



Report to the Secretary of State for Communities and Local Government

by Melvyn Middleton BA(Econ) DipTP Dip Mgmt MRTPI

an Inspector appointed by the Secretary of State for Communities and Local Government

Date: 28 September 2018

Appeal under section 78 of the Town and country Planning Act 1990 as amended by
the Planning and Compensation Act 1991 made by

Cuadrilla Elswick Limited

Inquiry Held between 10 April and 25 April 2018

Accompanied site inspections were carried out on 20 and 26 April and 9 May 2018

Agricultural land that forms part of Roseacre Hall, to the west, north and east of Roseacre Wood, and land that forms part of the Defence High Frequency Communications Service site between Roseacre Road and Inskip Road, off Roseacre Road and Inskip Road, Roseacre and Wharles, Preston, Lancashire.

File Ref(s): APP/Q2371/W/15/3134385

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LIST OF ABBREVIATIONS

Abbreviation	Reference
AE	Alan Edwards
ANPR	Automatic Number Plate Recognition
BR	Blue Route
CD	Core Document
CS	Core Strategy
DB	David Bird
DHFCs	Defence High Frequency Communication Service
EPC	Elswick Parish Council
ES	Environmental Statement
ESTA	Environmental Statement Traffic Addendum
FBLP	Fylde Borough Local Plan
EFT	Extended Flow Time
DB	David Bird
DMfRB	Design Manual for Roads and Bridges
GwTPC	Greenhalgh with Thistleton Parish Council
GR	Green Route
HGV	Heavy Goods Vehicle
InqDoc	Inquiry Document
IwSPC	Inskip with Sowerby Parish Council
IR	(Previous) Inspector's Report
IEMA	Institute of Environmental Management and Assessment
JLWMLP	Joint Lancashire Waste and Minerals Local Plan
LCC	Lancashire County Council
ML	Mark Lappin
MfS	Manual for Streets
MwWTC	Medlar with Wesham Town Council
NL	Nathalie Lieven
NPPF	National Planning Policy Framework
NS	Neil Stevens
NwCPC	Newton-with-Clifton Parish Council
OGVG	Ordinary Goods Vehicle Group
para.	paragraph
pg.	page
PP	Passing Place
PIA	Personal Injury Accident
PIM	Pre-Inquiry Meeting
PNR	Preston New Road
PWDR	Preston Western Distributor Road
PoE	Proof of Evidence
PRoW	Public Right of Way
R&WPC	Roseacre and Wharles Parish Council
RAG	Roseacre Awareness Group
RW	Roseacre Wood
Route APP	Computer aided route description application to be use to guide HGVs along the designated routes

RR	Red Route
RW	Roseacre Wood
SoS	Secretary of State
SoCG	Statement of Common Ground
TH	Thomas Haste
TA	Traffic Assessment
TMP	Traffic Management Plan
TRAK	Computer aided system for plotting vehicle movements
VRUs	Vulnerable Road Users
WLP	Wyre Local Plan
Xx	Cross Examination

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Agricultural land that forms part of Roseacre Hall, to the west, north and east of Roseacre Wood, and land that forms part of the Defence High Frequency Communications Service Site between Roseacre Road and Inskip Road, off Roseacre Road and Inskip Road, Roseacre and Wharles, Preston, Lancashire.

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Caudrilla Elswick Limited against the decision of Lancashire County Council.
- The application Ref LCC/2014/0101, dated 16 June 2014, was refused by notice dated 25 June 2015.
- The development proposed is construction and operation of a site for drilling up to four exploratory wells, hydraulic fracturing of the wells, testing for hydrocarbons, abandonment of the wells and restoration, including provision of access roads and improvement of access onto the highway, security fencing, lighting and other uses ancillary to gas exploration activities, including the construction of a pipeline and a connection to the gas grid network and associated infrastructure.

Summary of Finding: the additional evidence and proposed mitigation are not sufficient to suggest that the proposal would no longer have a serious and very significant adverse impact on the safety of people using the public highway. As such that there would be an unacceptable impact on highway safety.

1. PROCEDURAL AND BACKGROUND MATTERS

Procedural matters

1.1 A public Inquiry was held between 9 February and 16 March 2016 to hear evidence for and against this appeal, along with three other appeals, one affecting the site of this appeal (Roseacre Wood (RW)) and the other two at a site at Plumpton Hall Farm, which is to the north of Preston New Road (PNR) at Little Plumpton. The other three appeals were allowed by the Secretary of State (SoS) in October 2016, following recommendations from the Inspector to that effect. That Inspector recommended that this appeal be dismissed.

1.2 This report should be read alongside the relevant parts of the previous report dated 4 July 2016. The figures in square brackets in sections 1 to 13 relate to the various cases advanced at this Inquiry and refer to either the relevant Inquiry Document or Core Document, which contain the source of the material being reported upon and which are set out in the aforementioned lists. I shall use the abbreviation "para." for paragraph, "pg." for page and "CD" for core document.

