APP-078]. Some of these materials cannot be used as general earthworks fill or engineering fill, such as wood and metals.

Waste arisings have been estimated through a number of methods, including reference to estimated waste quantities provided by the Principal Contractor, and through estimates of wastage associated with imported construction materials. Chapter 11 [APP-078] is therefore considered to provide a worst-case estimate of waste generation based on a number of referenced assumptions, and the actual quantum of waste arisings is expected to be substantially lower.

Earthworks material considered unsuitable for re-use as general fill or engineering fill has been estimated based on a percentage split relevant to this stage of design development and available information. Some of the excavation materials that are geotechnically unsuitable for use as engineering fill are to be reused in onsite landscape areas and borrow pit restoration works as described in paragraph 11.11.29 of Chapter 11 [APP-078].

Continuing assessments are being made on the quantities of re-usable construction, demolition and excavation waste generated by the proposed scheme and will be included in the quantities of material required for temporary and permanent works where applicable.

Further information can be found in the first iteration Environmental Management Plan Appendix L: Site Waste Management Plan [APP-196]. The Borrow Pits Supplementary Technical Note – Rev 1 [REP1-011] section 4.4 also explains this further, providing examples of current sources assessed.

4.2 The criterion used to assess the borrow pit areas are not equally weighted and require professional judgement to be applied in

order to determine the most appropriate location. Where impacts or issues were identified, consideration was also given as to whether these could be appropriately mitigated or overcome, and this was factored into the evaluation and overall decision making.

The Borrow Pits Supplementary Technical Note – Rev 1 [REP1-011] Table 5.2 aligns the 19 potential borrow pit locations with the target fill deficit areas along the proposed scheme. Borrow Pits E and F were not considered to provide fill to the junction 22 deficit area because they are too far from the proposed junction with no available off-road haulage option. Any volume of material from these borrow pits to the proposed junction 22 fill deficit area would have to travel via local roads and the A12 strategic road network, significantly increasing the traffic in these areas during peak periods.

Further to this, transporting material by road significantly increases the number of heavy goods vehicles required for the volume as well as the carbon generation for the activity. This is because the efficiency of the operation is severely compromised meaning the material will need to be handled multiple times before depositing it in its final location. This drives up the cost and time taken to complete the activity, potentially making the proposed scheme programme unachievable. Therefore, Borrow Pits E and F cannot be considered as suitable alternatives to Borrow Pit I, making the latter essential for the construction of the proposed junction 22.

4.3 The contingency import of general fill material for Coleman's Farm Quarry is provided for in the event it is not possible for the Colemans Farm Quarry operator to source material for backfill in a timescale that allows the proposed scheme to be constructed in accordance with the pressing timescales for construction. The environmental and traffic impacts of importing this volume of material by road from numerous sources would be outweighed by using local scheme borrow pits.

If any borrow pits were to be unavailable to the Applicant and Coleman's Farm Quarry was not able to be backfilled by the operator, significant amounts of material would need to be imported to the proposed scheme, which would have a significant detrimental effect on carbon generation and traffic levels on both the strategic and local road network. In either event, should Colemans Farm Quarry need backfilling or not, the Applicant still maintains that winning the material from the borrow pits is the most economically and environmentally viable option as, described in Section 2.4 of the Borrow Pit Report [APP-278] and confirms that Borrow Pit I has been identified to supply materials to form the embankments of J22 due to its proximity and material suitability.

**REP2-111-005**

## Sub-Question

### 5 LACK OF CONSIDERATION OF ALTERNATIVES

5.1 It is a requirement of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("IP EIA Regulations") that the NH's environmental statement must (amongst other matters):

(i) describe "the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects"; and

(ii) provide "a description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment".

5.2 The assessment should consider the impact and effect of the Scheme on a number of factors, including:

5.2.1 Community and private assets, including private property;

5.2.2 Development land including potential strategic development sites;

5.2.3 The local and wider economy.

5.3 In order to undertake a robust and legally compliant Environmental Impact Assessment, NH must consider reasonable detailed alternatives in terms of the manner of delivery of the Scheme to avoid any unnecessary adverse effects on landowners, potential development sites and the wider economy. This has not been carried out properly as there has been no consideration of alternatives to the use of borrow pits as part of the Scheme.

5.4 Whilst Chapter 3 of the ES refers to alternatives, the inclusion of the borrow pit on the Site is always an 'assumption'. There is no consideration or analysis of the Scheme both with and without the borrow pit on the Site. The ES provided as part of the application is therefore flawed.

5.5 More broadly, the alternative to using the Site as a borrow pit is also an obviously material consideration in the DCO examination (as per the principles established in *Trusthouse Forte v Secretary of State for the Environment* (1987) 53 P & CR 293

at 299-300). Therefore, it would be irrational for NH to not explore the alternative in more detail and for that alternative to not be considered by the Secretary of State in this matter.

### **Applicant's Response**

The Applicant has provided an Environmental Statement in accordance the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Alternatives are considered in Chapter 3 of the Applicant's Environmental Statement [APP-070].

The Applicant believes Chapter 3: Assessment of Alternatives of the Environmental Statement [APP-070] and the Borrow Pits Report [APP-278] fully discharge the Applicant's requirements in this regard. The Applicant's Borrow Pits Report at Section 2.4 explains the construction need for borrow pits and the alternative sources of material that were considered. Section 5: Optioneering describes the search for alternative locations that was carried out. The Applicant gave full consideration to the need for and location of borrow pits. The proposed borrow pits have been selected following an assessment of 18 potential locations along the proposed scheme footprint against relevant criteria, including technical, construction, environmental, planning and existing land use considerations, as described in section 5 of the Borrow Pits Report. The main reasons for selecting the proposed borrow pits are set out at Section 6 of the report.

The Applicant has considered alternatives to the use of borrow pits and believes there are compelling timing, environmental and economic reasons for seeking powers for a borrow pits strategy as set out in the Borrow Pits Report and Supplementary Borrow Pits Report [REP1-011].

The site comprising Plots 11/8d and 12/4a as shown on the Land Plans is not allocated in the relevant development plan. It is not necessary for the Applicant's Environmental Statement to identify and assess likely significant effects of the proposed scheme and reasonable alternatives having regard to aspirations that commercial parties may have for development. The options appraisal process followed by the Applicant is set out at Section 3 Assessment of alternatives in the Environmental Scoping Report [ available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-000006-A12%20-%20Environmental%20Scoping%20Report.pdf>], which is referenced in the Scoping Opinion adopted by the Secretary of State [APP-096]. The Scoping Opinion identifies at paragraph 3.3.6 developments that should be considered in the Environmental Statement as part of the future baseline, specifically committed developments identified through local plans and planning

permissions. The Scoping Opinion addresses alternatives at paragraphs 2.3.6 and 2.3.7 and provides more detail on the assessment of alternatives in respect of individual environmental topics. In respect of Population and Health (including temporary and permanent loss of residential, commercial, community and agricultural land), the Environmental Statement is, as required by the EIA Regulations, based on the Scoping Opinion of the Secretary of State [APP-096]. Section 4.8 of the Scoping Opinion considers the scoping of the Environmental Statement in respect of Population and Health. Development aspirations of the type now proposed by Parker Strategic Land are not identified within the Scoping Opinion as considerations that are appropriate for inclusion in the Environmental Statement. Even if the Applicant had been aware of those aspirations, which it was not and had not been told of them by the landowner, they are not appropriate for inclusion in the EIA process.

In this regard it is of particular relevance that the commercial agreement between the landowner and Parker Strategic Land is dated 4 November 2022, which is substantially after the Applicant made its application for development consent.

It is therefore unreasonable to suggest the Site should have been considered as a potential development site when considering options/alternatives.

The Applicant had regard to local plan allocations in its borrow pit selection process. The Affected Party and Parker Strategic Land's development aspirations have little, if any, foundation in policy terms. Conversely there is a clear need for the proposed scheme in national policy terms and an imperative to deliver the proposed scheme within as short a time scale as possible.

For the reasons explained in the Borrow Pits Report, the pressing timescales for construction of the proposed scheme fully justify both the Applicant's borrow pits strategy and the acquisition of the Affected Party's land for the purpose of a borrow pit. In policy terms the compelling and urgent need for the proposed scheme outweigh such limited materiality as can be afforded to the aspirations put forward by Parker Strategic Land.

**REP2-111-006**

### **Sub-Question**

**6 INADEQUATE ATTEMPTS TO ACQUIRE THE SITE BY AGREEMENT**

6.1 The Department for Levelling Up, Housing & Communities' Guidance on Compulsory Purchase Process and The Crichel Down Rules (July 2019) (the "Guidance") states that acquiring authorities must demonstrate that they have taken reasonable steps to acquire all required land and rights in the Order by agreement. Compulsory purchase is intended as a last resort.

6.2 NH has provided little information about the compulsory purchase process and made minimal effort to acquire the Site by agreement. Mr Siggers has received just one letter dated 23.03.22 inviting them to complete and return a form expressing their desire to enter into negotiations.

6.3 We have also recently been approached by NH and invited to a meeting to discuss our clients' concerns regarding the Scheme. We are hoping to arrange a meeting soon. However, overall, NH's approach has been inadequate.

### **Applicant's Response**

The Applicant issued an initial letter offering the freehold owner H Siggers and Son the option to open discussions with the appointed valuer to explore the purchase of the land by agreement on 23 March 2022. It was confirmed in a meeting held 22 June 2022 by Whirledge & Nott that their client wishes to open negotiations.

The Applicant's valuer sent an opening email on 19 July 2022 inviting discussions around acquisition by agreement and proposing a meeting which was then held on 27 July 2022. A further meeting was held on 11 August 2022 to discuss acquisition by agreement and advanced works proposals.

An email from the Applicant was issued 16 January 2023 inviting a further meeting to progress acquisition by agreement, this meeting was then held 16 February 2023 which the Interested Party also attended. The Applicants valuer agreed to issue some figures for acquisition following this meeting and will shortly be providing these.

The Applicant held a meeting with the Interested Party on 24 February 2023 to discuss the overall concerns regarding the scheme and to try and find a way forward, discussions are ongoing and next steps were agreed.

**REP2-111-007**

**Sub-Question**
**7 CONCLUSION**
**7.1 In summary:**

7.1.1 There is no compelling case for the acquisition and sterilisation of the Site. 7.1.2 There are reasonable alternatives to the use of borrow pits and NH has failed to adequately explore those alternatives. 7.1.3 The application for the Order is flawed and the approach taken by NH to date (in terms of the scheme design and engagement with interested parties) is inadequate. 7.2 Mr Siggers and Parker therefore object to the Scheme as currently proposed and reserve the right to expand on these grounds in oral representations during the examination of the draft Order.

**Applicant's Response**

For the reasons provided in its detailed responses to the relevant representations and written representations made, the Applicant does not agree with these conclusions.

**Strutt & Parker on behalf of Mr N & Mrs P Wright  
and Mr J & Mrs S Ruggles**
**REP2-117-001**
**Sub-Question**

Our clients, Mr N.J. Wright, Mrs P. Wright, Mr J. Ruggles and Mrs C. Ruggles, have been registered as an Interested Party in this DCO application (Interested Party reference number is 20033100). Our clients own title , the land known as the w and plans submitted by National Highways as part of their DCO application propose to acquire part of the title permanently. The basis for this acquisition is to lay a drainage pipe underneath the land to a new balancing pond.

**Applicant's Response**



The Applicant notes the Interested Party's comments

**REP2-117-002**

### **Sub-Question**

Our clients object to this acquisition for a variety of reasons, which have been raised multiple times throughout the consultation process. Principally the requirement for permanent acquisition of the land as opposed to gaining an access right over the land instead with our clients retaining the freehold ownership. If this land must be acquired then it is vital that our clients retain access over the land in order to still be able to access the land on the east side of the plantation. If this is not possible then we would request that National Highways also purchases the land to the east side of However, as previously stated, our clients are willing to reach an agreement for National Highways to gain an easement over the proposed purchase area rather than permanent acquisition, and would like confirmation that National Highways are willing to consider this. We have been in discussions with the VOA, instructed to act on the matter on behalf of National Highways, to confirm that an agreement for an easement can be reached with National Highways but we are still waiting on a response from them on this. We request that the VOA make a concerted effort to improve their responses to us in this regard as the matter cannot move forward until it has been confirmed whether or not an easement can be granted instead of the permanent acquisition of the land.

### **Applicant's Response**

Subject to agreement, the Applicant is willing to negotiate permanent rights over parcel 21/3a instead of permanent acquisition. If agreement cannot be reached then the Applicant will exercise the permanent acquisition powers provided in the order and grant a right of access to the landowner over plot 21/3a to ensure the plantation can continue to be managed. The Applicant's Valuer will continue discussions with the Interested Party on this matter.

**REP2-117-003**

**Sub-Question**

Alternatively, it has been noted that the proposed drainage ditch, highlighted yellow on the attached plan, could be used to divert water into the balancing pond. Please can we ask National Highways to confirm that this ditch has been considered and the relevant surveys have been carried out to ensure that it has been correctly ruled out as an option. If not, then our clients would like confirmation as to why the ditch cannot be used instead of a drainage pipe being installed underneath their land.

**Applicant's Response**

The existing drainage ditch proposed as a means of diverting water into the proposed attenuation pond is an ordinary watercourse which receives flows from the field catchment south of A12 and through the culvert underneath A12 (Culvert CL-21A as shown on Sheet 14 of 21 of Drainage and Surface Water Plans Part 2 [APP-034]). Using the existing drainage ditch as a means of diverting water into the proposed attenuation pond would result in diverting a large amount of flow associated with the ordinary watercourse into the attenuation pond, which will have a significant impact on the required storage volume for the attenuation pond and associated land take. The combined flows from the ordinary watercourse and highway drainage would also require a large amount of flow to be treated for water quality. This will require significantly larger attenuation ponds to meet the volume of water for treatment which will have further impact on the landtake. It would not be practicable to use the existing drainage ditch as a means of diverting water into the proposed attenuation pond. The Applicant can confirm that there is an adequate level of topographical survey information available which has been used to inform the drainage design. Further consideration will be given to the surface water drainage system requirements and the feasibility of proposed drainage pipe route as part of the design development process to minimise the impact on the extent of land for which Compulsory Acquisition Powers are sought.

**Strutt & Parker on behalf of Buchanan**
**REP2-118-001**
**Sub-Question**

We have been instructed by Robert Alexander Buchanan, Harry Christopher Buchanan, Elizabeth Anne Buchanan and the

executors of Eileen Elizabeth Buchanan (â€œour clients') who own parcels of land affected by the proposed scheme. Further to the initial representations submitted on their behalf when registering them as an Interested Party (Interested Party reference number is: 20033163).

Our client objects to this proposal as there is significant development potential over this land. There is an option agreement over this site, and it is being actively promoted for residential development by Taylor Wimpey. Strutt & Parker and Taylor Wimpey's comments on behalf of the client are as follows: The land identified on the Land Plans in blue as â€œLand to be Used Temporarily and New Rights to be Acquired Permanently' is extensive, if the full extent becomes subject to permanent rights and therefore restrictions, this will have a significant impact on any future development potential. The route of the diverted high pressure gas main needs to be located as close to the western and northern boundaries as possible to limit the extent of any Permanent Rights that need to be acquired. Cadent are still yet to issue the design and location of the diverted high pressure gas main. The land identified on the Land Plans in Pink as â€œPermanent Acquisition of All Interests in Land' is less extensive but will still have an impact on any future development potential. The proposed maintenance access for the new drainage pond to the north of site, although proposed to run along the western and northern boundary of the site if fenced it will prevent a footpath link being made to the existing PROW along the western boundary. This footpath connection is significant as part of the sustainability strategy for the site and the opportunity to make this connection needs to be maintained.

It was agreed in principle with Ardent that if the site is developed access could be provided via the development, however this has not yet been formalised. The existing drainage ditch at the northern end of the site is included within the land for Permanent Acquisition of All Interests. This would prevent any development to the north of the ditch and the use of the ditch as part of any future drainage strategy. We propose control over the ditch needs to be retained. It was also proposed to Ardent that national Highways accept permanent drainage rights only.

Your faithfully, Jessie Holman and Edward Rout on behalf of Robert Alexander Buchanan, Harry Christopher Buchanan, Elizabeth Anne Buchanan and the executors of Eileen Elizabeth Buchanan

### **Applicant's Response**

The Applicant has been working with the Landowner and their representatives. The Applicant will continue to work with Cadent to

develop their detail design and is engaging with the landowner to discuss siting of the diversion, subject to Cadent's specifications and requirements as well as any constraints imposed by the DCO and EMP. The Applicant intends to design the gas pipeline corridor as close to the western and northern boundary of the site as practicable.

The Applicant requires an access to its proposed attenuation pond and, without agreement for the necessary rights to construct, use and maintain that access the Applicant must secure the freehold of the land identified to effect and maintain that access. The Applicant would be willing to explore whether an appropriate deed of easement containing the required powers can be secured by agreement, including, if appropriate, a procedure for modifying access in due course upon the provision of a suitable alternative or revised route by the landowner. The applicant is exploring the provision of a gate across the access track so that the Applicant can both use the access track and the Public Right of Way can be connected, if appropriate. It is agreed that provided the landowner provides an access to the attenuation pond, National Highways have some flexibility on the future route of the access track.

Freehold acquisition is proposed for the existing drainage ditch as physical modifications are required. The Applicant will consider whether it is possible to implement the proposed modifications and secure the required maintenance and user rights for the proposed works by agreement.

## Terling and Fairstead Parish Council

REP2-120-001

### Sub-Question

Further to Terling & Fairstead Parish Council's submission of 4th November 2022 (attached) we wish to submit two extracts from the Terling and Fairstead Village Design Statement (attached) which clearly illustrate the Conservation Area of the Parish and the number of listed buildings that would be affected if the proposed diversion route were to be approved. This is in addition to the Protected Lanes as stated in the November 4th 2022 submission. Please consider the impact this will have on the Terling and Fairstead Parish. TERLING & FAIRSTEAD PARISH COUNCIL

### Applicant's Response

The Applicant has responded to matters relating to listed buildings and protected lanes in the responses to RR-020-002 and RR-020-001 [REP1-002].

## Terling and Fairstead Parish Council

REP2-121-001

### Sub-Question

Comments on Junction 21 – southern link road removal (Hatfield Peverel) This will be the major link for the Terling community to the A12. Parishioners have previously suggested that their preferred route for coming to Terling from the west will be to exit at the improved Junction 19 and journey along B1137 to Terling Hall Road (or Station Road when the widened bridge is installed). This also has the potential to become the preferred route for delivery vehicles, works traffic and HGV transport. However, Terling Hall Road is a Braintree District Council (BDC) designated Protected Lane and there is a height restriction (12'6") on the East Coast main railway line bridge.

### Applicant's Response

The Applicant responded to the points raised in RR-020-001 which can be found in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience that response has been summarised below.

The impact on local roads has been assessed in the strategic traffic model. A summary of the impacts predicted by this model is provided in Section 2.6 of the Transport Assessment [APP-253]. The model has predicted that the proposed scheme would not significantly change traffic on either Terling Hall Road or Terling Road. In fact, a decrease in traffic is generally predicted on these roads, except on Terling Road in the AM peak where a 2% increase in traffic is predicted. The height restriction on the East Coast main railway line bridge is proposed to remain in place as part of the proposed scheme.

While the Applicant understands the need for further improvements to address historical issues and rat-running on the wider local network, the proposed scheme is not forecasted to change the attractiveness of this road for strategic journeys.

REP2-121-002

**Sub-Question**

The Protected Lane status of Terling Hall Road and others in and surrounding Terling and Fairstead, along with numerous listed buildings in the area make this an unsuitable option for through traffic during or after delivery of the scheme. We request assurance from the applicant that adequate plans are in place to permanently prevent traffic from taking this route or other routes incorporating Protected Lanes unless for direct access (restricted access only). We would suggest at a minimum that use of Terling Hall Lane as a possible access route to and from the car park at Hatfield Peverel needs to be conditioned “out” with suitable signage (e.g. no access to Hatfield Peverel Station).

**Applicant's Response**

The Applicant responded to the points raised in RR-020-001 which can be found in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience that response has been summarised below.

While the Applicant understands the need for further improvements to address historical issues and rat-running on the wider local network, the proposed scheme is not forecasted to change the attractiveness of this road for strategic journeys.

The Applicant's response to the use of signage on diversion routes is provided in the response to REP2-121-003 below.

REP2-121-003

**Sub-Question**

We note the applicant's outline plan for traffic management and are supportive of aims to keep traffic on the A12 for as long as possible, maximising day time working and Bury Lane access during delivery of the scheme. However, the applicant's current preferred diversion route for Hatfield Peverel station users not wanting to use the temporary station car park and non- essential

deliveries is inappropriate and should be reconsidered. The planned route runs the full length of a designated Protected Lane (Witham Road/Terling Road). As above (Terling Hall Lane), this road contains multiple listed buildings, is narrow in places with a very tight bend at the junction with Peg Millars Lane/Dancing Dicks Lane. This junction is also an accident hot-spot.

Peg Millars Lane, Blunts Hall Road and Dancing Dicks Lane are also Protected Lanes. Drivers following the diversion who become lost or follow shorter, alternative satellite navigation suggestions will materially increase traffic flow down these lanes and others in the surrounding areas, increasing the risk of damage to the lanes and accidents involving other road users (pedestrians, cyclists and horse riders). We are additionally concerned that HGV drivers following the diversion (unable to pass under the Terling Hall Road bridge) will travel through the centre of Terling village for their onward journey. This is inappropriate given the narrow roads, sharp bends, lack of pavement, lack of street lighting and proximity of residential buildings (a large number listed) to the road.

### **Applicant's Response**

The Applicant has responded to the points raised in RR-020-002 which can be found in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience that response has been summarised below.

The Applicant has considered other diversion routes. The route selected is the only viable option as this avoids obstructions such as low height bridges.

The Applicant notes that users of the Station Car Park travelling from the north will be able to do so in the same way as they currently do. It is not expected that users of the Station Car Park travelling from the south (and therefore unable to cross Station Road when it is closed) would divert and use the signed diversion route to access the existing car park. This is due to the additional 6.5-mile journey.

It is correct that delivery vehicles would generally be expected to use the signed divisions. As set out in Table 5.1 of the Outline Construction Traffic Management Plan [REP2-003] the majority of residential vehicles would be expected to use the temporary vehicular, pedestrian and cyclist connection between the Hatfield Grove and Bury Farm Estates. Therefore, it is anticipated that only a small number of the vehicles currently using Station Road would need to use the signed diversion route whilst Station Road is closed.

The Applicant's response to the use of protected lanes as part of the diversion route and use of signage on the diversion route is provided in REP2-121-004 below.

**REP2-121-004**

### **Sub-Question**

Terling and Fairstead Parish Council has now provided the applicant with a full list of designated Protected Lanes within the parish, along with known others in the local area (2nd November 2022). We are disappointed that prior consideration had not been given to lanes with Protected status or listed buildings around the scheme and now seek assurance via: alternative options, detailed plans for mitigation of risk of damage to these lanes, publically available surveys of the lanes and impacted roads (prior to and upon delivery of the scheme) and detailed plans for the reparation of lanes/impacted roads upon completion. It is our expectation that surveys of these routes prior to the commencement of the project will include a photographic survey, provided on public record to aid and ensure re-instatement.

### **Applicant's Response**

The list of protected lanes was set out in the Interested Party's relevant representation RR-020. The Applicant responded to this in RR-020-002 and RR-020-012 in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002].

The Applicant acknowledges that part of the proposed diversion route is a Protected Lane. It is not considered that the diversion route would have a negative impact on the setting of the Protected Lane. Due to the Protected Lane status, the Applicant does not propose to widen the Protected Lane.

As stated in paragraph 5.9.41 of The Outline Construction Traffic Management Plan [REP2-003], the Applicant would minimise impacts of the diversion routes by the use of suitable diversion signage. This would make it clear for road users to follow the proposed diversion route. Pre and post condition surveys would be undertaken on the diversion route. A risk assessment would be carried out on the proposed diversion route. If the risk assessment deemed a reduction in speed limits beneficial, a temporary



reduction in speed limits would be considered.

The Applicant has considered other diversion routes. The route selected is the only viable option as this avoids obstructions such as low height bridges.

An assessment was also undertaken on a temporary bridge over the Great Eastern Mainline as an alternative, details of this assessment can be found in RR-20-002 Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002].

**REP2-121-005**

**Sub-Question**

We would also bring to the attention of the applicant that suggested alternative routes which are not currently on Protected Lanes are largely on unrestricted and unlit country roads. In many cases these roads are single track with limited passing places and a speed limit of 60mph. We would expect that the DCO condition that any options for preferred diversion routes limit the speed for the duration of the diversion period.

**Applicant's Response**

The Applicant would carry out a risk assessment in respect of any proposed diversion. If that risk assessment recommended a reduction in speed limits, a temporary reduction in speed limits would be considered, see paragraph 5.9.41 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003].

Any proposed speed controls would be consulted upon with the Police and Local Highway Authority, who are key attendees of the proposed Traffic management Working Group, see OCTMP Table 3.1. Terling and Fairstead Parish Council would also be invited to attend the Local Area Traffic Management Forum.

**REP2-121-006**

**Sub-Question**

We understand that the applicant had previously agreed to provide detailed costings of an alternative option of taking vehicles from the proposed junction 21 to the north of the railway line, connecting to the existing road network between Hatfield Peverel and Titbeeche. We are not aware of this having been provided to the Examining Authority and conclude therefore that this exercise wasn't completed prior to consultation or since, despite the advantages communicated. We request again that detailed costings are provided to the Examining Authority given that the suggestion was discounted due to "prohibitive costs".

**Applicant's Response**

The Applicant previously responded to this point, which was raised in the Interested Party's relevant representation RR-020. The Applicant's response can be found in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience that response has been summarised below.

The Applicant has considered an order of magnitude estimate for its current proposal as well as for a temporary road bridge over the railway while Station Road is closed as an alternative option.

The latter considers savings, such as the temporary car park, that would not be required if a temporary road bridge over the railway were provided (neither order of magnitude estimate has included the cost of the temporary foot and cycle crossing of the A12, as this would be required in both scenarios).

The increase in cost associated with providing a temporary road bridge over the railway is anticipated to be between £4.0 million and £7.2 million. The additional costs are primarily due to the following

- - The temporary bridge
- - Additional roads and foot/cycleway and associated drainage etc.
- - Additional utility diversions

- - Costs associated with working over a railway

REP2-121-007

### Sub-Question

For avoidance of doubt, Terling and Fairstead Parish Council will seek to oppose the existing preferred diversion route and any mitigation plans which could present risk of damage to Protected Lanes, listed buildings, safety of residents, safety of road users and the rural nature of the parish. We note that another DCO in the area (Longfield Solar Farm) has given consideration to Protected Lanes and the rural nature of area and we would urge meaningful conversation, with genuine collaboration on these issues for the benefit of parishioners. We note more generally that there does not appear to be joint working between Essex Highways (for the Chelmsford Eastern Bypass), Longfield Solar Farm and National Highways based on information shared to date. The present construction programmes appear to be concurrent, which will place significant pressure on the road infrastructure. As above, we consider that meaningful conversations between the groups will be for the benefit of parishioners. May we please encourage National Highways to present their combined views.

### Applicant's Response

The Applicant responded to the points raised in RR-020-002 and RR-020-003 in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience that response has been summarised below.

The Applicant has considered other diversion routes. The route selected is the only viable alternative as this avoids obstructions such as low height bridges.

The Applicant has held several meetings with the Longfield Solar Farm Scheme. The Applicant submitted an Interrelationship Document [APP-271] as part of the DCO application. The Applicant has agreed a Statement of Common Ground with the promoter of the Longfield Solar Farm application (TR010044) [REP6- 100] which sets out the agreed position in relation to construction traffic for the period of overlap between these two projects. The construction traffic from Longfield Solar Farm would use junction 19, but

the numbers of movements proposed by Longfield Solar Farm are within the junction capacity.

The Applicant has also had extensive engagement with Essex County Council, the local highways authority, where local roads and the interaction with the Strategic Road network were discussed.

**REP2-121-008**

### **Sub-Question**

The current National Highways proposals appear to combine to place extra traffic generation at “pinch points” at Maldon Road and The Street (Hatfield Peverel) as well as proposed improvements to Wellington Bridge. Is the intention to have traffic lighted controls or flow metering priority traffic management in these locations. The HGV traffic and its separation from local traffic in Maldon Road and The Street is a source of continuing concern. Will The Street have to become a “clearway” to resolve the issue?

### **Applicant's Response**

The Applicant has responded to the points raised in RR-014-004 in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience that response has been summarised below.

The Applicant has undertaken detailed traffic assessments of The Street and Maldon Road and found that the proposed scheme is forecast to reduce traffic on The Street as traffic is directed to the proposed new junction 21 to access the A12. There is a small forecasted increase to traffic on Maldon Road, however this is within the capacity of the road and is not forecasted to affect the operation of the Maldon Road/The Street mini-roundabout in any discernible way. Information on the forecast traffic volumes is available in the Transport Assessment [APP-253].

As the traffic is not forecast to increase beyond the capacity of the roads, interventions such as traffic lights and clearway zones have not been included in the proposed scheme.

**REP2-121-009**

**Sub-Question**

We take comfort that National Highways remain committed to doing their part to find a joined- up solution for the identified issues on the Maldon Road and The Street in Hatfield Peverel. Other questions relating to the proposed scheme: • Will Junction 21 be lit at night? • We note that a significant area of privately owned land is subject to the DCO. From the plans shared, it doesn't appear that this area is to be used for road. Are we right to assume that the land will be returned to the stewardship of the existing owner on completion of the project? If not, what plans are in place to ensure that the area lost will continue to be managed in a way that encourages wildlife, biodiversity and enjoyment of any public rights of way/permitted paths by way of a comprehensive section 106 Agreement conditioned in a permitted DCO? • Are there to be any traffic data monitoring screens in the junction 19- 22 area? • When are temporary access routes to be established (for both traffic and pedestrians)? • Will there be any permanent improvements made and will the condition of the route be established both prior and post the proposed diversions?

**Applicant's Response**

The Applicant previously responded to these questions in response to the Interested Party's relevant representations RR-020-005, RR-020-006, RR-020-007, RR-020-008, RR-020-009. That response can be found in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience the Applicant's previous response has been summarised below.

The Applicant has undertaken detailed traffic assessments of The Street and Maldon Road and found that the proposed scheme is forecast to reduce traffic on The Street as traffic is directed to the proposed new junction 21 to access the A12. There is a small forecasted increase to traffic on Maldon Road, however this is within the capacity of the road and is not forecasted to affect the operation of the Maldon Road/The Street mini roundabout in any discernible way.

The proposed scheme includes lighting during the hours of darkness at junction 21. For further information on the extent of proposed road lighting please refer to the Environmental Masterplan (Figure 2.1 of the Environmental Statement [APP-086, APP087 and APP-088])

All land shown green on the Land Plans [AS-009] would be used temporarily to facilitate the construction of the proposed scheme

and would be re-instated to its original use and handed back to the landowner once the works are complete. The Applicant would be accountable for the management and maintenance of all land to be permanently acquired (shown pink on the Land Plans) by the proposed scheme.

The proposed scheme's operational concept between junction 21 and junction 25 includes Variable Message Signs which respond to congestion and collisions to inform drivers of incoming hazards and changes to the variable speed limit and lane closures.

The detailed programme for temporary restrictions is yet to be established, however the OCTMP [REP2-003] was updated at Deadline 2 and in Section 8 includes further details of public right of way closures.

The Applicant would conduct a pre-condition survey of diversion routes, prior to being used as temporary routes, and a post-condition survey upon completion of the temporary use as described in Section 4.4 of the OCTMP.

**REP2-121-010**

### **Sub-Question**

Comments on improved road surfacing and removal of noise barrier (Hatfield Peverel) We support the improvement to road surfacing and look forward to learning of proposed, permanent noise reduction. We have also had comments concerning permanent deer proof fencing be considered between junctions 19 and Junction 20a and 20b. There have been wildlife kills in this area with consequent disruption to traffic.

### **Applicant's Response**

The Applicant previously responded to these questions in response to the Interested Party's relevant representations RR-020-010 and RR-020-011. That response can be found in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience the Applicant's previous response has been summarised below.

Details of the improved road surfacing and predicted reductions in noise along the route of the proposed scheme are within Chapter 12: Noise and vibration, of the Environmental Statement [APP-079]. The locations where the surface with better noise reducing

properties than a conventional low noise surface is to be used are shown on Figure 12.4 [APP-231] and Figure 2.1 Environmental Masterplan [APP-086, APP-087 and APP-088] of the Environmental Statement.

The Applicant acknowledges concerns with respect to wildlife road casualties and the disruption this causes. Proposals for fencing between junction 19 and junction 21 would be developed at detailed design and deer fencing would be considered in areas where there may be an issue with wildlife collisions.

**REP2-121-011**

### **Sub-Question**

Protected Lanes Please find below the list of Protected Lanes in the Terling and Fairstead Parish with the addition of one protected lane just outside the Parish. Terling Hall Road Rolls Farm Lane Gambles Green Lane Terling Hall Road/Church Road Waltham Road Noakes Farm Road Blunts Hall Road/Dancing Dicks Lane Terling Road Witham Road Peg Millars Lane Fairstead Road Fairstead Hall Road Braintree Road Pole Road/Fairstead Lane Fairstead Lodge Road Boreham Road/Cole Hill (Protected Lane outside Terling and Fairstead)

### **Applicant's Response**

The list of protected lanes was set out in the Interested Party's relevant representation RR-020. The Applicant responded to this in RR-020-002 and RR-020-012 in the Deadline 1 Submission - 9.3 Applicant's Response to Relevant Representations - Rev 2 [REP1-002].

In response to this Written Representation, the Applicant notes that

- the proposed scheme would not significantly change traffic flows on either Terling Hall Road or Terling Road (See REP2-121-001 above)
- It is not considered that the diversion route would have a negative impact on the setting of Witham Road. Due to the

Protected Lane status, the Applicant does not propose to widen the it (See REP2-121-004 and others above).

## The landowners comprising the Gershwin Park Consortium

REP2-123 and REP2-124-001

### Sub-Question

Submission ID: 14052

We are instructed by the private landowners acting under a collaboration agreement, in term working with the wider landowner group through a joint venture agreement with Churchmanor Estates (regional based commercial property developer) to bring forward the employment-based part of a major mixed-use development.

The majority of the site has now been built out and the parties are working to bring forward the remaining parts of the site with the benefit of an extant outlining planning consent. The A12 Chelmsford to A120 Widening Scheme plans submitted at DCO impacts significantly on 2 areas of the development, frustrating the provision of further employment on the remainder of Gershwin Park.