1.3 The Inquiry was reopened at the request of the SoS, in order to receive further evidence on highway safety, in the context of the application to drill up to four exploratory wells, at the RW site. In particular, he considered that the Inspector's conclusions largely rested on the failure of the Appellant to provide adequate evidence that it had properly considered and addressed the safety issues and additionally its failure to demonstrate that the proposed mitigation is workable in practice. He considered that the Appellant may be able to demonstrate that the safety concerns, raised by parties and the Inspector, could be satisfactorily mitigated. He therefore

decided to give the Appellant and other parties the opportunity to provide additional evidence on this point by reopening the Inquiry.

1.4 The SoS directed that my role was simply to hear and report only on such evidence i.e. mitigation to address the highway safety concerns. The SoS specifically said that he will not entertain additional evidence on the merits of the exploration for shale gas, or any other matters. In consequence I did not request or hear evidence on other matters that do not relate to highway safety, with the exception of that referred to in paras. 4.144-150, 6.7, 8.2, 9.3, 9.3, 12.51, 12.52, 12.56, 15.165-169.

1.5 Vehicular access to the site was originally proposed to be along a defined route from the A583 at Lodge Lane Clifton. As well as examining this route further and introducing some mitigation proposals, the Appellant has also introduced two new routes, to be used as alternative accesses to the site. They were not before the previous Inquiry. The now three routes would be used in tandem and as well as mitigation that addressed some of the concerns on the original route, mitigation was also put forward to address potential highway safety concerns raised in connection with the proposed two new routes. The revised proposals were the subject of a consultation exercise during the period from 29 November 2017 to 10 January 2018. Over 400 representations were received in response to this consultation. As the proposed means of heavy goods vehicle (HGV) access to the site had fundamentally changed from that discussed at the previous Inquiry, I widened the scope of the Inquiry and my report to cover other relevant and new highway considerations raised by the introduction of the new routes, including their passing through three villages not previously affected and some new considerations that related to those communities.

1.6 The Inquiry was held on 10-13, 17-19, 24 and 25 April 2018. I carried out accompanied visits along the three proposed vehicular routes to the site and to other relevant locations in the surrounding area on 20 and 26 April and 8 May 2018. Several unaccompanied site inspections were also carried out when I observed the site and its surroundings from public viewpoints, as well as the nature of the proposed routes and the traffic thereon.

1.7 At the time of the accompanied site visit on 20 April there was extensive on-street parking within the parts of Elswick affected by the two new routes. The extent of this parking was noticeably different to that which I had witnessed on previous unaccompanied visits to the area and it occurred to me that it may have been orchestrated. There were also some other lesser inconsistencies. To confirm whether this was indeed the case, I revisited the area on a number of subsequent occasions. In all I visited the area unaccompanied on ten separate occasions.

1.8 On 24 July 2018 and subsequent to the Inquiry, National Planning Policy as set out in the National Planning Policy Framework (NPPF) of March 2012 [CD 9.1], was revised and updated. Whilst the SoS's original decision was made in the context of the 2012 version, his revised decision should be made, having regard to the NPPF 2018. The three main parties were each invited to make representations on the changes. I have summarised the main factual changes relevant to the appeal in paras. 1.19-1.23 below and the responses from the parties within their cases below.

Pre-Inquiry Meeting and Inquiry Website

1.9 A Pre-Inquiry Meeting (PIM) was held on 31 October 2017. As well the usual Inquiry procedures, the meeting discussed at length the narrow scope of the reopened

Inquiry and the procedure for a consultation to be organised by the Appellant on its revised proposals. At that point it was not known that the Appellant proposed to introduce two new routes to access the site by HGVs. The notes of the PIM set out the details of the proceedings, the Inquiry date and its venue. A guidance note was also issued for the benefit of third parties [Inquiry Document (ID) INSP/1].

1.10 They also provided the contact details of the Programme Officer, Yvonne Parker who established and managed an Inquiry webpage. The information provided included details of Core Documents, Inquiry Documents, the Inquiry Programme and a link to the Inquiry Webcast. I would like to publicly thank Yvonne for her help in the organisation and the management of the Inquiry. In particular, I am indebted to her for the provision of the website and her most efficient handling of the Inquiry documentation and programme, as well as arranging for a large number of third party participants to be heard in a very effective way.

Rule 6 Parties

1.11 At the PIM the number and status of the Rule 6 parties, still wishing to be involved in the Appeal, was confirmed. Roseacre Awareness Group (RAG) (supported by Treales Parish Council together with Roseacre and Wharles Parish Council) was present at the first Inquiry as was the Parish Council of Newton-with-Clifton (NwCPC) as Rule 6 parties. NwCPC had decided to join RAG for this Inquiry. Subsequent to the Appellant's consultation and the introduction of the two new routes, Inskip with Sowerby Parish Council (IwSPC) decided to support RAG. Elswick Parish Council (EPC), Greenhalgh with Thistleton Parish Council (GwTPC), Kirkham Town Council (KTC) and Medlar with Wesham Town Council (MwWTC) all decided to apply individually for Rule 6 Status. In view of the lateness of the proceedings when the applications were made that course of action was impracticable, in the context of evidence exchange and Rule 6 Status was not granted to any of them. EPC therefore decided to formally join RAG. The other three were invited to appear as third-party organisations, which they duly did. As well as participating under the RAG umbrella, EPC, IwSPC and NwCPC were all granted requests to attend as third-party organisations and to present evidence that concerned their respective parishes, additional to that which was presented on their behalf by RAG.

The Site and Surroundings

1.12 The appeal relates to a proposed shale gas exploration site and the associated monitoring works, at RW. It was referred to as Appeal C at the previous Inquiry and in the subsequent decision. It is a greenfield site located on agricultural land, forming part of Roseacre Hall Farm. A detailed description is contained in the previous report [CD 4.2 paras. 1.40-1. 47].

1.13 The application site also includes a part of the Defence High Frequency Communications Service Site (DHFCS) at Inskip, which is owned by the Ministry of Defence. The defence communication activities on the site are localised around the existing structures and masts, with the remaining land used for agricultural purposes. Two of the now three routes would use a linear part of this site between Higham Side Road and Roseacre Road to gain access to the appeal site, thereby avoiding the village of Wharles. That part of the site contains old access roads, some dating back to the development and use of the site during the Second World War as an airfield. These are in various states of disrepair and would be repaired/improved to an extent that made them suitable for use by HGVs servicing the appeal site.

Planning Policy and Guidance

1.14 The statutory Development Plan for the area includes the Joint Lancashire Minerals and Waste Development Framework Core Strategy (CS), dated February and adopted March 2009, the Joint Lancashire Minerals and Waste Local Plan - Site Allocations and Development Management Policies Part 2 (JLMWLP), dated September 2013 [CD 9.2], and those policies of the Fylde Borough Local Plan (FBLP), adopted May 2003 and altered 2005, that are saved by direction of the SoS [CD 9.3].

1.15 Those policies that were relevant to this appeal at the time are summarised in the previous Inspector's Report (IR) paras. 1.151 -1.172. The Inspector notes that the summaries of policies set out are for the convenience of readers and are not complete reflections of the policies. Reference should be made to the relevant paras. within the respective plans for the full text.

1.16 On reading third party evidence (e.g. 4/15) after the Inquiry, I was alerted to the fact that IwSPC is within Wyre Borough and not Fylde Borough. Parts of the newly introduced Red Route (RR) therefore pass through Wyre Borough. The Policies of the Wyre Local Plan (WLP) 1999 that have been saved by direction of the SoS may consequently be relevant to the wider appeal. Whilst CD 9.6 contains an extract from the WLP 1999 that discusses transport matters, no specific policies are set out and no details of any relevant WLP policies were specifically put before the Inquiry by any party. Nevertheless, it is likely that there are policies within the adopted WLP that are relevant to the non-highway safety aspects of this proposal.

1.17 The Fylde Borough Council is preparing a new Fylde Council Local Plan to 2032, with the examination in public recently being held and adoption currently anticipated in early 2019. A copy of Policy T4 Enhancing Sustainable Transport Choice can be found in CD 9.4.

1.18 Wyre Borough Council is also preparing a new WLP, whose examination in public is currently being held. Adoption is expected to be early in 2019. CD 9.7 contains a copy of Policy CDMP6 Accessibility and Transport.

1.19 On 24 July 2018 and subsequent to the Inquiry, National Planning Policy as set out in the National Planning Policy Framework (NPPF) of March 2012 [CD 9.1], was revised and updated.

1.20 In the revised NPPF, the thrust of Section 17, which addresses the sustainable use of minerals, is effectively the same as in paragraph 142 of the previous NPPF. With regard to on-shore oil and gas development, in particular, the revised NPPF now states that minerals planning authorities should: "*...recognise the benefits of on-shore oil and gas development, including unconventional hydrocarbons, for the security of energy supplies and supporting the transition to a low-carbon economy; and put in place policies to facilitate their exploration and extraction*" [para. 209].

1.21 Section 9 of the NPPF addresses the promotion of sustainable transport. This states that "*in assessing applications for development, it should be ensured that:*

- a. *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - b. *safe and suitable access to the site can be achieved for all users;*
- and*

-
- c. *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree*" [para. 108].

1.22 It goes on to state that "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe*" [para. 109].

1.23 The main change in these policies compared with the 2012 version of NPPF is the clarification that relevant impacts are capacity, congestion and safety and that for a development to be refused on highways grounds there would have to be an unacceptable impact on highway safety or the residual cumulative impacts on the road network would have to be severe. There is no definition of "unacceptable impact" in the NPPF and it is therefore for the decision-maker to determine on a case-by-case basis.

1.24 JLMWLP Policy DM2 sets out the principles that will govern the management of development and says that applications will be supported where any material, social, economic or environmental impacts that would cause demonstrable harm can be eliminated or reduced to acceptable levels. Among other matters, it expresses support for applications which, for example, make a positive contribution to the reduction of carbon emissions, and sets out some ways in which these goals can be achieved. It also says that this can be achieved through the control of the number, frequency timing and routing of transport related development.

1.25 The SoS has previously determined that this policy is consistent with the NPPF and should be given full weight [CD 4.2 para. 24]. In addition, he considers that on its own it provides a sufficient basis to judge the acceptability of the proposal in principle. The thrusts of the revised NPPF transport policies that relate to this appeal are materially similar to those in the 2012 version. I can see no reason why JLMWLP Policy DM2 should not continue to be given full weight. The policies in the CS and the FBLP referred to by the previous Inspector, have no bearing on the highway safety aspects of the scheme and I do not consider them further.