We are in discussions with the relevant project team with regards to these impacts but to date there has been no satisfactory resolution to the landowners' concerns despite concerted efforts from the landowners side to work with the relevant project team. This is characterised in the email trail shown attached to this submission.#~BELOW IS SEPARATE ATTACHEMENT -EMAIL FROM OLIVER LUKIES Oliver From: LUKIES Oliver Sent: 06 January 2023 09:44 To: 'Cc: 'Matt Cloke'; 'Paul Fosh'; ROUT Edward Subject: RE: A12 Landowner Meeting - Churchmanor / Gooding / Witten Attachments: RE: [EXTERNAL] RE: A12 - Proposed TM Recovery Yard- STC; 2022-01-21 - 2022-11-18 Gooding + Ashby-Witten - A12 Interim fee.xls Dear All Happy New Year Apologies for chasing but we would appreciate responses/an update on the below points made in my email. I look forward to hearing from you. Kind regards Oliver Oliver Lukies BSc (Hons) Assistant Surveyor, From: LUKIES Oliver Sent: 05 December 2022 16:45 Subject: A12 Landowner Meeting - Churchmanor / Gooding / Witten Without Prejudice and Subject to Contract Dear All Further to our most recent meeting, I have discussed our conversations with Paul and we wanted to make the following points; - With regards to the attached proposal we have submitted to you for the land you have allocated for a recovery yard/compound, this proposal was



submitted in good faith on our part and with the understanding that National Highways were wanting to establish their occupation of the land via agreement as opposed to going down the line of using their CPO powers (once acquired). Therefore, our proposal was submitted on a fair commercial basis. However, on our call Simon suggested that he would not be able to recommend our proposal to Highways as in his opinion any claim resulting from their occupation was likely to cost them less than if they 2 were to occupy the land by agreement. We feel that if this is Highways position then this should have been communicated to us prior to being asked to table a proposal. Furthermore, as I outlined in the call, the idea of moving forwards by agreement was to mitigate compensation claims and time spent on the matter, whilst also providing certainty to all parties. For our understanding going forwards, Simon please can you confirm Highways position on the matter including what terms they would offer, if any, should they be willing to move forwards by agreement. - With regards to the land you have designated for Land Acquisition (parcel 7/14a), I will leave this with Matt Cloke (copied in) to provide commentary on what was discussed as he is leading on this matter. - With regards to the Replacement Land Proposals, as Paul has outlined previously – in principal he does not believe that our clients would have an issue with the acquisition of “open space land”. He and Matt suggested previously that it could be transferred to the council or National Highways, providing the clients were compensated appropriately, prior to DCO acceptance to make the process smoother for all parties. As discussed at the meeting, Simon please could you table some dates and times for a Teams meeting to enable us to discuss this further/arrange next steps i.e. issuance of HOT's. - On the matter of professional fees – please see attached interim fee timesheets for S&P to 2022-11-18 for Simon's review. I understand Paul will be following up with his own timesheets in due course. S&P's year end is 9 th December this year so I would appreciate a quick response to enable us to get our interim fee raised in time – apologies for the quick turnaround required. Kind regards Oliver Oliver Lukies BSc (Hons)

### **Applicant's Response**

The Applicant has been in discussions with Churchmanor Estates and has made an offer through the Valuation Office Agency for the land required permanently and is awaiting a response from the Interested Parties' agent.

Regarding the land proposed to be temporarily possessed and used for a traffic recovery compound, discussions are ongoing with the Landowner's agent.

<b>Tiptree Parish Council</b>	<b>REP2-125-001</b>
<b>Sub-Question</b>	
<p>1. Tiptree Parish Council (TPC) welcomes the proposed A12 widening scheme. However TPC is concerned that: a. National Highways (NH) have not adequately considered the impact of the Junction 24 proposals upon traffic flow in Tiptree village. b. This has resulted in flawed methodology that has led to an inappropriate siting of Junction 24</p>	
<b>Applicant's Response</b>	
<p>The Applicant acknowledges the Interested Party's comments, but notes that this is a summary of their more detailed Written Representation [REP2-127]. The Applicant has responded to that detailed Written Representation rather than this summary.</p>	
<b>REP2-125-002</b>	
<b>Sub-Question</b>	
<p>2. The lack of informed modelling of traffic flow through Tiptree has led to assumed benefits that have been shown subsequently to be of no benefit at all.</p>	
<b>Applicant's Response</b>	
<p>The Applicant acknowledges the Interested Party's comments, but notes that this is a summary of their more detailed Written Representation [REP2-127]. The Applicant has responded to that detailed Written Representation rather than this summary.</p>	
<b>REP2-125-003</b>	

<b>Sub-Question</b>
3. In particular, the policy that directs all traffic onto a single minor road (Inworth Road) has been shown to be unacceptable, not least because of the potential for traffic through the centre of Tiptree to increase by up to 150%.
<b>Applicant's Response</b>
The Applicant acknowledges the Interested Party's comments, but notes that this is a summary of their more detailed Written Representation [REP2-127]. The Applicant has responded to that detailed Written Representation rather than this summary.
<b>REP2-125-004</b>
<b>Sub-Question</b>
4. Traffic modelling by NH clearly leaves much to be desired. The latest figures predicting traffic increases in Inworth Road that are only 10% of what they were predicted to be in 2019 does not inspire confidence in predictive computer modelling by NH. NH cannot have it both ways. The predicted 150% increases in 2019 were clearly unacceptable. If these are correct then the huge increase in traffic in Inworth Road and through Tiptree village centre makes it obvious that Junction 24 should not be placed in this location. If the latest figures are correct then the original justification for placing the Junction in Inworth Road is no longer valid. Either way there is no valid justification for the proposed siting of Junction 24.
<b>Applicant's Response</b>
The Applicant acknowledges the Interested Party's comments, but notes that this is a summary of their more detailed Written Representation [REP2-127]. The Applicant has responded to that detailed Written Representation rather than this summary.
<b>REP2-125-005</b>

**Sub-Question**

5. The best solution is to leave Junction 24 at Prested Hall (as per option A). That way traffic levels in Church Road, Inworth Road and Braxted Park Road will remain at levels similar to existing levels. Together with necessary improvements to the Braxted Park Road, this will provide good access to the A12 without resulting in unacceptable levels of traffic through Church Road, Tiptree or Inworth Road.

**Applicant's Response**

The Applicant acknowledges the Interested Party's comments, but notes that this is a summary of their more detailed Written Representation [REP2-127]. The Applicant has responded to that detailed Written Representation rather than this summary.

**Tiptree Parish Council**
**REP2-126-001**
**Sub-Question**

Tiptree Parish Council case regarding the siting of A12 Junction 24

Ref no: 20032917

For the Summary Document: see Library document RR-144 Tiptree Parish Council 1. Tiptree Parish Council (TPC) welcomes the proposed A12 widening scheme. However TPC is concerned that: a. National Highways (NH) have not adequately considered the impact of the Junction 24 proposals upon traffic flow in Tiptree village. b. This has resulted in flawed methodology that has led to an inappropriate siting of Junction 24 2. I wish to refer you to The Highways England (now National Highways) A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020 and Appendix D Junction 24 in particular. This report sets out the alternative schemes considered for the siting and layout of Junction 24. 3. The report settles on the current proposal to site Junction 24 at the bottom of Inworth Road, between Tiptree and Feering. 4. Paragraph 3.3.2 on page 9 of the main report explains the justification for relocating junction 24 in the above position, i.e. further south, to the west of Inworth Road compared to the current

location. The paragraph states, 'Following the Non-Statutory Public Consultation events held in 2017, it emerged that there was a preference for a junction on Inworth Road ..... (this) ..... promotes the right traffic on the right roads as it reduces the volume of strategic traffic making journeys on the wider local road network ..... It is also understood that a junction near Inworth Road provides an economic benefit to the scheme .... particularly because the junction becomes more attractive for traffic from Tiptree and reduces journey times. 5. This justification is further elaborated upon in Appendix D Junction 24. This appendix explores a number of alternative options for Junction 24 before settling on the current proposal (Option F). It cites the following benefits (but I wish to draw your attention to the top three): a. Promotes the right traffic on the right roads b. Tiptree to A12 (SB) traffic joins the A12 at the new junction 24 location, instead of travelling via Rivenhall End. c. Significant reduction on cross-country route along Braxted Park Road, and therefore lower traffic at junction 22 compared to Stage 2 location. d. The reduction in traffic on Braxted Park Road and Rivenhall End should have the effect of reducing casualty rates in those areas. e. Most cost efficient f. Reduced impact on Prested Hall, as the junction moves west. g. Lowest level of traffic on Inworth Road between J24 and Gore Pit. h. Addresses statutory stakeholder request for moving the junction towards Inworth Road. i. Reduced impact on Crown Estate land. 6. It is clear that 'the right traffic on the right roads' means all traffic uses Inworth Road to reach the A12 via the new Junction 24 rather than Braxted Park Road to access the A12 via Rivenhall End. The prospect of a new all-ways Junction in Inworth Road, attractive to both north and south-bound traffic from Tiptree and with shortened journey times would, at first glance, appear preferable to Tiptree residents. However this view is totally lacking any detailed consideration of the impact of such a scheme upon traffic flow through Tiptree village. It is disappointing that NH regarded any impacts upon Tiptree as 'a local issue' and consequently excluded Tiptree village from any detailed analysis in these formative stages. 7. The Traffic predictions published by NH illustrated the supposed benefits of the scheme. 8. The October 2019 consultation, at the time of the proposed Marks Tey Garden Village, predicted the following traffic volumes in Inworth Road (Table p33, A12 Chelmsford to A120 widening junctions 23 to 25 Consultation Brochure):

9. Options A and B retained Junction 24 in its present position near Prested Hall. Note the minimal predicted increase in traffic. Options C & D envisaged the Junction being moved to Inworth Road. This represents an increase in morning peak traffic of almost 150%. 10. The Highways England (now National Highways) A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020, Appendix D Junction 24 (Option F) predicted the peak morning traffic in Inworth Road would increase by 1224 PCUs (Passenger Car Units) per hour from 793 to 2017 PCUs per hour by 2042. This represents a 154% increase. It also predicted a decrease in Braxted Park Road. This is in contrast to the DS Stage 2 proposal in which Junction 24 remains in its

present location near Prested Hall (but without the spur from Inworth Road). In this scenario the morning peak increase in Inworth Road is only +21 and the increase in Braxted Park Road +116. Nevertheless this option (DS Stage 2) was rejected because it does not relieve Braxted Park Road traffic in the same way as Options E or F and because it is the least effective option at reducing northbound delays for traffic approaching Gore Pit from Inworth. 11. Not surprisingly the huge increase in traffic predicted for Inworth Road caused great alarm among the residents of Inworth. It was also quickly realised that much of the extra traffic would be passing along Church Road, through the centre of Tiptree. 12. Tiptree has a population of some 10,000 and is a designated 'District Centre' supplying the needs for the surrounding rural communities. As such it includes three supermarkets and a variety of shops and businesses not to mention four primary schools and a large secondary school. Church Road is the shopping and commercial centre of Tiptree and it already suffers from high levels of through traffic making Church Road difficult to cross and contributing to high levels of ground-level pollution. 13. It has long been an aim of Tiptree Neighbourhood Plan to avoid, as far as possible, any significant increase in Church Road traffic. For example, proposed future development in Tiptree is positioned to the north and west where residents can access the A12 and other main routes without passing through Church Road. 14. The 'through traffic' in Tiptree originates from settlements to the east such as Tollesbury and West Mersea. For traffic heading for the A12 southbound (SB), Tiptree is on the direct route. 15. An important strategy, developed at an early stage of Neighbourhood Planning following community consultation in 2016, was to encourage traffic heading to the A12 southbound to use Station Road and the Braxted Park Road route via Rivenhall End, whilst northbound traffic (there is less NB through traffic) would continue to use Church Road and Inworth Road to access Junction 24 north-east of Feering. These routes are shown on the map above. 16. The map above also shows the A12 widening proposals that were subsequently made public in 2020 after our initial Neighbourhood Plan publication. These included a new 4-way Junction 24 at the bottom of Inworth Road. It was immediately obvious that this proposal would result in far larger volumes of traffic in Inworth Road and Church Road as both north and southbound traffic headed for this new junction. 17. Tiptree NP considers that the benefits claimed under a, b and c (paragraph 5 above) completely contradict the NP and do not constitute benefits in the light of the predicted increase in traffic in Inworth Road and the likely commensurate increase in Church Road as southbound traffic from Mersea and settlements to the east makes its way to the new junction. 18. This increase in Inworth Road traffic has rightly caused concern to the residents of Inworth and Messing cum Inworth Parish Council. The road is not designed for this volume of traffic and there remain significant 'pinch points' that cannot be addressed. 19. Tiptree PC has also expressed its concerns regarding the failure by NH to adequately consider the potential impact of the Jc 24 proposal on traffic flow in Tiptree and the likely unacceptable levels of traffic in Church Road. 20. The response by NH has been to revise its computer

modelling. The revised predictions make interesting reading. The NH sources for the following information are provided in Appendix A. 21. At a TEAMS meeting with Highways England on 23rd November 2020 Tiptree PC was given to understand that, due to revised computer modelling, the predicted peak morning increase in Inworth Road traffic had fallen from 1032 PCU and was now 975 PCU. It was still predicted that traffic in Braxted Park road would decrease. 22. At the June 2021 consultation the peak morning increase was given as 674 PCU taking traffic from 729 PCU to 1403 PCU (a 92% increase). A decrease in Braxted Park Road was predicted. 23. In the supplementary consultation brochure of November 2021 the updated computer prediction is given to be an increase of only 327 PCU, from 784 PCU to 1,111 PCU. This represents an increase of 42%. 24. Finally, at the TEAMS meeting with National Highways on 15th March 2022, Tiptree PC was told that the increase in traffic entering Kelvedon (Inworth) Road at the Factory Shop roundabout was only 110 vehicles per hour (vph). Since this is the major source of traffic entering Inworth Road it is difficult to see how this figure compares to the increase of 327 given in November 2021. NH had no answer to this. Tiptree PC was also informed that NH believed that all southbound traffic entering Tiptree from the east would follow the Station Road – Braxted Park Road route via Rivenhall to access the A12. This is in complete contrast to the conclusions drawn in 2020 and quoted at paragraph 5 point b above. Two further slides presented by NH to Tiptree PC on 15th March 2022 are included in Appendix A. One slide predicts an increase in traffic on Inworth Road towards the new junction 24, accompanied by a decrease on Braxted Park Road. It explains that this is driven by changes in traffic patterns for traffic from Tiptree itself such as traffic from east of Tiptree now travelling to J24 to head south on A12, instead of via Station Road/Braxted Park Road/Rivenhall End. This is in complete contradiction to the previous slide that states that no traffic arriving in Tiptree from the east is predicted to use the new junction 24 to travel south on the A12 – rather it will travel via Braxted Park Road. 25. The Table below summarises the figures quoted for morning peak traffic increases in Inworth Road

Year Present (vph) Increase new total (vph) % increase (Date)

2019 700 +1032 or +1049 =1732 or 1749 150 (opening)

2020 (Appendix D J24) 793 +1224 =2017 154 (2042)

2020 (November) +975 (c139) (2027)

2021 (June) 729 +674 =1403 92 (2027)

2021 (November) 784 +327 =1111 42

2022 (March) +110\* (c14) (2027)

\*This is the projected increase in Kelvedon Rd at the Factory Shop double roundabout 26. It is evident that NH now accepts that promoting 'the right traffic on the right roads' means, in this case, encouraging southbound traffic from Tiptree to use Braxted Park Road and access the A12 via Rivenhall End and for northbound traffic to use J24. 27. So we are forced to the conclusion that the original justification for adopting Option F (paragraph 5 a, b & c above) is no longer valid. Indeed the assumed benefits (a, b & c) have been shown to be neither factually correct nor desirable. 28. In summary: The justification for moving junction 24 to Inworth Road was that it would shorten journey time from Tiptree and that all A12 bound traffic from Tiptree would use this junction thus reducing traffic in Braxted Park Road. The computer modelling supported this view with a 154% increase in traffic in Inworth Road. Subsequently, and in the face of opposition, revised modelling showing smaller and smaller increases in traffic in Inworth Road and a commensurate increase in Braxted Park Road traffic is now used to justify the retention of Junction 24 in this new position. This is of course absurd and the original justification for moving junction 24 in the first place has been completely undermined. 29. Such flawed and muddled thinking cannot be allowed to determine the future of our road network. Local communities will be living with the consequences of this decision for decades. 30. There needs to be a reconsideration of the original DS stage 2 option where J24 remains at Prested Hall (paragraph 9 above). The reasons for rejecting this option are also no longer valid. The reasons given for the dismissal of this option are, 'it does not relieve Braxted Park Road traffic in the same way as Options E or F and because it is the least effective option at reducing northbound delays for traffic approaching Gore Pit from Inworth Road (at Blue Anchor Pub)'. 31. However it is now recognised that it is not desirable to relieve Braxted Park Road and the problems at Gore Pit are easily solved by a spur from Inworth Road to the Junction as proposed in Option A (detailed in The Highways England (now National Highways) A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020, Appendix D Junction 24). 32. Option A should most certainly be reconsidered in the light of subsequent developments in traffic predictions and theoretical considerations. This is the preferred option for Tiptree PC as the diversion towards Colchester would be a disincentive to southbound traffic thus maintaining the 'split' between southbound and northbound traffic. This would keep traffic in Church Road at current levels and only create a very small increase in Inworth Road traffic (see paragraphs 8 & 9). 33. In Conclusion. 34. The lack of informed modelling of traffic flow through Tiptree has led to assumed benefits that have been shown subsequently to be of no benefit at all. 35. In particular, the policy that directs all traffic onto a single minor road (Inworth Road) has been shown to be unacceptable. 36. Traffic



modelling by NH clearly leaves much to be desired. The latest figures predicting traffic increases in Inworth Road that are only 10% of what they were predicted to be in 2019 does not inspire confidence in predictive computer modelling by NH. TPC is left feeling that NH is telling us what they think we want to hear and it is hard to know what to believe. But NH cannot have it both ways. The predicted increases in 2019 were clearly unacceptable. If these are correct then the huge increase in traffic in Inworth Road and through Tiptree village centre makes it obvious that Junction 24 should not be placed in this location. If the latest figures are correct then the original justification for placing the Junction in Inworth Road is no longer valid. Either way there is no valid justification for the proposed siting of Junction 24. 37. The best solution is to leave Junction 24 at Prested Hall (as per option A). That way traffic levels in Church Road, Inworth Road and Braxted Park Road will remain at levels similar to existing levels. Together with improvements to the Braxted Park Road (see below) this will provide good access to the A12 without resulting in unacceptable levels of traffic through Church Road, Tiptree or Inworth Road.