1.26 The revised NPPF at Para 12 reinforces the statutory status of the Development Plan as the starting point for decision making and at Para 11 it sets out a presumption in favour of sustainable development.

The Proposal

1.27 The original proposals, as they relate to this proposed extraction site, are set out in paras. 1.131 to 1.134 of the previous report [CD 4.2]. They also involve the use of a linear part of DHFCS Inskip between Higham Side Road and a point on Roseacre Road, opposite the access into the appeal site. The use of this would enable large vehicles visiting the appeal site to do so without travelling through the village of Wharles. Old access roads, which cross this part of the appeal site, would be repaired, rebuilt and extended to create a route suitable for use by the largest HGVs.

1.28 Equipment required for the drilling and extraction activities would be transported by HGV. The original scheme proposed and as considered at the previous Inquiry involved, the use of an access route from the A583 at Lodge Lane, Clifton and then passing along Clifton Lane, Station Road, Dagger Road, Salwick Road, and either via Inskip Road and Roseacre Road or via Higham Side Road and through the DHFCS Inskip facility to cross Roseacre Road and into the site. At this Inquiry the Appellant

confirmed that no HGVs visiting the appeal site would use the alternative route along Inskip Road and through Wharles.

1.29 The Appellant has now introduced two additional routes to access the site. They are referred to as the Green and the Red Routes (GR & RR). The original route from the A583 south of Clifton is referred to as the Blue Route (BR).

1.30 The GR & RR both begin at the junction of the A585(T) with the B5269 west of the village of Thistleton. They each follow that route eastwards until the middle of the village of Elswick. The GR turns right off High Street and follows Roseacre Road to the south, through the village of Roseacre and until the entrance to the appeal site. The RR continues eastwards on the B5269, along Lodge Lane and Preston Road to the eastern edge of the village of Inskip. It then turns off this road, following Higham Side Road in a southerly direction until it meets the BR. Together they would then follow an improved route through the DHFCS Inskip to Roseacre Road, close to the entrance to the appeal site.

1.31 In addition to the introduction of two additional routes and whilst preparing for the second Inquiry and also at the Inquiry, the Appellant made a number of detailed changes to the routing proposals and their use. These included:

- a. No two appeal related HGVs passing in opposite directions on each route, except for the stretch of the GR and RR which overlap (B5269 between the A585(T) and Roseacre Road, Elswick);
- b. The introduction of signal controls along a part of Dagger Road (on the BR) to prevent any two HGVs passing in opposite directions on that part of Dagger Road;
- c. The introduction of a comprehensive set of passing places/road widening;
- d. No HGVs to travel to the site on Saturdays, Sundays, Bank Holidays or during the hours of darkness, apart from on nine separate occasions if there is an emergency;
- e. No HGVs to travel to or from the site on the RR before 09:00 or after 15:00 during Inskip school term time;
- f. No use of Inskip Road/Roseacre Road through Wharles at any time;
and
- g. Improvements to the A585(T)/B5269 Junction.

The Application and the Decision

1.32 The application the subject of Appeal C was refused on 25 June 2015. A copy of the refusal notice is reproduced at [CD 4.1]. The reason for refusal was:

"That the proposed development would be contrary to Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan – Site Allocation and Development Management Policies in that it would generate an increase in traffic, particularly HGV movements, that would result in an unacceptable impact on the rural highway network and on existing road users, particularly vulnerable road users (VRUs) and a reduction in overall highway safety that would be severe."

Other Agreed Facts

1.33 A Statement of Common Ground was prepared by the Appellant concerning baseline conditions, route assessment, traffic generation and management and relevant policy. Apart from two matters of policy, RAG did not agree to anything put forward. The Appellant and Lancashire County Council (LCC) agree the following:

- a. The 12hr baseline traffic flows as set out in Table 2.6 of the Baseline Transport Conditions Report for the three HGV Routes [CD 7.2] are accepted for the purposes of assessing the appeal proposals;
- b. The baseline vulnerable user flows as set out in Table 3.1 – Table 3.7 of the Baseline Transport Conditions Report for the three HGV Routes [CD 7.2] are accepted as the observed flows at the survey locations during the period of the survey;
- c. The baseline HGV flows and agricultural vehicle flows as set out in Table 2.7, Table 2.8 and Tables 4.1 – 4.3 of the Baseline Transport Conditions Report for the three HGV Routes [CD 7.2] are accepted in general terms for the purposes of assessing the appeal proposals;
- d. The baseline traffic speeds (average by vehicle classification and 85th percentile for all vehicles) set out in Table 2.9 and Table 2.10 of the Baseline Transport Conditions Report for the three HGV Routes [CD 7.2] are accepted for the purposes of assessing the appeal proposals;
- e. The recorded accident history data for the most recent 5-year period set out in Table 5.1 and Table 5.2 of the Baseline Transport Conditions Report for the three HGV Routes [CD 7.2] is accepted in principle. The data is the recorded accidents. It is agreed that over time this will change and there will be other incidents that are not represented in the data;
- f. paragraphs 5.2 to 5.7 of the Baseline Transport Conditions Report for the three HGV Routes [CD 7.2], are agreed but there will be other incidents that are not reported in the data;
- g. The carriageway widths at the points measured and based on OS mapping and topographical survey data (for carriageways less than 6m wide), set out in the Baseline Transport Conditions Report (Appendix B) for the three HGV Routes [CD 7.2] are accepted for the purposes of assessing the appeal proposals;
- h. The revised forecast for HGV generation (set out in Section 5 of CE1/1 David Bird's (DB's) Proof of Evidence) can and should be relied upon for the purposes of assessing the appeal proposals;
- i. The profile of HGV generation for each stage of the exploration works (set out in Section 5 of CE1/1 DB's Proof of Evidence) can and should be relied upon as a realistic profile of HGVs that would be generated by the appeal proposal;
- j. The Environmental Assessment methodology set out in Section 3 of Appendix 18.2 of the Environmental Statement Traffic Addendum (ESTA) [CD 6.2] is in accordance with the Guidelines for the Environmental Assessment of Road Traffic published by the Institute of Environmental

Assessment in 1993 (now Institute of Environmental Management and Assessment (IEMA guidelines)) and is agreed;

- k. The traffic link screening set out in paragraphs 4.5 to 4.7 and Tables 4.3 to 4.5 of Appendix 18.2 of the ESTA [CD 6.2], which resulted in B5269 Thistleton Road and B5269 Lodge Lane being screened out of the ESTA, is agreed;
 - l. The assessment of the impact on driver delay of appeal site generated HGVs set out in paras. 4.21 – 4.23 of Appendix 18.2 of the ESTA [CD 6.2] is agreed;
 - m. The assessment of the impact on fear and intimidation of appeal generated HGVs set out in paras. 4.34 – 4.38 of Appendix 18.2 of the ESTA [CD 6.2], is agreed;
- and
- n. The swept path analysis of the abnormal load vehicle required for the drill mobilisation/demobilisation routing along the three HGV routes shown in Drawings 172806_AT_G01 – G03, 172806_AT_R01 – R03 and 172806_AT_B01 – 04 and included in Appendix G of Appendix 18.2 of the ESTA [CD 6.2] shows that the movements can safely be made under police escort.

1.34 During the course of the Inquiry, RAG agreed the accuracy of the Baseline Conditions Survey in the locations and at the times that they were recorded (para. 4.17 below). There was no agreement to the Appellant's assessments of the likely outcomes of any of the proposed traffic management measures from either LCC or RAG.

2. THE CASE FOR CUADRILLA ELSWICK LIMITED

Introduction

2.1 The only issue before this Inquiry is whether the proposal creates an unacceptable impact upon highway safety. The appropriate test to apply is set out at NPPF para. 109 *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe"*. This must mean that this development should only be found to be unacceptable if the impact on highway safety results in a material increase in the number or severity of Personal Injury Accidents (PIAs). The matter of unacceptability is a matter for the decision maker in the circumstances of each case but there would need to be a materially quantifiable impact supported by relevant evidence.

2.2 The network is not at capacity and the safety record is good. Therefore, there would need to be evidence that there was likely to be a large numeric increase in injury accidents (or in the likely severity of those accidents) for the impact to be considered unacceptable.

2.3 Whilst an accident between an HGV and a cyclist would likely to be serious for the cyclist, this is a network where there are already a significant number of cyclists and on some of the links a significant number of HGVs but no accident record.

2.4 To determine whether there is an unacceptable impact, it is essential to consider each individual location or risk asserted separately in order to establish whether there is a material risk. The fact that there may be a number of locations which cause difficulty in manoeuvring, but no material safety impact, does not mean that cumulatively they create an unacceptable cumulative risk.

2.5 The proposals differ significantly from those considered at the first inquiry in that:

- a. There are three routes now proposed; GR, RR and BR, which can be used as alternatives at any one time except Extended Flow Time (EFT);
- b. Cuadrilla can now commit to no two Cuadrilla HGVs passing in opposite directions on each route, save for the stretch of the RR and GR which overlap (dealt with below);
- c. Signal control has been introduced along a part of Dagger Road (on the BR) to prevent any two HGVs from approaching in opposite directions;
- d. A comprehensive set of passing places/road widening has been introduced;
- e. There will be no HGVs on Saturdays or during the hours of darkness;
- f. There will be no use of the road through Wharles at any time;
- and
- g. As a result of condition 8C no route would be used as the sole route for more than five working days except during EFT.

2.6 The evidence is also significantly different from that before the previous Inquiry, as follows:

- a. Evidence has been agreed with the Highway Authority (LCC) on the baseline conditions, including the evidence of VRUs, the speed data, the HGV generation figures and the accident data;
- b. Vectos have carried out topographical surveys on all parts of the route with less than 6m highway width;
- and
- c. There is much clearer evidence on the quantum and make up of HGV generation during the scheme. The inquiry now has the benefit of the factual data from PNR on the construction and drilling phases.

2.7 The flexibility between routes allows for the operation to deal with protestor action or any other difficulties on one of the routes. There is also extensive embedded mitigation in terms of road widening, passing places; improvements to the A585(T)/Thistleton Road junction and the Dagger Road signals. Additionally, the proposal would only use the routes during daylight hours (save for the 9 occurrences during the whole life of the project) and there will be no use on Saturdays when VRUs can be expected to be at their highest, save in an operational emergency. Furthermore, there will be no use of the RR during the school day at Inskip School.