The Braxted Park Route Wherever Junction 24 is placed, the Braxted Park Road route via Rivenhall needs to remain a viable and attractive option for southbound traffic. In this respect the doubling of Appleford Bridge is considered essential (see also Appendix B) plus the creation of a roundabout at the Maldon Road/Braxted Park Road junction. If Junction 24 is placed at the bottom of Inworth Road the impacts on Tiptree are likely to be severe and very difficult to mitigate. Nevertheless these upgrades to the Braxted Park Road become even more essential. In addition, serious consideration will need to be given as to how to prevent lorries, heading east from the A12, exiting at J24 and subsequently passing through Church Road. The most obvious way to achieve this is to leave Junction 24 in its current position, further north-east towards Colchester. TPC invites the Examining Authority to give careful consideration to these serious concerns and it looks forward to further opportunity to discuss this matter. Cllr Jonathan Greenwood Chairman of Tiptree Parish Council Chairman, Tiptree Neighbourhood Plan Steering Group On behalf of Tiptree Parish Council January 2022

### **Applicant's Response**

The Applicant has responded to many of the points raised in this Written Representation in its Deadline 1 Submission - 9.10 Applicants Response to Open Floor Hearing 1 - Rev 1 [REP1-009]. However, for convenience the points made in that submission have been repeated below. Some additional points which were not addressed in that Deadline 1 submission have also been

included in the response below.

The Applicant welcomes Tiptree Parish Council's recognition of the need for improvements to the A12. The Applicant does not believe its consideration of the location of junction 24, nor the Applicant's considerations of impacts, are flawed.

As summarised in Tiptree Parish Council's Written Representation, a detailed technical assessment of took place to consider the appropriate junction strategy for the proposed scheme following the 2017 consultation. The assessment included consideration of consultation feedback which included the possibility of moving junction 24 from its existing location to Inworth Road and making it an all movements junction. A full assessment was undertaken which concluded the best performing solution would be to relocate the junction from its existing location to Inworth Road. A number of benefits for the proposed location were identified, which were not limited to traffic impacts. This proposed location of J24 allows long-distance traffic to join the A12 without going through Kelvedon and Feering, and reduces the desirability of joining the A12 southbound at J22 from Tiptree. In doing so it improves the operation of J22, it minimises the visual impact to Prested Hall, addresses requests made by several statutory stakeholders in Stage 2 for moving the junction towards Inworth Road, minimises impact on The Crown Estate land, and provides an opportunity to construct the junction in cutting, which reduces the amount of construction material needed to be brought onto site.

As noted in Section 5.4 of the Consultation Report [APP-045] the parish of Tiptree was included in the distribution area for the statutory consultation to ensure that residents and business were offered the opportunity to respond. Furthermore, the Parish Council was contacted directly by The Applicant on the day the Statutory Consultation launched, as it has done on all other major milestones.

The Applicant has met with the Parish Council on several occasions starting in 2016. The most recent information on the predicted traffic impacts in Tiptree was shared as part of a meeting between the Applicant and Tiptree Parish Council in March 2022. This showed that:

- On the B1023 Church Road to the south of the double mini roundabouts, traffic is predicted to increase by 166 vehicles in the AM peak hour, and 132 vehicles in the PM peak hour.
- On the B1023 Kelvedon Road to the north of the double mini roundabouts, traffic is predicted to increase by 171 vehicles in the AM peak hour, and 100 vehicles in the PM peak hour.

- On B1022 Maypole Road to the east of the double mini-roundabouts, traffic is predicted to decrease by 168 vehicles in the AM peak hour, and 151 vehicles in the PM peak hour.
- On B1022 Maldon Road to the west of the double mini-roundabouts, traffic is predicted to decrease by 54 vehicles in the AM peak hour, and 76 vehicles in the PM peak hour.

The effect of this additional traffic through Tiptree has been assessed by the Operational Road Safety specialists who support the design team. For Tiptree, evaluation combined three components:

- Safe Road Design activities: Operational Road Safety specialists supporting day to day activity and review, looking at predicted change in traffic levels and the potential road safety impact. The changes in traffic flow were considered to be within the safe capacity of the network to accommodate.
- A site visit by the Operational Road Safety lead to the affected links and junctions to observe form and operation to consider potential impact. No problems were raised in Tiptree area that had not already been addressed.
- The Road Safety Audit (RSA) of the whole project, in accordance with DMRB standard GG 119, undertaken by a team of two experts not otherwise involved in any part of the scheme design. This reviewed the scheme proposals including traffic information and reported all road safety concerns with proposed actions to mitigate the identified Problems. No problems were raised in relation to Tiptree area in that RSA

On this basis, the Applicant is satisfied that the roads can operate safely without changes.

Regarding the traffic impact on the B1023 further north through Inworth, the Applicant has proposed upgrades to the B1023 to address a number of concerns raised by both the community and identified in the proposed scheme's assessment. These proposals are outlined in the Applicant's response to Colchester City Council's Local Impact Report in paragraphs 8.9-8.10.

Regarding the changes in traffic model predictions on the B1023 compared to earlier in the scheme development and consultation process, these were explained in meetings between the Applicant and Tiptree Parish Council including in March 2022. The traffic changes of 150% quoted in Tiptree Parish Council's Written Representation were presented in 2019, showing the predicted impact of four now discarded route options which took into account the Colchester Braintree Borders Garden Community, which was subsequently removed from Local Plan documents. An updated traffic model was developed for use in the June 2021 Statutory

Consultation. This traffic model was then revised ahead of the proposed scheme's DCO submission, to incorporate more recent traffic data and planning data. In line with national traffic modelling guidance, the model takes into account current trips as well as future housing and employment developments which have planning applications. Further information summarising the changes to the traffic model results over the course of the proposed scheme's development are provided in the Appendix of this document (Appendix OFH1A: Explanation of Traffic Model Changes). This includes specific detail on traffic flow changes on the B1023 in chapter 3.

The traffic changes of 92% and 42% shown in consultation brochures in June and November 2021 respectively were for a section of the B1023 through Inworth in the AM peak hour. In contrast, the traffic increase of only 110 vehicles per hour quoted in Tiptree Parish Council's Written Representation as having been presented in March 2022 was for a different section of the B1023 – on the B1023 Kelvedon Road in Tiptree village, north of the double-mini roundabouts in the centre of Tiptree – during the PM peak hour. These traffic figures are therefore not directly comparable, and there has been no change in traffic predictions since those presented in November 2021.

The Parish Council's Written Representation correctly highlights one of the benefits identified of the proposed location of junction 24: that traffic from Tiptree can join the A12 southbound at the new junction 24 instead of travelling via Braxted Park Road to Rivenhall End. However, Braxted Park Road is intended to remain as a viable route for southbound traffic to access the A12 via junction 22. The Applicant notes that one of the stated aims in the Tiptree Neighbourhood Plan is to encourage traffic heading to the A12 southbound to use the route via Braxted Park Road via Rivenhall End.

Based on the most recent traffic model predictions shared with Tiptree Parish Council in March 2022, the majority of the predicted traffic on the B1023 through Inworth is traffic to or from the Tiptree area, using the proposed new junction 24 to access the A12. Although traffic from Tiptree itself is predicted to use the new junction 24 to join the A12 southbound, traffic from south-east of Tiptree (e.g., Mersea and other settlements) heading towards the A12 southbound is predicted to do so via Braxted Park Road (then to Rivenhall End, joining the A12 at junction 22). Further traffic information showing the origin and destination of traffic on the B1023 and Braxted Park Road in the traffic model has been provided in Appendix C of the Applicant's response to Essex County Council's Local Impact Report [TR01600/EXAM/9.37].

The justification for the proposed location of junction 24 has therefore not been eroded by updates to the traffic predictions. The

conclusion that traffic from Tiptree would use junction 24 to access the A12 southbound instead of travelling via Rivenhall End remains valid. There is still predicted to be a resultant decrease in traffic on the route via Braxted Park Road / Rivenhall End, as shown in image C.5 of the Transport Assessment – Appendix C: Traffic Flow Diagrams – Communities and A12 Mainline [APP-256]. Traffic from Tiptree heading northbound on the A12 could also use the new junction 24 instead of travelling through the village of Feering to the existing junction 24 or via the B1022 to junctions 25 or 26.

Even though the latest traffic model predictions show a smaller increase in traffic on the B1023 through Inworth, this does not alter the traffic-related impacts described in the Scheme Assessment Report Addendum (2020) Appendix D Junction 24. In addition, many of the reasons outlined above for why the proposed location of junction 24 was chosen do not specifically relate to traffic patterns.

The identified location for the link road for Option A sits within land owned by The Crown Estate, which is identified as a strategic growth location within the Braintree Local Plan. Interests in land held by the Crown cannot be acquired compulsorily, and it would not be expected that this interested could be acquired by negotiation given its strategic importance. Option A would have resulted in significant impact to Prested Hall and is a most costly and earthwork intensive option compared to Option F.

Regarding improvements to the Braxted Park Road route, as the proposed scheme is predicted to decrease traffic along this route, the Applicant does not consider it necessary to include the improvements proposed by Tiptree Parish Council as part of the proposed scheme.

## **Ulting Overseas Trust on behalf of Ulting Overseas Trust**

**REP2-128-001**

### **Sub-Question**

Submission ID: 14049 Our clients, Ulting Overseas Trust, Have been Registered as an Interest Party in this DCO application (Interested Party reference number is 20033158). Our clients own titles being land on the north east side of and plans submitted by National Highways as part of their DCO application propose to acquire part of the title permanently. The basis for this acquisition is

the construction and use of the A12 Widening, Junction 21 and ecological mitigation.

### **Applicant's Response**

The Applicant notes the Interested Party's comments.

**REP2-128-002**

### **Sub-Question**

Whilst alterations have been made to the scheme to reduce the impact on the area where there is significant development potential over this land for residential housing with notable interest from a developer, the Trust object to the proposed works which would prejudice the management of their land both in the short and long-term, with significant implications for their business operations. The land still due be acquired within is of interest to developers and it should also be noted that title number adjoining has outlined planning permission for 110 dwellings.

### **Applicant's Response**

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. The land proposed to be acquired in this location is not allocated for housing or employment development within the Braintree District Local Plan 2033.

The Applicant is aware of the outline planning permission for 110 dwellings on land north of Maldon Road, Hatfield Peverel (application reference 20/01264/OUT), which is outside of the proposed scheme's order limits. This application is included on the Applicant's short list of development included in Appendix 16.1 to the Environmental Statement [APP-182].

The Applicant has held several meetings with the Interested Party (meetings held on 8 October 2020, 4 February 2021, 8 October 2021 and 20 October 2022) and sought to address concerns raised as a result of these meetings as far as reasonably possible. This is shown by the significant reduction in permanent land take from what was consulted on at Supplementary Consultation in

November 2021 (Map Book 2 Updated Land Use Plans 1 of 3) and the submitted Land Plans [AS-009] (shown by plots 6/18a, 6/18b and 6/18c) The Applicant will continue to work with the Interested Party as the detailed design develops to further mitigate impacts where possible.

## The West Family

REP2-129-001

### Sub-Question

Jones Lang LaSalle Limited (JLL) is instructed by the above landowners (the 'West Family') regarding the development consent order application in respect of the above. We set out below Written Representations in accordance with Deadline 2 of the Examination. We should be grateful if these are considered Relevant Representations and that the above parties are considered Interested Parties for the purposes of the Examination. The West Family are owners of substantial landholdings which will be affected by the scheme, including significant permanent and temporary land-takes and material impacts on their retained land. Jack West submitted responses to the consultation in August 2021 and the supplementary consultation in November 2021 and he has sought to engage constructively with National Highways throughout the process. Our Written Representations are as follows.

### Applicant's Response

The Applicant notes the Interested Party's comments.

REP2-129-002

### Sub-Question

1. General The West Family do not object to the scheme in principle but seek amendments to the design of the scheme as detailed below. The scheme will require the acquisition of substantial development land suitable for much needed housing and will sever access to substantial further land to the south of the new road which has similar development potential.

### Applicant's Response

The Applicant notes the Interested Party's aspirations for development. The land parcels referred to are not allocated in the Colchester City Local Plan 2017-2033 Section 2 for housing development and thus it is not considered the proposed scheme will impact on development land in this location.

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.

**REP2-129-003**

### Sub-Question

Compulsory acquisition is intended to be a last resort and acquiring authorities are expected to make reasonable efforts to acquire land by agreement in parallel with the compulsory purchase process. National Highways has not yet entered into negotiations with the West Family in an effort to acquire the land needed for the scheme by agreement.

### Applicant's Response

T. It was confirmed by the Interested Party on 2 February 2023 that the West Family were in the process of appointing representation on this matter and would be in touch shortly to confirm those details. The new agent was contacted 20 February 2023 and a meeting was held on 2 March 2023 to progress acquisition by agreement.

**REP2-129-004**



<b>Sub-Question</b>
2. Permanent Land Acquisitions • Plot 18/18a – Consideration given to only temporary acquisition of this plot and returning it to the landowner with the balancing pond upon completion
<b>Applicant's Response</b>
<p>Where physical works to the existing condition of the surface of land are required and/or there is an ongoing need for the Applicant to hold the land for purposes of access for operational requirements and future inspections and maintenance, freehold powers have been sought.</p> <p>The proposed attenuation pond (S3-OU15A) as shown on Drainage and Surface Water Plans – Part 2, Sheet 18 of 21 [APP-034] is required in this location (Plot 18/18a) to mitigate the increased rates of runoff from the proposed scheme by storing the increased runoff that would result from the proposed highway improvement works in the vicinity of junction 25. . To ensure the proposed attenuation pond remains functional, the Applicant needs to hold the land for access for operational requirements and to undertake regular inspections and routine maintenance (e.g. clearing of any sediment accumulation at inlets/outlets to the attenuation pond, grass cutting and vegetation control including any necessary repairs, etc.) of the proposed attenuation pond and associated inlet/outlet pipework and outfall structure over the lifetime of the proposed scheme.</p>
<b>REP2-129-005</b>
<b>Sub-Question</b>
3. Temporary Land Possessions • Review of necessity/location of temporary possessions for construction works and ecological provision to mitigate the impact on retained land
<b>Applicant's Response</b>

Further detail on the use of the temporary land plots can be found in the Statement of Reason (SoR) [APP-042] but for convenience a summary for each plot has been detailed below.

18/6a, page 655 of SoR [APP-042]

As shown on sheet 18 of the Construction Phase Plans Part 2 [AS-019] the temporary land take is required for temporary soil storage for material that would be temporarily excavated for the construction of the proposed mainline until it is reinstated as landscaping at the end of the proposed scheme. This temporary land is also required for a laydown area which would be used for the storage of construction materials for Potts Green Bridge.

18/6d, page 655 of SoR [APP-042]

As shown on sheet 18 of the Construction Phase Plans Part 2 [AS-019] the temporary land take is required for temporary soil storage for material that would be temporarily excavated for the construction of the proposed mainline until it is reinstated as landscaping at the end of the proposed scheme.

18/6e, page 655 of SoR [APP-042]

The temporary land is required to provide working room for construction of proposed drainage infrastructure shown as Work No. 101 on sheet 18 of the Permanent Works Plans [AS-026].

18/6i, page 655 of SoR [APP-042]

The temporary land is required for access to facilitate the access for the construction of Potts Green Bridge and associated footpath works as shown as Work No. 100 on sheet 18 of the Permanent Works Plans [AS-026].

18/8a, page 655 of SoR [APP-042]

The temporary land is required for access to facilitate the access for the construction of Potts Green Bridge and associated footpaths as shown as Work No. 100 on sheet 18 of the Permanent Works Plans [AS-026].

18/18b page 656 of SoR [APP-042]

The temporary land is required for a temporary satellite compound shown as Work No. T52 on sheet 18 of the Temporary Works

Plans [AS-004]. This compound would service the works in the vicinity of junction 25, one of the reasons the satellite compound is required is detailed within paragraph 5.7.3 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003]. The satellite compounds have been identified to supplement the main compounds and to prevent large numbers of staff having to commute along the proposed scheme to get to their work site and to and from amenities.

The Applicant would undertake pre and post condition surveys of all plots and would reinstate any temporary land taken to a similar standard to that which the land was in before it was taken. Any identified damage caused by the works would be rectified before the land is handed back to the Interested Party.

**REP2-129-006**

### **Sub-Question**

4. Amendments to the Scheme and Accommodation Works In order to protect the ongoing commercial and agricultural operations and to enable future development on the retained land, amendments to the scheme are necessary. These are shown on the attached plan prepared by our transport consultants. • Plot 18/18a - Construction of a 40m ICD roundabout and 13.75 corridor to provide access to the retained land south of plot 18/18b. • Plot 18/7a – Provision of two Left-in/Left-out Accesses from the A12 carriageway to the retained land at plot 18/7a • Plot 17/7a – Construction of overbridge across new A12, two 35m ICD roundabouts including linking access road and a 13.75m access corridor through plot 18/6b to provide access to retained land to the east of plot 18/6b. • Plot 18/6b – Reconfiguration of ecological provision to allow the construction of the above access corridor. We would welcome the opportunity to discuss the above matters with National Highways and its consultants at the earliest opportunity.

### **Applicant's Response**

The Applicant has carefully considered the land take required for permanent and temporary acquisition to construct the proposed scheme. Access to the Interested Party's land impacted by the works is maintained as shown on the Streets, Rights of Way and Access Plans, Part 2 [AS-028]. This is to a standard suitable for existing use of the land.

## Witham Town Council

REP2-130-001

### Sub-Question

The Town Council, as owner of the River Walk and Whetmead Nature Reserve, has been in conversation with National Highways regarding the impact of the A12 widening scheme on its property and, in the wider context, the town as a whole.

The Town Council registered as an interested party in 2022 under reference 20033063 and made the following comments –

Loss of land at Whetmead Nature Reserve  Proposed replacement land is inadequate as a Nature Reserve  Understanding that agricultural traffic will not be permitted on the A12 and the implications this will have on Witham town centre traffic  Overall traffic issues for Witham during the course of construction  Problems with noise  Loss of mature trees and shrubs  Loss of access to nature reserve during construction  Whetmead was used as a translocation zone.

### Applicant's Response

National Highways provided a response to the representations made above by Witham Town Council for the Deadline 1 submission. The Applicant's response can be found in National Highways Deadline 1 Submission - Applicant's Response to Relevant Representations RR-084-003 - Rev 2 [REP1-002].

The Applicant acknowledges that the existing vegetation that currently screens the A12 would be lost to accommodate the widening of the proposed scheme as shown on the Retained and Removed Vegetation Plans Sheets 8 and Sheet 9 [APP-035]. Mitigation planting would be provided on and adjacent to the proposed embankment as shown on the Environmental Master Plan Part 1, Sheet 8 and Part 2, Sheet 9 [APP-086 and APP-087].

The Applicant notes the concern regarding the prohibition of slow-moving vehicles from A12 and effect on Witham. The Applicant is working collaboratively with Interested Parties to understand the number and type of vehicles that will use the diversion route such that the Applicant can assess the diversion route's suitability.

REP2-130-002

### Sub-Question

This 11.4 hectare site was formerly the town tip and on decommissioning Essex County Council returned the site in 1976 to Braintree District Council as open space and in 1981 it was formally designated as a Local Nature Reserve. It was transferred to Witham Town Council's ownership in 2005.

The Nature Reserve lies within the Blackwater Valley is situated at the confluence of the River Blackwater and River Brain and is accessed from Blackwater Lane under the existing A12. During periods of heavy rain the large quantity of water flowing into the River Brain causes the underpass to flood. The Nature Reserve is subject to an Essex Ecology Services Limited Management Plan 2015 - 2024. Within the Nature Reserve there is a large lagoon within the ownership of Anglian Water which is remnant of a former water treatment works. This lagoon holds shallow water in the winter months but tends to dry out during the summer. Although next to the A12 the noise and pollution is buffered by shrub land and trees. It is a quiet and remote area of open space where wildlife can be observed and supports the Living Landscapes initiative of embracing characteristic landscapes and the wildlife they support. Whetmead is used mainly by dog walkers.

To allow for widening of the A12, a strip of the Whetmead Nature Reserve, approximately 4,344 square metres of grassland, unnamed track, trees and shrubbery will be lost. Reference 8/47a in the Book of Reference and land parcel 9/11a refers.

Whetmead benefits from this wooded area which cuts back noise and pollution from the A12, with the removal of this buffer the peace and quiet of the reserve would be lost. The boundary treatment is a great concern to the Town Council. There is a need to ensure that there is no loss of amenity with the removal of mature trees and shrubbery. The Town Council has a green/climate change agenda and is disappointed that this vegetation would be lost.

### Applicant's Response

The Applicant acknowledges the history of Whetmead Local Nature Reserve (LNR). Chapter 10: Geology and Soils of the Environmental Statement [APP-077] identifies the site's use as former landfill and this has been taken into account within the

assessment of effects.

Flooding and flood risk is assessed within Chapter 14: Road Drainage and the Water Environment of the Environmental Statement [APP-081]. The proposed scheme would have a negligible impact at this location.

The Applicant acknowledges the management plan for the LNR which was kindly provided by Witham Town Council during one of the meetings with the Applicant. The contents of the management plan were taken into consideration when determining how best to mitigate for impacts of the proposed scheme. For example, pages 9 and 10 of the management plan state that the nutrient poor substrate will severely limit the growth of any desired tree/shrub cover and that a small area of planted trees on the landfill have died because of the adverse soil conditions. Therefore, the Applicant sought other methods to mitigate vegetation loss occurring within Whetmead LNR.

The Applicant notes the presence of the large lagoon owned by Anglian Water.

It is acknowledged that the existing tree belt can reduce the noise and pollution of Whetmead LNR from traffic on the A12. Although construction of the proposed scheme would require removal of the tree belt within Whetmead LNR, this effect would be temporary as a new belt of woodland planting comprising trees and shrubs would be planted along the boundary as shown on Sheet 8 of 21 of the Environmental Masterplan, part 1 [APP-086]. Due to the proximity to the A12, there are some areas of Whetmead LNR that are currently exposed to high levels of noise. Post-construction, there would be a widespread reduction in noise throughout the LNR/LWS due to the provision of a road surface with enhanced noise reducing properties. This predicted reduction in noise is shown on Sheet 5 of 11 of Figure 12.8 of the Environmental Statement [APP-235].

The effects of air pollution during construction and operation of the proposed scheme were assessed within Appendix 9.15: Assessment of air quality effects on ecological receptors [APP-139] and are summarised within Chapter 9 of the Environmental Statement [APP-076]. As per paragraph 9.9.10 in Chapter 9 [APP-076], the air quality assessment has shown that Whetmead LNR would not experience any potentially significant effects during construction as modelled transects do not exceed the 1% critical load or the 0.4kg N/ha/yr criteria outlined in DMRB LA 105 (see also Chapter 6: Air quality [APP-073]). However, as per paragraphs 9.11.273 to 9.11.276 of Chapter 9: Biodiversity [APP-076], the Applicant acknowledges the increased nitrogen deposition during operation over 46% of the LNR which could lead to temporary effects on the site (the impact is predicted to persist for 10 years). The Applicant would offset these effects through creation of habitats to the south of the River Brain. With mitigation, the residual

significance of effect is assessed as slight adverse (not significant). This mitigation is secured through commitment BI13 of the Register of Environmental Actions and Commitments (REAC) within the first iteration Environmental Management Plan [APP-185].

Following construction of the proposed scheme, the existing LNR would continue to function for both wildlife and the local community. Vegetation would be retained where practicable along the western boundary with the A12 (in line with commitment LV4 in the REAC [APP-185]). With respect to noise, please refer to the information provided in the Applicant's response to REP2-130-005.

The Applicant acknowledges that there would be loss of vegetation as a result of construction of the proposed scheme, including woodland from Whetmead LNR. However, impacts to Whetmead LNR would be mitigated through replacement habitat planting to the south of the River Brain which would include 0.8ha of woodland planting provided within an existing gap along the western boundary of the plot immediately to the west of the ecological mitigation area, where it provides the benefit of visual screening of the widened A12, and 0.1ha of wet woodland would be planted around the attenuation pond in this area (as shown on Figure 2.1 Environmental Masterplan, Part 1, Sheet 8 of 21 [APP-086]). Across the wider scheme the habitat creation would provide a gain in 42.52ha of woodland and 26.34km of hedgerows.

Appendix 8.3: Visual effects schedule, of the Environmental Statement [APP-121] assesses visual effects from Whetmead LNR at representative viewpoint 9 (representative view west from Whetmead Local Nature Reserve). The assessment concludes that there would be significant adverse visual effects during construction due to open views of construction activity. The assessment also concludes that there would be significant adverse visual effects during operation year 1 because loss of vegetation east of the existing A12 would open up views of the highway corridor. However, the assessment concludes that during operation in year 15, visual effects would not be significant because mitigation woodland planting of trees and shrubs would have established to reinstate screening along the widened A12 corridor and to reinstate the character of the view, although the widened Brain Bridge and traffic along it would remain discernible.

The impact of changes in land use and forestry as a result of the proposed scheme on greenhouse gas (GHG) emissions has been assessed within Chapter 15: Climate [APP-082]. While the construction of the proposed scheme is estimated to result in an increase in GHG emissions during the construction phase because of the removal or vegetation and soil disturbance (as shown in Table 15.21 of Chapter 15: Climate [APP-082]), once operational, this increase in GHG emissions is estimated to be largely

negated by increased carbon sequestration over the longer term as a result of the increase in the area of woodland with the proposed scheme (as shown in Table 15.22 of Chapter 15: Climate [APP-082]).

**REP2-130-003**

### **Sub-Question**

National Highways has proposed replacement land in two parcels, one adjacent to Whetmead, the other a distance from it reference 9/1a and 9/1h.

Town Council representatives, in conjunction with National Highways, made a site visit to both parcels of land.

The first parcel of land adjacent to Whetmead Nature Reserve is a wooded area with open glades which would be suitable for picnic benches, bug hotels and for educational use. There is no vehicular access on the site at present and the Town Council would wish this to remain. The land is very open to the A12 and adequate fencing and screening would be required.

The second small piece of land is a distance from the nature reserve and isolated from it. Foot access is via Coleman's Fishery and up a steep incline. Vehicular access to this area would need to be via Whetmead and the Town Council would not want to encourage motorised vehicles onto the site and as explained earlier in the report has decided that access to the first piece of land would be only on foot. This second parcel of land is heavily wooded and would be a drain on the public purse to maintain. The Town Council has therefore resolved not to accept as replacement land as it is not open space and will therefore consider seeking financial compensation.

### **Applicant's Response**

The Applicant has for each parcel of replacement land identified land it believes is no less advantageous than the open space land being taken and which can provide land of no less area and capable of being subject to the same rights trusts and incidents as the land being taken for the scheme. The Applicant believes plot 9/1h fulfils the criteria set out on section 132 of the 2008 Planning Act and therefore cannot justify seeking powers to secure additional land.



However, due to the nature of the existing and proposed land use and physical constraints in the area, it will not always be possible to identify replacement land either abutting or in the immediate vicinity of the open space lost to the proposed scheme.

The Applicant maintains that Plot 9/1h is suitable for the purposes of replacement land in that:

- It is existing woodland alongside the A12 that would be replacing existing woodland alongside the A12
- The area of replacement land, in conjunction with Plot 9/1a exceeds the total area of open space owned by Witham Town Council lost to the proposed scheme
- Access to the land for the public would be both via the existing footpath 121\_103 and via the proposed new footpath from 9/1 to 10/27 shown on sheets 9 and 10 of the Streets and Rights of Way and Access Plans [AS-028]
- It is no less advantageous as:
  - access has been provided to plot 9/1h via the Private Means of Access included for that purpose (9/1b) as shown on the Streets, Rights of Way and Access Plans [AS-028]
  - Landscaping and paths of suitable gradient could be created within the plot before it is passed to the Interested party to aid accessibility from Footpath 121\_103
  - There are no additional rights, trusts or incidents that would have to be imposed over the replacement land

However, to alleviate the stated concerns, a further Private Means of Access could be provided over land proposed to be retained by National Highways in Plot 9/1b immediately adjacent to Plot 9/1a. This would enable a discreet and secure vehicular route to Plot 9/1h from the existing Whetmead Nature Reserve to be created. The Applicant has scheduled a meeting with the Interested Party to discuss the access to plot 9/1b.

The Applicant confirms that a suitable fence will be provided to provide visual screening to the replacement land at the top of the highway embankment.

Additionally, the Applicant remains in discussions with the Interested Party over these matters and is actively aiming to see if an alternative plot of land that may serve as replacement land can be identified.

REP2-130-004

**Sub-Question**

A scheme has been mooted to create a route along the side of the A12 from Whetmead to Little Braxted Lane, part of a longer walk/cyclepath from Gershwin Boulevard to the Industrial Estates. The value of the proposal has been questioned unless this route can be linked to existing networks along the River Walk or Blackwater Rail Trail. There would be a need to ensure that the route is adequately fenced and screened from the A12 and that the road surface would be such as to lessen traffic noise.

**Applicant's Response**

In addition to considering the requirements of the National Policy Statement National Networks to improve accessibility, reduce historical severance of the footpath network and provide replacement land, the Applicant has endeavoured to provide a series of interventions that could enable future opportunities, by others, outside of the DCO which cannot be realised at this time.

The DCO proposal provides land, bridges, new rights of way and open space to facilitate a connected route from the north of the A12, via the Gershwin Boulevard bridge, along the south of the A12 to the Little Braxted Bridge then over to the Eastways Industrial Estate on the north of the A12.

In particular, in identifying replacement land the Applicant has tried to include replacement land for the benefit of Braintree District Council, Essex County Council and Witham Town Council that can in the future be linked. Completing the linkage within the DCO would require the imposition of additional rights over land and/or additional compulsory acquisition that cannot be justified for the purposes of the Proposed Scheme. The parcels of land connect directly to the Blackwater Rail Trail, and via a diverted stretch of footpath to the River Walk. This opportunity can be best seen on the Special Category Land Plans [APP-015] and Environmental Masterplan - Part 1, sheet 8 [APP-086] and Environmental Masterplan Part 2, sheet 9 [APP-087].

The Environmental Masterplans also show that enhanced low noise surfacing would be used between and beyond the Gershwin Boulevard and Little Braxted bridges. Fencing is a matter for detailed design.

<b>REP2-130-005</b>
<b>Sub-Question</b>
The Town Council has therefore asked that both north and south bound carriageways of the A12 be surfaced so as to minimise traffic noise. This would be particularly important near Market Lane which is close to the existing A12.
<b>Applicant's Response</b>
The Applicant is intending to resurface both carriageways of the A12 alongside Market Lane and Whetmead Nature Reserve. This surfacing is mitigation measure AMS3 and is described within paragraph 12.10.17 of Chapter 12: Noise and vibration, of the Environmental Statement [APP-079]. The extent of the proposed surfacing is shown on Figure 12.4 of the Environmental Statement [APP-231]. This figure shows that the surfacing is proposed on both carriageways of the entire Witham bypass. This resurfacing is secured by commitment NV10 within the first iteration Environmental Management Plan - Appendix A: Register of Environmental Actions and Commitments, of the Environmental Statement [APP-185].
<b>REP2-130-006</b>
<b>Sub-Question</b>
During construction of the A12 public amenity of the nature reserve will be lost whilst embankments are constructed by the entrance to Whetmead although access by Town Council staff for maintenance purposes would be possible.
<b>Applicant's Response</b>
Access to the nature reserve for the public would need to be temporarily suspended during the proposed widening of Brain Bridge, as stated in paragraph 8.1.5 of the Outline Construction Management Plan (OCTMP) [REP2-003], which states 'The construction

works will be programmed to ensure that restricting access and egress from the nature reserve via Blackwater Lane is minimised, however closure periods would be for approximately three months at a time, up to approximately twelve months’.

The Applicant has previously responded to this in RR-084-007 which can be found in Deadline 1 Submission - Applicant's Response to Relevant Representations - Rev 2 [REP1-002]. However, for convenience this has been summarised below.

Access would be provided for maintenance to Whetmead nature reserve, this would most likely be via Blue Mills Hill. As shown on the Temporary Works Plan [AS-004] Sheet 8 of 21. The haul roads shown as work number T23 and T26 would be the most likely access route to be used, subject to further engagement with the Interested Party.

**REP2-130-007**

### **Sub-Question**

Whetmead has been used in the past as a translocation zone for reptiles and other wild life. Care must be taken to ensure that the wildlife or habitat is not endangered.

### **Applicant’s Response**

The Applicant acknowledges the presence of reptiles within Whetmead Local Nature Reserve and the surrounding area. Mitigation proposals include the creation of an ecological mitigation area south of the River Brain (as shown on Figure 2.1 Environmental Masterplan (Part 1, Sheet 8) [APP-086]), which would most likely be the receptor site for any reptiles captured from the construction footprint from within Whetmead Local Nature Reserve.

The Applicant would welcome discussions with the Interested Party regarding the creation of ecological and other environmental enhancements where appropriate by agreement within the existing nature reserve, such as hibernacula and log piles to increase carrying capacity for reptiles.

The Applicant welcomes any further detail which is available about the ‘other wildlife’ which has been translocated to the site. This would most likely be amphibians and potentially small mammals which the Applicant would translocate to the ecological mitigation

to the south of the River Brain when undertaking reptile translocations in order to prevent killing or injury of these other animals during construction.

Other measures included in the Register of Environmental Actions and Commitments (REAC) within the first iteration Environmental Management Plan [APP-185] would also ensure wildlife and habitat is not endangered, specifically:

- - BI1 – An Ecological Clerk of Works (ECoW) would be available during the phase of site clearance to assess and advise on retention of habitats. The ECoW would assess each area prior to clearance commencing and would advise whether full ECoW supervision is required for the work. If full ECoW supervision is not required, the ECoW would ‘sign off’ clearance of that particular area.
- - BI2 - Exclusion zones would be marked where appropriate around protected habitat areas such as trees, woodlands, hedgerows and watercourses to avoid accidental damage in accordance with the Retained and Removed Vegetation Plans [APP-035]. Marking of protected areas would be based on proximity and risk of encroachment, and based on these factors, markings may include physical barriers or signage.
- - BI3 - Exclusion zones would be marked around Brockwell Meadows Local Wildlife Site (LWS) which is adjacent to the Order Limits, and around retained parts of Whetmead Local Nature Reserve (LNR)/LWS and Riverview Meadows LWS in accordance with the Retained and Removed Vegetation Plans [APP-035].
- - BI6 - Creation of features which could attract wildlife into works areas would be avoided where practicable. This may include the maintenance of habitat in an unsuitable condition for species (to discourage species from using such areas). Where appropriate, the construction site boundary would be designed to discourage wildlife entering the site.
- - BI8 - Where practicable, trenches, trial pits and excavations would be covered overnight or fenced off in order to prevent animals falling in and becoming trapped within excavations. Where excavations could not be fenced, closed or filled on a nightly basis, a means of escape would be provided.
- - BI9 - Buffer zones around sensitive features such as confirmed bat roosts, badger setts, otter holts, water vole burrows, birds’ nests and watercourses would be implemented as directed by the ECoW. Appropriate buffers would be implemented around watercourses where suitable, using physical barriers during construction works to protect

aquatic species from destruction and disturbance. Where appropriate, professional judgement would be exercised by the ECoW to amend buffer zones to accommodate works, with the option of introducing additional control measures such as a watching brief to ensure risks to habitats and wildlife are appropriately managed. Buffer zones would be suitably demarcated to prevent encroachment of works.

**REP2-130-008**

### **Sub-Question**

In addition, another area owned by the Town Council will be affected by the A12 widening. Land to the west of the River Brain, north of the A12 will be lost and likewise land to the south referenced 8/11o and q. It is understood that the National Highways propose to erect a temporary bridge over the River Brain in this area.

### **Applicant's Response**

The Applicant proposes to install a temporary bridge on the north side of Brain Bridge shown as Work No. T25 on sheet 8 of the Temporary Works Plans [AS-004]. The temporary bridge is required to provide access for plant and materials for the widening of Brain Bridge.

Installing the temporary bridge would reduce the number of construction vehicles using Constance Close and the Carraways to access the North East Side of the structure as access would be via Blackwater Lane and across Work No. T25 reducing the construction impacts on the residents.

The route using Constance Close and the Carraways is shown on Sheet 8 of the Outline Construction Traffic Management Plan – Appendix B: Permitted and Excluded Routes for Construction Vehicles [REP2-004], as permitted with restrictions meaning that construction traffic is permitted to use for specific activities only. This is to limit the use of these residential roads and the impact the works will have on the local road network.