Planning Policy

2.8 Section 17 of the NPPF addresses the sustainable use of minerals. With regard to on-shore oil and gas development, in particular, the NPPF states that minerals planning authorities should: *"recognise the benefits of on-shore oil and gas development, including unconventional hydrocarbons, for the security of energy supplies and supporting the transition to a low-carbon economy;"*

2.9 Section 9 of the NPPF addresses the promotion of sustainable transport. The main change in these policies compared with the 2012 version of NPPF is the clarification that relevant impacts are capacity, congestion and safety and that for a development to be refused on highways grounds there would have to be an unacceptable impact on highway safety or the residual cumulative impacts on the road network would have to be severe. There is no definition of "unacceptable impact" in the NPPF and it will be for the decision-maker to determine on a case-by-case basis.

2.10 At the direction of the Secretary of State, the inquiry that took place in April 2018 had one purpose: to consider whether the proposal creates an unacceptable impact on highway safety. The evidence submitted by the Appellant in advance of and during the inquiry provided an extremely detailed analysis of the likely impacts of the proposed exploration at RW on highway safety. The conclusion of that evidence was that the traffic generated by the development can be accommodated on the local road network satisfactorily and there is no evidence to suggest that there will be a material, or indeed any, increase in the risk of personal injury accidents occurring.

Baseline Conditions

2.9 The baseline condition survey is agreed with LCC. The methodology was sent to LCC and to RAG. The letter to RAG did not expressly ask for comments but it must have been obvious to any fair reader that if it was unhappy with the methodology (including the location of the survey points) and thought anything important had been missed out they should have told Vectos. Vectos received no comments on the methodology, even though RAG were in communication with them in June and July 2017. At no stage did it suggest that the cameras were in the wrong places, or that an important pedestrian and equestrian flow would be missed on Roseacre Road. Further RAG in its consultation response on the ESTA did not suggest that there was a problem with the data.

2.10 RAG have not chosen to do their own survey and whilst the onus was on the Appellant, it has done a comprehensive and robust survey. The Highways Authority have not challenged the methodology or its conclusions. If RAG wished to do so, then it could have carried out its own observational survey of the route. Very little weight can be given to RAG's questionnaire, which gives no indication of how many people, for example, walk from Roseacre to Elswick and how often.

2.11 The surveys were carried out across the summer months, which is agreed to be the time of maximum use by VRUs. The traffic count was carried out over 2 weeks at all of the locations apart from Preston Road and Lodge Lane, which were surveyed over a period of one week. The VRU counts were carried out over 4 weekdays, apart from at Lodge Lane and Preston Road (on the RR) where it was on one weekday.

2.12 The previous survey was carried out by vehicle cameras. That method did not pick up the use at any point over the full period. The Vectos survey was at specific

points on the network. Consequently, if there were pedestrians or equestrians at the survey points they would have been observed.

2.13 The results of the traffic survey are contained in Section 3 of DB PoE¹. The headline conclusions from the Baseline Survey are as follows:

- a. The level of traffic flow on all of the links is not disputed. It is now broken down into class of HGV as well as HGVs and other vehicles. The data shows that there are varying numbers of HGVs on each link;
- b. The speed data again is not in dispute. Speeds obviously vary, but none of the routes could on any sensible analysis be described as high-speed routes;
- c. The quantum of cyclists is not in dispute either with LCC or RAG. This clearly is an area where there is a good deal of leisure cycling. However there have been only three slight accidents in five years and none involving a HGV;
- d. The survey picked up very few equestrians (only 2, on Preston Road, throughout the survey periods). It is not disputed that there may be more at some times, and that there probably are more at the weekends. However, the evidence from the survey entirely accords with the evidence of Neil Stevens (NS) who has travelled these routes on very many occasions. The sensible conclusion appears to be that there are equestrians on these roads, but not many and certainly not many during the week. Again, it is important to note that there have been no recorded Personal Injury Accidents (PIAs) involving equestrians over the last 5 years. Any horse being hacked out on these roads at the moment may meet an HGV or a tractor. It would not be safe now to hack them out unless they could safely cope with such a situation;

and
- e. In respect of pedestrians the survey again picked up very few at the locations monitored.

2.14 RAG criticise the survey because it was taken outside the villages, but this misses the point. All the villages – Elswick, Inskip and Roseacre have footways on one or both sides. Although people walk through these villages, they are segregated from traffic when they do so. People cross the roads, but they do so safely. In terms of environmental assessment, the level of HGV movements proposed has no severe impact on severance, fear and intimidation, delay or amenity. The absolute numbers are far too low to have these impacts. Even with all 50 movements going through one route on a given day, that is still only 6 movements per hour (in either direction) during a weekday daytime, which could not give rise to any of those environmental impacts. However, the issue the survey was designed to pick up was the number of pedestrians walking outside areas with footways and where they are undoubtedly more vulnerable to traffic on the roads. The survey suggests that there are very few pedestrians walking along the roads outside the villages in these areas.

¹ CE/1/1.