Plot 8/11o is to be used temporarily and new rights to be acquired permanently for the proposed water main diversion as shown as

Work No. U65 on sheet 8 of 21 of the Utility Diversions [AS-003].

Plot 8/11q is required permanently for the extension of Brain Bridge to the north and is shown as pink land on Sheet 8 of 21 of the Land Plans Rev 2 [AS-009].

For further detail of the requirement for this plot, refer to the Statement of Reasons [APP-042].

**REP2-130-009**

### **Sub-Question**

A site adjacent to Whetmead is going to be used as an ecological mitigation area and during construction prior to work starting on the A12 access will be required over Town Council land. Representations have been made to ensure that access to Whetmead is maintained at all times and that mud/debris on the access is removed as necessary.

### **Applicant's Response**

The Applicant would maintain access to Whetmead Nature Reserve while the advanced ecological works are being carried out. As stated in the Construction Traffic Management Plan (CTMP) for the advanced works planning application, paragraph 1.9.2, while construction traffic is accessing the works area right of way would be given to pedestrians using Public Right of Way 101 to access the nature reserve. The CTMP also details in paragraph 1.11.2 that prior to leaving the ecological mitigation, all plant/equipment would be checked by the supervisor to ensure their cleanliness. For further information on mitigation measures to control dust and debris, please see section 1.11 of the CTMP.

The CTMP can be found on the Braintree planning website using the reference number 22/03156/FUL.

**REP2-130-010**

### **Sub-Question**

### Witham's River Walk

By Maldon Road, part of the River Walk by the River Brain will be temporarily required for relocation of the gas main. This land is incorrectly shown as being owned by Braintree District Council numbered 8/11h and i.

### Applicant's Response

Ongoing engagement has taken place between the Applicant and Interested Party since submission of the DCO Application, which has confirmed that Witham Town Council have exercised a right to acquire the freehold of these plots as well as others, originally leased from Braintree District Council. Recently, the land in question has been listed at Land Registry as 'pending transfer of part' but the transfer remains outstanding to date. At this time the land remains registered to Braintree District Council as freeholder, however the Applicant has requested, and Witham Town Council subsequently provided, a copy of the Transfer documentation (TR5). This has allowed the Applicant to identify all plots of land within the Order impacted by the change of ownership. These are plots 8/11h, 8/11i, 8/11o, 8/11q, 8/11t, 8/11x, 8/11y, 8/11z, 8/11aa, 8/11ab, 8/11ac, 8/11ad, 8/11af, 8/11ah and 8/11ai on the Land Plans [AS-009].

The Applicant acknowledges the application version of the Book of Reference [APP-044] lists the freehold of these plots as belonging to Braintree District Council, however, at the time of submission this information was not available on Land Registry and the Applicant had not been made aware of this change by the Interest Parties. The evidence recently provided by the Interested Party is sufficient to update records of known ownership across the proposed scheme and therefore will be used to update the Land Plans and Book of Reference, next due to be submitted at Deadline 4. The Applicant is also continuing to monitor the Land Registry for any changes to ownership and will undertake a refresh of all landowner data / titles ahead of the Deadline 4 submission.

**REP2-130-011**

### Sub-Question

Agricultural Vehicles



The National Highways have stated that agricultural vehicles will no longer be able to use the A12. At certain times of the year there are a number of large agricultural vehicles which already use the town centre, once the widened A12 has been constructed this number will increase. The town centre is a conservation area with narrow pavements and 14th century medieval houses with overhangs, which would be in danger. A site visit has proven that there is no alternative route round the town. It would be hoped that agreement could be reached with farmers to ensure that movement of these large vehicles would not be during peak times.

### **Applicant's Response**

The Applicant is working collaboratively with Interested Parties to understand the number and type of vehicles that will use the diversion route such that the Applicant can assess the diversion route's suitability.

**REP2-130-012**

### **Sub-Question**

Traffic Issues during construction

The Town Council is concerned how the traffic in Witham will be affected during the construction period. When traffic is slow on the A12 motorists will use the B1389 through the town centre causing severe congestion. It is hoped that the National Highways will ensure that A12 closures will be kept to a minimum so that delays and congestion in the town centre, and beyond, do not occur.

### **Applicant's Response**

The Applicant notes the comments raised by the Interested Party and has detailed the following mitigation measures below, to reduce impacts on the town of Witham.

The Interested Party would be a proposed attendee at the Local Area Traffic Management Forum as detailed in Table 3.1 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003].

The traffic management philosophy of the proposed scheme, as set out in Section 1.1 of the OCTMP [REP2-003], is to minimise

disruption to all road users, business and communities. This is delivered through developing traffic management designs based on strategies to keep as much traffic as is practical on the existing A12, to avoid the desire for road users to divert onto local roads such as through Witham, and through proactive communication with local authorities, communities and wider road user groups. This is secured through the OCTMP, which is secured through Requirement 9 of the dDCO [AS-020], sets strategies including:

- Maintaining a minimum of two lanes of traffic in each direction throughout the length of the A12 affected by traffic management during weekday daytime, thereby reducing the desire for vehicles to divert onto local roads and minimising disruption for local communities.
- Coordinating the works so as to, where reasonably practical, maximise the works that are carried out within lane, carriageway and total closures, thereby reducing the numbers of closures required.

Further to this, the proposed scheme has the following mitigation measures to minimise the traffic impacts on the town of Witham. Strategic diversion route A would be in place for the proposed scheme for any closures of the A12 mainline. For further details please refer to section 4.3 of the OCTMP [REP2-003]. This would not have A12 traffic diverting through Witham, but instead using the strategic diversion route from junction 19 to junction 25.

Information on permitted, permitted with restrictions and excluded routes for construction vehicles can be found in section 7 of the OCTMP [REP2-003]. Plans of these routes can be found in the OCTMP – Appendix B: Permitted and Excluded Routes for Construction Vehicles (plans) [REP2-004]. Sheets 7, 8 and 9 of these plans show that construction HGVs would not be permitted through the centre of Witham.

## Woodland Trust

REP2-131-001

### Sub-Question

Objection – direct loss of veteran trees As the UK's leading woodland conservation charity, the Woodland Trust aims to protect native woods, trees and their wildlife for the future. We own over 1,000 sites across the UK, covering over 30,000 hectares and we have over 500,000 members and supporters. We are an evidence-led organisation, using existing policy and our conservation and

planning expertise to assess the impacts of development on ancient woodland and ancient and veteran trees. Planning responses submitted by the Trust are based on a review of the information provided as part of the consultation.

### **Applicant's Response**

The Applicant notes the Woodland Trust's objection to the direct loss of veteran trees. Please see the response provided below.

**REP2-131-002**

### **Sub-Question**

Impact to ancient woodland and veteran trees The Trust strongly objects to the proposed scheme due to the loss of up to five veteran trees identified as T236, T316, T367, T452 and T542 respectively within the Arboriculture Impact Assessment [ref: APP-122]. We also hold concerns regarding likely impacts to another ten veteran trees/tree groups from their proximity to the works proposed, as well as detrimental impact to a number of ancient woods and trees from nitrogen deposition

### **Applicant's Response**

There would be no loss of verified veteran trees, as identified on the Woodland Trust's Ancient Woodland Inventory, due to construction of the proposed scheme, but five potential veteran trees (i.e. trees not listed on the Ancient Woodland Inventory but of sufficient quality to be considered veteran status, as identified from the scheme arboriculture survey) within the footprint of the proposed scheme would be unavoidably felled during construction.

The National Policy Statement for National Networks (NPSNN) states in paragraph 5.2.3 that 'the Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss'. In accordance with this policy, the reasons why the loss of up to five potential veteran trees is unavoidable is as follows (as stated in Table 3.4 of Environmental Statement Chapter 3: Assessment of

alternatives [APP-070]):

- An oak tree south of the A12 and south-west of Witham to accommodate earthworks where the A12 is widened online. Moving the mainline to avoid loss of this tree is constrained by the geometry of the existing junction 21 and existing and proposed development to the north of the A12. This tree (T236) is shown on sheet 7 of the Retained and Removed Vegetation Plans, Part 1 [APP-035].
- An oak tree east of Witham to accommodate a haul road adjacent to the A12 southbound carriageway. Opportunities to move the haul road are limited due to the floodplain of the River Blackwater. This tree (T316) is shown on sheet 9 of the Retained and Removed Vegetation Plans, Part 1 [APP-035].
- A willow tree at junction 22 is lost beneath the footprint of the junction. Opportunities to move the junction are constrained by its scale and geometry and the need to minimise effects on Coleman's Farm Quarry. This tree (T367) is shown on sheet 10 of the Retained and Removed Vegetation Plans, Part 1 [APP-035].
- A willow tree north-east of Rivenhall End and north of the proposed offline bypass between junction 22 and junction 23 to accommodate the new road. Moving the mainline closer to the existing A12 to avoid this tree would have potential impacts on other environmental constraints including 3 No. potential veteran trees in the verge by Essex County Fire and Rescue Service Headquarters and the grade II\* listed building at Hole Farm. This tree (T452) is shown on sheet 12 of the Retained and Removed Vegetation Plans, Part 2 [AS-017].
- An oak tree south of junction 24 to accommodate the new junction and the earthworks around the southern roundabout. This tree is at risk of removal, but opportunities to retain it may be presented at detailed design, as per REAC commitment LV4. This tree (T542) is shown on sheet 14 of the Retained and Removed Vegetation Plans, Part 2 [AS-017].

The need for the proposed scheme and the planning balance and conclusions are presented within Sections 2 and 9 of the Case for the Scheme [APP-249].

Construction and operation impacts to ancient woodland and veteran trees are detailed within Section 9.11 of Chapter 9: Biodiversity, of the Environmental Statement [APP-076]. Where practicable, the design of the proposed scheme was refined to avoid impacts (see Chapter 3: Assessment of alternatives [APP-070]). For example, the horizontal alignment of the A12 mainline between junction 24 and junction 25

was improved to reduce the area of land between the new and existing A12. The new alignment also avoids a registered veteran tree to the south of Easthorpe Road. Required works to a farm access track in this area have also been redesigned to position the track away from the veteran tree and outside the root protection area.

In addition, alternative options such as the bypass link road proposed by some residents of the Inworth community were discounted partly due to adverse environmental effects including the loss of potential veteran trees (see Table 3.4 on pages 21 and 22 of Chapter 3: Assessment of alternatives [APP-070]).

The Applicant acknowledges that loss of potential veteran trees cannot be mitigated due to the time period over which a veteran tree matures. As per paragraph 9.10.38 of Chapter 9: Biodiversity [APP-076], measures to compensate for the loss of the five potential veteran trees (as committed by B117 in the Register of Environmental Actions and Commitments, within the first iteration Environmental Management Plan [APP-185]) would be in accordance with the latest guidance from Natural England and the Forestry Commission. The significance of effect with respect to the five potential veteran trees is assessed as slight adverse (not significant) given that 93% of all potential and verified veteran and ancient trees within 15m of the Order Limits would be retained.

In accordance with DMRB LA 106 Air Quality, the study area for nitrogen effects on ecological receptors is a 200m buffer around the affected road network (ARN). All veteran, potential veteran, ancient and potential ancient trees were scoped into the assessment if they were within the 200m buffer and conversely trees beyond this buffer were scoped out of the assessment as there would be no potential effects. Air quality modelling showed six verified veteran trees, 16 potential veteran trees and one verified ancient tree could be negatively impacted by changes in air quality as a result of operation of the proposed scheme (see paragraphs 9.11.298 to 9.11.305 of Chapter 9: Biodiversity [APP-076], and paragraph 7.2.2 of Appendix 9.15: Assessment of Air Quality Impacts on Ecology Receptors [APP-139]). However, it was assessed there would be no effect on the 'integrity' of the trees, as for veteran trees, integrity is considered with respect to the individual tree itself and not to the assemblages that it supports, such as lower plants or invertebrates. The key characteristics of a veteran tree are considered to include its age, size, structure and presence of dead and decaying wood, all of which are physical characteristics which are not likely to be affected by nitrogen

deposition.

The Applicant's response REP2-131-007 gives further detail on the five potential veterans lost and 10 trees and groups of concern.

**REP2-131-003**

### **Sub-Question**

Veteran Trees Natural England's standing advice on veteran trees states that they "can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks or other areas. They are often found outside ancient woodlands. They are also irreplaceable habitats. A veteran tree may not be very old, but it has significant decay features, such as branch death and hollowing. These features contribute to its exceptional biodiversity, cultural and heritage value." We consider that not all veteran trees are ancient, but all ancient trees are also veteran trees.

### **Applicant's Response**

The Arboriculture Impact Assessment included within Appendix 8.4 of the Environmental Statement [APP-122] was carried out in accordance with the proposed proportionate and targeted methodology presented within Appendix H of the Environmental Scoping Report (Highways England, 2020). This noted that 'Veteran and ancient trees will be recorded as such where verification of this status has been previously obtained (i.e. Ancient Tree Inventory). Trees considered as potential veteran or ancient trees (i.e. not verified or easily identifiable as such during the survey) by the surveyors will be indicated as such within the survey data although the survey methodology does not include a specific assessment for either of these status groups.'

Agreement was sought on the methodology and proportionate, targeted approach to the arboricultural assessment through consultation with local planning authorities, as described within paragraph 8.3.6 of Environmental Statement Chapter 8: Landscape and visual [APP-075].

Multiple features that are likely to meet the criteria of ancient and/or veteran tree status were inspected by the tree survey and identified within the Arboriculture Impact Assessment presented within Appendix 8.4 of the Environmental Statement [APP-122]. All

features that meet these criteria have been awarded category A grading and are recorded as potential ancient or potential veteran within the tree survey schedule (Annex E in Appendix 8.4 [APP-122]). The word 'potential' is applied to differentiate these trees from verified veteran and ancient trees as defined by the Woodland Trust, however, for the purposes of the Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP), to be produced at detailed design as per REAC commitment LV6, they will be treated as veteran trees and protected and managed as per the guidance of the Ancient Tree Forum and Woodland Trust. Information within the Arboriculture Impact Assessment relating to ancient and veteran trees would be used to inform the AMS and TPP that would be prepared during the detailed design phase.

**REP2-131-004**

### **Sub-Question**

Ancient Woodland Natural England and the Forestry Commission, the Government's respective bodies for the natural environment and protecting, expanding and promoting the sustainable management of woodlands, define ancient woodland as follows within their standing advice<sup>1</sup> : "Ancient woodland takes hundreds of years to establish and is defined as an irreplaceable habitat. It is a valuable natural asset important for: wildlife (which include rare and threatened species); soils; carbon capture and storage; contributing to the seed bank and genetic diversity; recreation, health and wellbeing; cultural, historical and landscape value. It has been wooded continuously since at least 1600AD. It includes: • Ancient semi-natural woodland [ASNW] mainly made up of trees and shrubs native to the site, usually arising from natural regeneration. • Plantations on ancient woodland sites – [PAWS] replanted with conifer or broadleaved trees that retain ancient woodland features, such as undisturbed soil, ground flora and fungi

### **Applicant's Response**

The Applicant takes into consideration woodland that is continuously wooded since at least 1600 AD, identifying these habitats using the Ancient Woodland Inventory (Natural England, 2021). Paragraph 9.8.31 of Environmental Statement Chapter 9: Biodiversity [APP-076] makes specific reference to the definition of ancient woodland. In addition, areas of woodland not recorded on the Ancient Woodland Inventory, but with characteristics of old established woodlands, were identified during field surveys and

mapped as potentially ancient woodland.

REP2-131-005

### Sub-Question

Planning Policy The National Policy Statement for National Networks (NPSNN) Paragraph 5.32 states: “Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss. Aged or veteran trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this.” The National Planning Policy Framework, paragraph 180, states: “When determining planning applications, local planning authorities should apply the following principles: c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>63</sup> and a suitable compensation strategy exists;” Further to this, paragraph 174 of the NPPF states the following: “Planning policies and decisions should contribute to and enhance the natural and local environment by: minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”. Where an application involves the loss of irreplaceable habitats, such as veteran trees, net gain for biodiversity cannot be achieved. Highways England’s (now National Highways) Biodiversity Action Plan (2015) outlines key environmental goals for minimising environmental impact: “Biodiversity is entrenched within the Government’s Road Investment Strategy and Highways England’s Strategic Business Plan. In particular, the Road Investment Strategy states that by 2020, the company must deliver no net loss of biodiversity and that by 2040 it must deliver a net gain in biodiversity.” As such, by putting forward a proposal of this nature, National Highways is in direct contravention of its own biodiversity policies.



## Applicant's Response

The Applicant acknowledges the irreplaceable nature of ancient woodland and veteran trees and that their loss can only be partially compensated (Paragraph 9.10.38 of Environmental Statement Chapter 9: Biodiversity [APP-076]). The compensation proposed is set out in BI16 and BI17 in the Register of Environmental Actions and Commitments (REAC), within the first iteration Environmental Management Plan [APP-185] and is in line the latest guidance from Natural England and the Forestry Commission (2022).

Paragraph 3.6.30 of Appendix 9.14: Biodiversity Net Gain report [APP-138] acknowledges that the five 'potential' veteran trees which would be lost as part of the development proposals are considered irreplaceable and that Biodiversity Net Gain should not be claimed in respect of compensation that is provided for the loss of irreplaceable habitat. Therefore, the compensation measures in Chapter 9: Biodiversity [APP-076] and in the REAC [APP-185] have not been included in calculating biodiversity net gain for the proposed scheme.

National Highway's policy requires that it must deliver no net loss of biodiversity and that by 2040 it must deliver a net gain in biodiversity. The Biodiversity Net Gain report [APP-138] identifies that the proposed scheme will deliver a 25.01% gain of habitat, 36.06% gain of hedgerows and 156.73% gain of rivers (as presented in Table 9.32 of Chapter 9 Biodiversity [APP-076]). As such, National Highways is fully compliant with the policies in the Biodiversity Action Plan.

**REP2-131-006**

## Sub-Question

Reducing Carbon Emissions A number of important developments in UK climate change policy have occurred in recent times. Meeting the recently adopted target of net zero carbon by 2050 represents a major policy challenge of which transport is a central component. The UK Committee on Climate Change (CCC) reports that transport emissions increased by 6% between 2013 and 2019 and were 4% higher than in 1990. Road transport accounts for 91% of the UK's domestic surface transport emissions. Although vehicles have become more fuel efficient, this has been offset by increasing travel demand. To overcome such trends, the CCC Net Zero report highlighted the need for new policy frameworks to be developed. The Department for Transport acted on this

recommendation, publishing a Green Paper, 'Decarbonising transport - setting the challenge', in March 2020. This includes recognition that "We will use our cars less and be able to rely on a convenient, cost-effective and coherent public transport network." The Government has further committed to tackling the issue by the publication of 'Decarbonising Transport - A Better, Greener Britain' in July 2021. A successful strategy to reduce transport's carbon emissions must include measures to manage road travel demand, not accommodate its growth, and we would challenge whether the A12 Chelmsford to A120 Widening Scheme is consistent with this approach. Any decision regarding the A12 Chelmsford to A120 Widening Scheme must be consistent with the UK's international commitments regarding carbon emissions. The court decision concerning plans for a third runway at Heathrow highlighted the need for consistency in the Government's legal objectives regarding emissions cuts and major infrastructure development proposals which are predicated on increasing transport movements. While the court decision was overturned, the Government must lead the way in cutting emissions if the UK is to remain credible at climate negotiations.

### **Applicant's Response**

National Highways' approach to assessment is in line with the National Policy Statement National Networks(NPSNN), paragraph 5.17 which states that applicants should provide evidence of the carbon impact of the project and an assessment against the UK Government's carbon budgets. While noting that 'it is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet the targets of its carbon reduction plan targets', paragraph 5.18 of the NPSNN goes on to state that 'any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets'.

As set out in paragraph 15.11.8 of Environmental Statement Chapter 15: Climate [APP-082], the assessment makes a comparison with national carbon budgets and shows that the construction of the proposed scheme is estimated to contribute approximately 0.022% of the fourth carbon budget. Operation of the proposed scheme is estimated to contribute approximately 0.002% of the fourth carbon budget, 0.009% of the fifth carbon budget and 0.015% of the sixth carbon budget. It is considered that this magnitude of emissions from the proposed scheme would not have a material impact on the ability of the UK Government to meet its carbon budgets, and therefore is not anticipated to give rise to a significant effect on climate, in line with the position set out within paragraph 5.18 of the NPSNN. As the UK Government has adopted the carbon budgets on a trajectory towards net zero by 2050 in

order to meet the goals of the Paris Agreement (United Nations Framework Convention on Climate Change, 2016), and the proposed scheme is considered compatible with these budgets, the proposed scheme is considered consistent with the UK's international commitments regarding carbon emissions.

Furthermore, when assessing the significance of estimated changes in greenhouse gas (GHG) emissions, the Institute of Environmental Management and Assessment (IEMA) guidance on 'Assessing Greenhouse Gas Emissions and Evaluating their Significance' (IEMA, 2022) explains:

'The crux of significance is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050.'

The proposed scheme is considered to be consistent with a trajectory towards net zero by 2050 as it would not have a material impact on the ability of the UK Government to meet its carbon budgets.

In addition, substantial reductions in road user GHG emissions are expected to occur over time, despite increases in traffic flows, as a result of the implementation of the Transport Decarbonisation Plan (TDP) (DfT, 2021) and 2030/2040/2050 Net Zero Highways Plan (National Highways, 2021). The potential impact of the TDP on road user GHG emissions is presented as a sensitivity test in Table 15.24 of Chapter 15: Climate [APP-082], although it should be noted that, whilst much lower, these estimates have not been used to inform the assessment of significance.

**REP2-131-007**

### **Sub-Question**

**Ancient and Veteran Trees** The proposed scheme will result in the loss of five trees considered 'potential veteran' trees in the Arboriculture Impact Assessment. It is essential that no veteran trees are lost as part of the development, as the loss of any such trees can have a significant impact on local wildlife, particularly those which depend on the habitat provided by veteran trees. Any loss of veteran trees can also be highly deleterious where there is a wider population of veteran trees within close proximity, which

may harbour rare and important species. In addition, T439 (Veteran Lime), T441# (Veteran Lime), T443 (Veteran Horse Chestnut), T744 (Veteran Oak) and both G489 and G595 (mixed veteran groups) will likely be subject to root encroachment from their proximity to the proposed works, and a temporary haul route will cut across G543 (an Elm and Field Maple veteran group), yet there is no information provided on the proposed impact of these works on the tree group. Equally, tree groups G518-G520 are located within the proposed borrow pit locations, but it is unclear whether any root encroachment is likely to occur as a result of the works. We would appreciate clarification on both these matters.

### **Applicant's Response**

Table 3.4 of Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070] clearly states the reasons why the loss of the five potential veteran trees is unavoidable.

Impacts to veteran trees are addressed in the response to sub-question REP2-131-002. Chapter 9: Biodiversity, of the Environmental Statement [APP-076] provides a comprehensive assessment of the potential effects on protected and notable species in accordance with the Design Manual for Road and Bridges (DMRB) LA 108 Biodiversity (Highways England, 2020). As per paragraph 9.11.62 of Chapter 9 [APP-076], and based on the assessment criteria in Table 9.8 of Chapter 9 [APP-076] from DMRB LA 108, there would be a minor adverse magnitude impact on a Nationally important receptor on the basis that there would be permanent/irreversible damage to a biodiversity resource. However, that given the loss of five trees would only account for 7% of all potential and verified veteran and ancient trees within 15m of the Order Limits, it is assessed this would not affect the integrity or characteristics of the resource. The significance of effect is therefore assessed as slight adverse, as opposed to moderate adverse. On this basis, the Applicant concludes no significant effects on veteran trees.

Due to the level of detail available at the preliminary design stage, it is not possible to make a full, detailed assessment of tree removal. Therefore, the retention category of certain trees remains 'at risk' until fixed detailed design is available. While it is often possible to retain at risk trees during detailed design, the use of the 'at risk' category allows the assessments to present a 'worst case' arboricultural impact of the scheme to the examining body. However, existing vegetation within the Order Limits including temporary works areas would be retained as far as reasonably practicable in line with commitment LV4 in the Register of Environmental Actions and Commitments (REAC) [APP-185]. Particular attention would be given to the retention of mature

vegetation including ancient, veteran and notable trees (both verified and potential).

Following the completion of detailed design, definitive tree and vegetation removal plans will be produced. The applicant is also fully committed to the production of a detailed arboricultural method statement (AMS) and tree protection plan (TPP) in line with LV6 of the REAC [APP-185], which will clearly set out how retained trees will be protected throughout the construction process including any specific veteran tree management required to protect and enhance the population in the area.

Lime trees T439 and T441 are currently located close to the west bound carriageway of the A12. Both trees were noted to be in very poor structural condition during the tree survey, with concerns around their safe retention within falling distance of the carriageway. While the importance of veteran trees is fully acknowledged and appreciated it is highly unlikely that either tree will survive in their current form for any length of time due to the significant risk they pose to users of the highway. While it may be possible to retain a part of the trees (as a low pollard) the overall form of the trees will be significantly altered. As a large part of the theoretical root protection area of the trees is located under the existing highway, it is likely that they will have either limited tree root growth in that direction or the highway would protect the roots during construction works. Current design proposals indicate a footpath being created near T439. Any construction methodology will be developed in conjunction with the project arboriculturalist to minimise any impact on T439 (if it is still in position) (as per REAC commitment LV4). Horse chestnut T443 was similarly noted to be in a poor structural condition. It is also located in such a way that its theoretical root protection area will either have been limited by the existing A12, or it will be protected by the carriageway during de-trunking works. Works in the vicinity of all the trees in this area will be subject to a detailed arboricultural method statement and tree protection plan to minimise any impact on retained trees during the construction period (as per REAC commitment LV6).

Oak tree T744 is located in a private garden on the boundary of the Order Limits. The tree is in good health and is co-existing with the current highway infrastructure in this area. Current proposals indicate that a new access point is to be created in this general area, but it stops short of the tree and there is no indication that any works will have a negative impact on this tree. Any specific tree protection methodologies, if required, will be considered in the arboricultural method statement and indicated on the tree protection plan (as per REAC commitment LV6)..

G489 appears to be located away from construction activities and is shown as retained on plans. Specific tree protection measures such as protective fencing will be described in the arboricultural method statement and indicated on the tree protection plan (as per

REAC commitment LV6).

G595 is located to the south of an existing agricultural field subjected to a range of agricultural practices. Regular ploughing and associated sub-soiling are common practice in many areas, and this often occurs close to the stems of large established trees, well within the theoretical root protection area calculated by BS5837:2012. Some sub-soilers operate at depth of up to 60 cm below the surface and regular ploughs in the region of 12-35 cm. There is little research done on the impact of such practices on tree root profile, but in many cases the trees affected appear to suffer few adverse impacts. It can be assumed that regular ploughing and sub soiling leads to a deeper rooting profile, and that the rhizosphere is much better adapted to the effects of trafficking from heavy vehicles and equipment. Field trees are generally also significantly crown lifted to allow large farm machinery to pass below them. Therefore, it is expected this group would suffer minimal, if any, impacts from the proposed works. Specific construction methodologies and protection will be presented in the arboricultural method statement and tree protection plan (as per REAC commitment LV6).

A section of G543 would need to be removed for the haul road, the remaining sections would be protected with specific methodology and protective measures as set out in the arboricultural method statement and tree protection plan (as per REAC commitment LV6).

Tree groups G518-G520 would be retained with a suitable protective buffer and any specific methodologies and protection identified in the arboricultural method statement and tree protection plan (as per REAC commitment LV6).

**REP2-131-008**

### **Sub-Question**

Impacts from Nitrogen Deposition The Trust also holds concerns regarding potential nitrogen deposition on ancient woods and trees surrounding the proposed road. Chapter 9 (Biodiversity) of the Environmental Statement outlines a likely increase in air quality impacts to two areas of ancient woodland (Perry's Wood and Porter's Grove), one ancient tree, and 22 veteran trees (9.9.22). We are of the opinion that development must be able to demonstrate that any resulting increase in the levels of nitrogen will be insignificant (<1% of the critical load) at all ancient woodland sites. The scheme may need to be amended to include further control

measures or other proposals in order to attempt to reduce the process contribution to <1%.

### **Applicant's Response**

Paragraph 9.9.22 of the Environmental Statement Chapter 9: Biodiversity [APP-076] identifies the designated site habitats within 200m of the affected road network where the modelled nitrogen (N) deposition is predicted to increase by more than 1% of the lower critical load and by more than 0.4kg N/ha/yr. In line with DMRB LA 105, these sites were investigated by a competent expert in biodiversity to determine whether the predicted increase in nitrogen deposition could result in a likely significant effect on the biodiversity of the sites.

The detailed assessment of the possible ecological effects of increased nitrogen deposition resulting from the proposed scheme is presented in Appendix 9.15: Assessment of Air Quality Impacts on Ecology Receptors [APP-139]. It is considered unlikely that there would be a perceptible change in vegetation composition at Perry's Wood, but because more than 20% of this site would be affected by increased N deposition and due to the lack of scientific data for woodland habitats, a precautionary approach was taken and it was assumed that there could be an effect on site integrity. The time taken for Do-Something NOx emissions to reduce to Do-Minimum levels was estimated at 11 years, so is temporary and any effects could be theoretically reversible.

Therefore, the impact level has been assessed as moderate adverse, resulting in a large adverse effect (significant).

The Project Air Quality Action Plan [APP-105] sets out potential mitigation measures to reduce the impact on Perry's Wood, including a vertical barrier, speed management, junction improvement and traffic management. However, it was concluded that no mitigation options would be feasible in removing the identified significant effects.

Chapter 9: Biodiversity [APP-076] describes offsetting the potential impact through the creation of 7.4ha of broadleaved woodland habitat as part of the restoration of borrow pit F (as shown on Figure 2.1: Environmental Masterplan (Part 1, Sheet 7 of 21) [APP-086]) which would be secured in the Register of Environmental Actions and Commitments under clause BI16. The proposed species composition would reflect the species typical of Perry's Wood and other ancient woodlands in the local area, although not ash due to the prevalence of ash dieback.

As explained in paragraphs 9.11.296 and 9.11.297 of Chapter 9 [APP-076], and Appendix 9.15: Assessment of Air Quality Impacts

on Ecology Receptors [APP-139], Porters Wood is not considered to be ancient, and has been assessed as a slight adverse (not significant) effect due to nitrogen deposition.

The effect of nitrogen deposition on veteran trees has been covered in the Applicant's response to REP2-131-002.

**REP2-131-009**

### **Sub-Question**

Mitigation for veteran trees Trees are susceptible to change caused by construction/development activity. As outlined in 'BS5837:2012 - Trees in relation to design, demolition and construction' (the British Standard for ensuring development works in harmony with trees), construction work often exerts pressures on existing trees, as do changes in their immediate environment following construction of any new infrastructure. Root systems, stems and canopies, all need allowance for future movement and growth, and should be taken into account in all proposed works on the scheme through the incorporation of the measures outlined in the British Standard. While BS5837 guidelines state that trees should have a root protection area (RPA) of 12 times the stem diameter (capped at 15m), this guidance does recognise that veteran trees need particular care to ensure adequate space is allowed for their long-term retention. It is imperative that Natural England and Forestry Commission's standing advice on root protection areas for veteran trees is taken into account in planning decisions. This advice states: "For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter. This will create a minimum root protection area. Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone."

### **Applicant's Response**

For all confirmed veteran and potential veteran trees Natural England and Forestry Commission standing advice on root protection areas was followed. That is 'For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that



area is larger than 15 times the tree's diameter. This will create a minimum root protection area. Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone.'

In recognition of the uncapped root protection area buffer, the survey area buffer was extended to 30m (as opposed to the 15m proposed by BS5837:2012) outside the Order Limits to identify veterans (potential or confirmed) which might be influenced by the proposed scheme. The survey methodology adopted during the tree survey is explained in Section 1.3 of Appendix 8.4: Arboriculture Impact Assessment of the Environmental Statement [APP-122].

The Natural England and Forestry Commission advice will be followed during the preparation of the Arboricultural Method Statement and Tree Protection Plan, which are committed to within LV6 of the REAC [APP-185].

**REP2-131-010**

**Sub-Question**

Conclusion Veteran trees are irreplaceable habitats, once lost they are gone forever. Any development resulting in loss or deterioration of ancient woods and trees must consider all possible measures to ensure avoidance of adverse impact.

**Applicant's Response**

Please see the response to REP2-131-002 above.

Where practicable, the design of the proposed scheme was refined to avoid impacts on veteran trees (see Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070]). As per paragraph 9.10.38 of Chapter 9: Biodiversity [APP-076], measures to compensate for the loss of the five potential veteran trees (as committed by BI17 in the Register of Environmental Actions and Commitments (REAC), within the first iteration Environmental Management Plan [APP-185]) would be in accordance with the latest guidance from Natural England and the Forestry Commission.

The following commitments within the REAC [APP-185] are relevant:

Commitment LV4 states 'Existing vegetation within the Order Limits including temporary works areas would be retained as far as reasonably practicable. Particular attention would be given to the retention of mature vegetation including the following, which would be retained in accordance with, as a minimum, the Retained and Removed Vegetation Plans [APP-035 and AS-017]. Vegetation to be removed is shown on the same plan.

- Ancient, veteran and notable trees (both verified and potential)
- Trees subject to tree preservation orders
- Specimen trees
- Category A and B trees
- Important hedgerows
- Ancient woodlands

All trees to be retained would be protected throughout the construction period in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.'

Commitment LV5 states 'Works to Tree Preservation Orders, veteran, ancient and notable trees would be supervised by the Ecological Clerk of Works (ECoW) and supported by an experienced arboriculturist. In the event tree canopy pruning is required to facilitate the works, this would be undertaken by qualified and competent staff working to BS 3998:2010 Tree work – Recommendations.'

Commitment LV6 states 'An Arboricultural Method Statement and Tree Protection Plan would be prepared during the detailed design phase, refined following final design agreement and in place prior to works affecting trees commencing and appended to the EMP. The Arboricultural Method Statement and Tree Protection Plan would include areas of special measures to protect and retain features that would be subject to encroachment and localised removal. This would be based on the special measure areas, construction exclusion zones and outline tree protection measures presented within the Arboricultural Impact Assessment (Appendix 8.4 of the Environmental Statement [APP-122]).'

---

## **Appendix A - Operational Road User Emissions DM and DS Profiles**



---

## **Appendix B - Chief Analyst Carbon Valuation Toolkit**



---

## **Appendix C - Messing and Inworth Action Group Limited - Written Representations (Applicant's Response)**

## Applicant's responses to Written Representations of MIAG – Draft Development Consent Order

### 1. Construction and/or alteration

1.1 In their written representations submitted for Deadline 2 [REP2-084], as Page 2. Ashfords on behalf of MIAG state:

"MIAG considers that the section of proposed new road between Feering and Marks Tey is a separate NSIP for which National Highways has not applied for consent as part of this application".

1.2 The argument is that this is the construction and not an alteration of the A12. MIAG's submission is that this is new highway separate from the "altered" A12 and therefore should be a separate NSIP.

1.3 The Applicant responds as follows:

1.3.1 Sections 14 to 30 of the Planning Act 2008 (2008 Act) sets out what projects fall within the 2008 Act and outside of those other statutes providing consents for infrastructure development, such as the Town and Country Planning Act 1990, Highways Act 1980 and Gas Act 1986. The relevant provisions for the A12 Scheme are:

- (a) The 2008 Act at Section 14 defines what is a nationally significant infrastructure project. It is a project which consists of any of the following and at 14 (1) (h) Highway related development is listed.
- (b) Sub section 2 makes sub section (1) subject to the following sections including section 22.
- (c) Section 31 states that development consent is required for development to the extent that the development is or falls part of a nationally significant infrastructure project.
- (d) Section 33 (4) provides further clarification regarding highway development stating that, if development consent is required then various orders such as trunk road orders and side roads orders are not available as a consenting process.
- (e) Section 22 of the Act deals with NSIP's for highways. The three limbs of construction, alteration or improvement are described in the alternative and each is further defined by reference to criterion for whether the project is a NSIP.