Accidents

2.15 The appropriate period for considering the accident record according to the NPPG is 3 years, because it is not being suggested that this is a “high accident area”. However, Vectos have considered 5 years, as that remains normal practice². On the evidence it makes little difference if one goes back even further, but that would not accord with either policy or good practice.

2.16 The accident record over the last five years, for which records are available, suggests an average of 3 PIAs across all of the routes each year, with only 1 serious accident in the last 5 years. Not a single accident has involved HGVs or equestrians. Only 1 slight accident has involved a pedestrian and only 3 slight accidents have involved a cyclist. There have been no accidents involving an HGV and a VRU over the last 10 years on this part of the network.

2.17 The accident record is a highly material consideration. The fact that there have been no PIAs over the last 5 years does not mean that there will be none in the future but in assessing the likelihood of future accidents, the past is a very good guide. As NS accepted in cross-examination (XX), it is the best evidence before this inquiry. If there had been a poor accident record over the last 5 years, particularly concerning HGVs and/or VRUs then LCC and RAG would undoubtedly be relying very heavily on that fact. It is therefore entirely correct that significant weight can be put on the absence of relevant accidents. That absence indicates that these routes are capable of being operated safely.

2.18 Although this proposal creates large percentage increases in HGV numbers, the absolute numbers remain low. Therefore, the interaction between Cuadrilla HGVs and other vehicles or VRUs remains low. If Cuadrilla was introducing a large absolute number of HGVs, then the accident record might be less relevant, but that is not the case. The “dynamics” of the routes, as NS put it, are not being materially changed.

2.19 DB has not taken the approach that because there have been no HGV accidents, the proposal is necessarily safe. He has assessed each and every part of the routes against the risk to highway safety. The accident record is nevertheless a very important factor in assessing whether a location is safe. It is very unfair on DB to suggest that his consideration of VRUs is “tellingly brief”³. Any impact on VRUs has been considered at every location, but this does necessarily involve considering the likelihood of any conflict arising.

2.20 Even if one assumes the absolute worst case of sole use of one route by the maximum of 25 HGVs in each direction allowed by condition, over an 8 hour day, that is only 3 extra HGVs in each direction per hour or 6 per hour in total – one every 10 minutes.

2.21 In practice for most of the time the number will be much less than this, because of the use of three routes and the fact that for a large proportion of the project (88% of the time) there will be less than 25 two-way HGV movements per day.

²Both Neil Stevens (NS) and Gerald Kells (GK) accepted this in xx.

³Ben du Feu (BDF) Closing para 64.

Vehicle Generation

2.22 LCC have agreed the HGV predicted flows at Section 6 of DB's evidence. Some of these have been revised to reflect the evidence to date at PNR. This means that:

- a. For the vast majority⁴ of the days (88% under Scenario B⁵) the project will generate 24 two-way HGV movements per day or less. This means that if two routes are in use that day there will only be 6 HGVs in each direction on each route per day i.e. less than one per hour;
and
- b. For those parts of the project which generate the highest levels of HGVs, i.e. construction and restoration, the large majority of vehicles will be tippers and not articulated vehicles.

2.23 The issue of the level of traffic generation during the fracturing and EFT phases, which have not yet taken place at PNR has been raised. The calculation of levels of flow-back fluid traffic generation is set out in DB's PoE at paragraphs 5.58-5.62. This is based on the evidence presented by Mark Lappin (ML). The assessments are deliberately conservative and based on previous data as applied to the geology at RW. The Appellant's analysis of the quantum of flow-back fluid was accepted by the previous Inspector.⁶

2.24 In any event, even if the figure is wrong, the fracturing phase, for most of the time, involves 24 HGV 2-way movements or less⁷. Consequently, there is scope for a significant margin of error before the 50 movements per day cap is reached.

2.25 As far as traffic generation from any work to the DHFCS Inskip route is concerned, the levels of traffic are minimal. These works are anticipated to take approximately 3-4 days and generate a total of no more than 6 HGVs.

Generic Issues

2.26 In the context of route safety LCC is concerned about:

- a. visibility across third party land;
- b. forward visibility between passing places (PPs);
- c. the susceptibility of the PPs to flooding;
and
- d. the deliverability of some of the PPs including impacts on hedgerows.

2.27 The detail of highway improvements is to be achieved under a S.278 Highways Act agreement. The precise engineering details, including layout, materials and precise dimensions can only be determined at the S.278 stage with LCC highway

⁴DB proof Para 5.79.

⁵Scenario B assumes an Environment Agency permit to discharge surface water on site, i.e. the same permit as has recently been granted at PNR.

⁶IR 12.600-12.627.

⁷DB proof Table 5.23.

engineers on site. If during that process it becomes apparent that what is proposed can be improved by slightly greater road widening, then that can be delivered. The conditions ensure that what is delivered is substantially in accordance with DB's proposals as agreed with NS and certainly cannot provide for less than what was agreed.

2.28 All the points made by NS on the ability for HGVs to pass must be considered against the test of unacceptable impact on highway safety. In the unlikely event of two HGVs meeting at a narrow point on the roads this does not cause a highway safety impact because at all the key locations the speed data shows HGVs moving at relatively slow speeds and consequently if they were to meet it is highly unlikely that there would be an accident, let alone a PIA. The worst that would happen would be a slow manoeuvre and if the drivers slightly misjudged the movement some damage to wing mirrors.