- 1.4 The explanatory memorandum for the A12 Scheme describes the scheme as being for the alteration, because there is more alteration than construction within the order lands. It is accepted however that there are elements of construction, rather than alteration. The application meets the thresholds for any one of and indeed all three of the thresholds in Section 22.
- 1.5 The application has been accepted for examination by the Planning Inspectorate. This is because the project is one to be consented under the Planning Act 2008 and not other legislation that gives the Applicant the ability to apply for consent for less extensive works to the Strategic Road Network.
- 1.6 By any assessment therefore the A12 Scheme a Nationally Significant Infrastructure Project. The Planning Act 2008 is engaged. It would not be a scheme to be consented by any other regime.
- 1.7 The Planning Inspectorate rightly considered the A12 Scheme to be a scheme that met the relevant thresholds of the 2008 Act and accepted the application.
- 1.8 MIAG suggests that for a composite scheme comprising part construction and part alteration the application should be on the basis that there are separate NSIP for each element of the overall scheme.
- 1.9 The Applicant does not believe that this is how the statutory regime works – the purposes of Section 14 and in particular Section 22 are to see whether a scheme meets the thresholds of the 2008 Act or not. If a project does so meet the thresholds for the relevant type of project then there is no need to sub-divide the project in to one or more nationally significant infrastructure project within the relevant part of Section 14.
- 1.10 It is acknowledged that the application is made on the basis that there are already two NSIPs in the A12 scheme – the second relating to the Cadent gas diversion work No. U69.
- 1.11 This second NSIP is necessary to record because:
- (a) different National Policy Statements (NPS) apply; and
  - (b) different Secretaries of State would need to provide their consent (albeit the Secretary of State for Business, Energy and Industrial Strategy delegated powers to the Secretary of State for Transport for the time being).
- 1.12 It is therefore clear that the Applicant has sought development consent for all parts of the overall proposal that comprise nationally significant infrastructure projects.
- 1.13 There is a highways NSIP under S14, which clearly meets the thresholds of S22 of the 2008 Act and must be assessed in accordance with the National Networks National Policy Statement and all other considerations provided for in S104 of the 2008 Act.

1.14 There is no need to further consider which part of S22 applies. The A12 Scheme is a highways NSIP.

1.15 There is also an Energy NPS that meets the thresholds in S20 of the 2008 Act and therefore also falls within S14. This second NSIP is then assessed in accordance with the relevant Energy NPS as required by S104 of the 2008 Act.

## 2. MIAG Comments on the dDCO.

The Applicant responds to the comments on the dDCO submitted by MIAG at Deadline 2 as follows:

**Table 1.**

No.	Provision in dDCO	Detail	MIAG Comment	Applicant's Response
1.	Article 2	A number of documents to be certified refer to Schedule 12 whereas other documents to be certified do not.	Where the documents are to be certified and they are noted in Schedule 12 this should be made clear in Article 2	This schedule will be reviewed and resolved through the examination
2.	Article 2 – “maintain”  Article 6 – Maintenance of	The inclusion of the term “inspect, repair, adjust, alter, improve, landscape,	No justification for this wording used is provided in the EM. The wording is expansive and	The wording is identical to the definition found in the M42 Junction 6 Development Consent Order 2020 (SI 2020 No. 528) save for "do not" being used rather than "unlikely to"  The Applicant is content to change the words "unlikely to" to "do not". It would propose that beneficial effects should in addition not fall outside of the definition.

<p>Authorised development</p>	<p>preserve, remove, reconstruct, refurbish or replace” in Article 2</p>	<p>too general. MIAG does not consider that improving, landscaping, removing, reconstructing and replacing particularly are maintenance activities. Moreover, it should not include activities which have not been assessed in the ES.</p> <p>The definition is uncertain through the inclusion of the words “are unlikely to”. These words should be substituted with “do not”.</p> <p>NH should clarify how it intends to exercise this provision, particularly in terms of the works to J24 and in the village of Inworth.</p>	<p>The Applicant proposes the reworded provision reads:</p> <p>"provided such works <b>do not</b> give rise to any materially new or materially different <b>significant adverse environmental</b> effects in comparison with those reported in the environmental statement".</p> <p>Near identical wording is in Article 2 of the M25 Junction 28 Development Consent Order 2022 (SI 2022 No. 573). The only difference is "decommission" is not included in the A12 dDCO.</p> <p>The activities referred to in the definition of maintain are routine activities carried out by the Applicant in its role as licence holder for owning and maintaining the strategic road network. There is no reason why the A12 should be subject to a different and more restrictive permitted development regime than other parts of the strategic road network. All the listed items clearly are routine activities for maintenance. The Applicant is licence to operate and maintain the strategic road network. It is under Para 4.2(b) of its licence to</p> <p><i>Ensure the maintenance, resilience, renewal, and replacement of the network</i></p> <p>The Applicant's licence contains at paragraph 5.4:</p> <p><b>5.4</b> <i>In complying with 4.2(b), the Licence holder should take all reasonable steps to ensure the continued availability and resilience of the network as a strategic artery for national traffic, and as an effective part of the wider road and transport system.</i></p> <p>To do so the Applicant needs to be able to maintain the A12 as it would maintain any other part of its highway.</p> <p>The Applicant's licence can be found here:  <a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431389/strategic-highways-licence.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431389/strategic-highways-licence.pdf</a></p> <p>The works at Inworth will be maintained by the local highway authority. The Applicant does not seek to restrain the local highway authority's ability to do so and believe restrictions on</p>
-------------------------------	--	---	---

				<p>maintenance could inhibit the speedy and swift maintenance of the highway, reliant on its powers contained in Part IV of the Highways Act 1980.</p>
3.	Article 2 – “temporary works”	Refers to being shown on the permanent works plans	Should this not be the temporary works plans?	Corrected in the deadline 3 dDCO.
4.	Article 3(2)	Hedgerows	<p>MIAG considers that the inclusion of this Article is unreasonable but at the very least it should be subject to a plan for the operational development and maintenance periods to be approved by Natural England and / or the LPA.</p>	<p>There is no reason for the Regulations to apply given the provisions of the Order regarding hedgerows and the controls provided in the Environmental Management Plan.</p>
5.	Article 3(4)(a) and (b)	Reference excluding environmental permit and provisions of byelaws	<p>What activities is NH anticipating to be undertaken here that do not require an environmental permit?</p> <p>Has the EA's consent been sought for the</p>	<p>The issues are being discussed with the Environment Agency.</p>

			inclusion of this provision?	
6.	Article 5(2)	Reference to adjacent land	Given that the works subject to the DCO have to be undertaken within the Order limits (Article 10(1)) to what extent does the proposal affect land adjacent to the Order limits subject to other enactments?	The provision is included to prevent the provisions of other acts that apply close to the Order limits providing a restriction on the development of the proposed scheme. For instance, there are lands subject to historic railway and canal Acts close to Order limits and the proposed scheme should not be restricted by any provisions in those Acts that could impact on the implementation of the proposed scheme.
7.	Article 10(5)	Vertical limits of deviation – consultation requirements.	MIAG suggests the addition of the words to ensure the involvement of the LHA:  “and, in respect of the authorised development comprising highways other than a special road or a trunk road, the relevant local highway authority...”	This is not required. Any residual issues regarding vertical profile will be resolved with the local highway authority pursuant to requirement 10 of Schedule 2.
8.	Article 14(1) and (2)	New or altered highways (which are not	What arrangements are in place	These are matters for resolution between the Applicant and the local highway authority. Discussions continue.

		<p>trunk roads) are to be maintained by and at the expense of the Local Highways Authority.</p>	<p>between NH and ECC to ensure that the maintenance of new or altered highways will continue? We note the NH is resisting the inclusion of any form of postconstruction remediation (financial or otherwise) however no justification for this position has been provided to date. MIAG reiterates that where it transpires that the impacts from the scheme as greater than those anticipated at this stage, there should be recourse available to communities and ECC as LHA to request funds or initiate a remediation mechanism. to secure further mitigation or to</p>	
--	--	---	--	--

			<p>put in place measures that will alleviate the identified issues.</p> <p>Has ECC requested a section 6 Highways Act agreement with NH for the roads that will form part of their network following the delivery of the scheme? If not can this be pursued by ECC.</p> <p>What measures are in place to mitigate unforeseen impacts from the proposal which have not been anticipated or assessed as part of the scheme?</p>	
9.	Article 15(5)		<p>MIAG considers that this provision should be "unless otherwise agreed with LHA, not LPA".</p>	<p>The Applicant proposes the following change at Deadline 3:</p> <p>(5) Unless otherwise agreed in writing with the relevant <del>planning</del> <b>highway</b> authority, the footpaths, cycle tracks, footways and bridleways set out in Part 13....."</p>

10.	Article 15(6)	De-trunking at the discretion of NH	<p>MIAG does not consider that the date for de-trunking should be solely decided by the undertaker.</p> <p>MIAG suggests the addition of a new Article 15(7) to provide:</p> <p><i>“The undertaker may only make a determination for the purposes of paragraph (8) with the consent of the Secretary of State, following consultation with the relevant local highway authority as to the date and as to whether the highway to be de-trunked is of a reasonably satisfactory standard for use as a local highway.”</i></p>	<p>The Applicant needs to ensure that it can achieve the de-trunking provided for in the Application in order to pass ownership of that highway to the local highway authority.</p> <p>National Highways is required to maintain its highway to the standard of a trunk road until the date that it is de-trunked. Upon de-trunking the standards will shift to those of the local highway authority. This reflects the different maintenance methodologies and priorities applied to the strategic road network as opposed to local highway. An article which prevents de-trunking until the highway is of a reasonably satisfactory standard for use as a local highway is therefore likely to prevent the de-trunking from taking place.</p>
11.	Article 16	Speed limits change when	How is 'open for traffic' determined? Will	The term is standard wording in DCOs and is also in general use in other traffic regulation and speed limit orders and is generally well understood. It simply indicates that the road has been



		the roads are 'open for traffic'	residents be notified of the change by NH / ECC?	<p>thrown open, once and for all, for public use, and can be seen to broadly parallel this concept in common law dedication.</p> <p>The law provides for speed limits to be indicated to road users by a combination of signage permitted under the Traffic Signs Regulations and General Directions 2016 and any system of street lighting which exists on the street (in accordance with Section 81 of the Road Traffic Regulation Act 1984). In practice, therefore, this will not be an issue for residents, or indeed the public at large, who will know that a particular speed limit applies in the normal way - because the signage/street lighting will indicate the restriction.</p>
12.	Article 17	Power to alter layout etc. of streets and the ability to increase/reduce the width or carriageways by increasing / reducing the widths or footpaths and footways etc.	<p>To what extent is NH proposing to use these powers in respect of the proposed works in Inworth?</p> <p>Given all measurements in the dDCO are approximate, this provision is broad, general and gives no certainty on the extent to which it will be used as part of the proposed development.</p>	<p>These are powers which are generally available to highway authorities and describe works which can be undertaken by them without public consultation. Frequently such works will also fall within permitted development rights for the improvement of roads (see Paragraphs A and B of Part 9 of Schedule 2 of the Town and Country Planning (General Permitted Development) Order 2015) and will not require planning permission.</p> <p>The Applicant's proposed works to the B1023 are explained in the Applicant's Environmental Statement, Appendix 3.3: Junction 24, Inworth Road and Community Bypass Technical Report [APP-095] at section 6.5.</p>
13.	Articles 52 and 58	Human remains and consecrated land.	MIAG notes that the EM provides that Article 58 has been included in the dDCO because of the proposed	<p>The issue will be resolved at detailed design. The Applicant cannot rule out a need to carry out temporary works to consecrated land and has assumed a worst-case scenario, which would lead to minor interventions to the churchyard and the potential loss of some trees. The Applicant is liaising closely with the Diocese on the topic.</p> <p>No permanent acquisition within the functional church yard. A slither of land forming part of the highway is also registered at HM Land Registry as falling within the Diocese's title.</p>

			works at Inworth Church. It is not clear to what extent works will encroach on the Church land given the broad nature of the description of Work No. 122 (see below).	
14.	p.53		There is no reference to s.20 of the PA08 in respect of the gas main.	The Applicant has amended the Order at Schedule 1 as follows:  "The authorised development is a nationally significant infrastructure project as defined in sections 14, 20 and 22 of the 2008 Act(a) and associated development within the meaning of section 115(2) of the 2008 Act, comprising..."
15.	Schedule 1 – Permanent Works	Work numbers 74 and 122	Works to Inworth Road are noted generally under work no. 122, with the remainder of works in and around Inworth Road relating to flood alleviation and attenuation ponds.  NH has provided detail in APP3.3 of its intention to deliver works along Inworth Road which form the basis for a	The Applicant believes the dDCO is appropriately drafted and gives sufficient precision for the proposed works at Inworth. The works are relatively limited in nature, comprising improvements to the existing highway.

			<p>number of assessments that have been undertaken by NH to determine the likely impacts from the scheme on Inworth Road. However, the works listed in the dDCO do not specify the limitations e.g. areas where the road is to be widened, passing places and footway widths.</p> <p>Given the consultations and discussions to date with the local communities and with MIAG, MIAG considers that these works should be more precisely defined to give the local communities certainty on the delivery of these works.</p>	
--	--	--	---	--

			<p>Also, the list of associated development items listed on p. 88 of the dDCO makes work item 122 and 74 even less certain. It is not clear to what extent works in each works number require associated development. This gives no certainty to MIAG on the extent to which additional works in Inworth will be delivered as part of the proposal. MIAG requests that NH clarifies what works they expect will take place in Inworth and whether items wrapped up in Part 1 of Schedule 1 (paras (a) – (t)) will be used in Inworth (and if they will not be</p>	
--	--	--	---	--

			used they should not be included in the dDCO insofar as they relate to the works in Inworth).	
16.	Work numbers U140 to U150	Utility diversions through Inworth Road	There are a significant number of utility diversions proposed to take place on the Inworth Road. Can NH provide any certainty on the coordination of these works to ensure that disruption to users of the highways in these areas (coupled with the proposed listed works to Inworth Road) will be minimised?	The Applicant will aim to limit disruption to the local highway network. The Applicant will engage with ECC and utilities and co-ordinated through the Traffic Management Working Group.
17.	Schedule 2, Part 1, Paragraph 1	The term "commence"	The current proposed definition carves out a number of work items (which are very broad). The definition	The Applicant believes the existing wording is precedent and appropriate. A change to requirement 2 is proposed at deadline 3.

			<p>includes 'mitigation works', 'remedial works in respect of contamination' and 'erection of construction plant and equipment'. They also include a number surveys and mitigation works.</p> <p>In practice the extent of these works can be extensive and this definition is not currently linked to the environmental assessments undertaken. MIAG considers that the works permitted pre-commencement should be narrowed, defined by NH and limited to what has been assessed in the ES without mitigation to be secured through</p>	
--	--	--	--	--

			the Requirements.	
18.	First Iteration EMP” and Paragraphs 3 and 4	The provision of the First, Second and Third EMPs	None of these plans is linked to the assessments in the ES. MIAG assumes the intention is that these plans will deliver within the envelope of impacts assessed in the ES.	It is clear from Section 1.1 and paragraph 3.1 of the First Iteration Environmental Management Plan (FIEMP) that the FIEMP is an integral part of the environmental assessment process. The definition of Second Iteration EMP and Third Iteration EMP in Schedule 2 to the dDCO make it clear that these documents must be in substantial accordance with the FIEMP.
19.	Requirement 10	Design	<p>We would expect to see compliance with the design principles put forward in the application with this document included in the list of certified documents in Schedule 12.</p> <p>MIAG does not consider that article 10 is properly drafted and that it should read as below (the yellow highlighted part should – we</p>	<p>The additional wording at MIAG's proposed (3) is unnecessary and not agreed. Detailed design is sufficiently controlled by the current wording of requirement 10.</p> <p>Requirement 10(1) has been altered at deadline 3 as there should not be a paragraph (c).</p>

			<p>consider – be included in the draft A12 DCO):</p> <p>Detailed design 12.—(1) The detailed design for the authorised development must accord with—</p> <p>(a) the preliminary scheme design shown on the works plans, the general arrangement plans and the engineering section drawings.</p> <p>(b) the principles set out in the environmental masterplan; and</p> <p>(c) the design principles set out in the scheme design approach and design principles, unless otherwise agreed in writing</p>	
--	--	--	---	--



			<p>by the Secretary of State following consultation with the relevant local authority on matters related to their functions, provided that the Secretary of State is satisfied that any amendments would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.</p> <p>(2) Where amended details are approved by the Secretary of State under paragraph (1), those details are deemed to be substituted for the corresponding plans or sections</p>	
--	--	--	--	--

			<p>and the undertaker must make those amended details available in electronic form for inspection by members of the public.</p> <p>(3) No part of the authorised development is to commence until, for that part, a report has been submitted to, and, following consultation with the relevant local planning authority, approved by the Secretary of State, demonstrating that—</p> <p>(a) the undertaker has engaged with relevant stakeholders on refinements to detailed design for that part of the authorised development;</p>	
--	--	--	---	--

			<p>(b) the undertaker has had regard to the relevant stakeholders' comments; and</p> <p>(c) any refinements to the detailed design for that part of the authorised development arising as a result of that engagement accord with the scheme design approach and design principles.</p>	
20.	Requirement 14	Approvals and amendments	<p>There is no provision currently that requires such amendments to be undertaken in consultation with the local highways or planning authorities nor are the provisions linked to ensure that any further</p>	<p>This requirement is included for clarification purposes and does not of itself authorise amendments.</p> <p>The relevant engagement is dealt with in the relevant requirement, and each requirement has a tie to the ES or documents provided to inform the environmental assessment. There is no need for additional wording.</p>

			approved details are within the effects assessed in the ES.	
21.	Requirement 16	Further information	MIAG considers that ECC should be able to request further information from NH (whether directly or indirectly through the SoS) as part of the process of being consulted through the discharge of the Requirements.	The Applicant does not see any need for this. There is sufficient provision for consultation within the requirements.

**Womble Bond Dickinson**

**Deadline 3, 9 March 2023**