2.29 At all locations the forward visibility is such that there is enough space for the two vehicles to stop and then manoeuvre past each other, if absolutely necessary by using the verge. If two HGVs meet on a narrow spot (or indeed an HGV and another vehicle) then the ultimate solution is that one or both of the vehicles will go onto the verge. The 6m width includes 500 mm for wing mirrors. In practice an HGV's wing mirror may over sail the hedge or verge giving more space. As a result, two HGVs would be able to pass with a carriageway width of 5.5m. If it is the hedgerow, which is over-sailed, then it is on third party land but that does not create a highway safety issue.

2.30 Whilst the verge is not a part of the carriageway, its use is a very common part of driving along rural roads and without disastrous consequences. The only highway safety impact that NS suggested was that it would put mud on the road. The amount of mud from use of the verge is minimal compared to the mud spread by agricultural vehicles. The Traffic Management Plan (TMP) provides that Cuadrilla will conduct regular inspections of the routes and will keep sweepers on standby to ensure that mud or other debris is cleared if necessary.⁸ If it becomes clear that vehicles are regularly going on a particular part of the verge, then the road widening could be extended in accordance with the conditions and the on-going surveys of the routes when used.

Views Across Third Party Land

2.31 There are several points on all three routes where visibility of oncoming HGVs depends upon views across hedgerows and fields which are not within highway land. This is a completely normal situation in rural England, where views needed for forward visibility or at junctions require the driver, particularly HGV drivers, to look across hedges to see oncoming vehicles. At the present time, the hedgerows are all appropriately maintained to allow visibility across them. There is no reason why this should change. It is in the farmers' and landowners' own interests to maintain the hedgerows appropriately, not just for good agricultural management but also to assist the safety and convenience of themselves and their employees on the roads.

2.32 In the unlikely event that the farmer, whether through neglect or to be deliberately obstructive, allowed a hedge to grow to a height that it was obstructing

⁸Traffic Management Plan (TMP) para 3.4.

views for HGV drivers, LCC has the power to take action under S.154 of the Highway Act 1980. The problem raised by NS was that it takes time to achieve a remedy under S.154.

2.33 However, the Appellant has agreed to enter into a Section 106 unilateral undertaking that includes a requirement to monitor and report on the height and width of the hedgerows so that if it appears that the hedge heights are becoming a problem LCC will quickly have notice. Furthermore, the system under S.154 is a 14-day notice period followed by 14 days for the landowner/occupier to take the requisite action. Hedges grow but they do not grow so fast within a few weeks. LCC has the power to cut the hedge themselves and Cuadrilla has committed to reimbursing LCC's reasonable and proper costs in doing so. The likelihood of a S.154 notice being taken to the Magistrates Court seems very slight.

2.34 Mrs Stringman (3/19) raised the restrictions on hedgerow cutting during the bird breeding season. This is a normal part of hedgerow management and is why hedges are usually cut before the beginning of April. It is clear from LCC's note that if there is a visibility problem during the bird breeding season, the hedgerow can still be trimmed but an ecologist has to check whether or not there are any birds breeding before the hedgerow can be trimmed.

2.35 The previous inspector was concerned about visibility across the fields at the Hand and Dagger junction (H&D) from Station Road and up Dagger Road. For the reasons set out above this concern cannot be supported on the evidence. There is no reasonable prospect of the visibility being blocked.

Forward Visibility

2.36 The need for appropriate forward visibility between PPs is accepted. The conclusions of a joint assessment of forward visibility between Cuadrilla and LCC are set out at CUA/INQ/015. Only the following passing places remain a concern to NS:

- a. Blue: PP5, PP6;
and
- b. Green: PP3, PP4, PP8.

2.37 The approach to forward visibility was that there needed to be visibility from PP1 to PP2, plus a distance in advance of PP1 for the HGV driver to decide whether s/he needed to wait in the PP for an oncoming vehicle to pass or could safely proceed along the road. This is provided at all locations except the above. The previous inspector's concern at IR12.470 has therefore been dealt with.⁹

2.38 NS's further Note on the subject is wrong for the reason explained in our Note CE/INQ/026. The critical point is that the driver can see to the next PP. RAG is concerned that the driver will not know where the next PP is, but the two HGVs would see each other and assess whether they need to stop. If there is an issue this would have been addressed in the driver App¹⁰. The driver would have been told where the wider sections of road are.

⁹BDF closing para 76.

¹⁰ A computer programme using satellite navigation that could be developed and made available to all Cuadrilla drivers to alert them to the location of route features such as passing places.

2.39 In respect of those five PPs, it is still the case that even without the standard advanced visibility, in many cases the HGV will stop at the passing place as the driver will be proceeding with caution and looking out for other HGVs approaching in the opposite direction.

2.40 However, if the passing place is missed, in each case there is sufficient width within the verge, by reference to the hedge to hedge widths, for two HGVs to pass by using the verge. In order to assess whether any material, let alone unacceptable, road safety risk arises from this situation there are two key considerations. Firstly, the likelihood of the situation occurring. There would need to be two HGVs moving in opposite directions at precisely the point where the first one misses the passing place. Given the relatively low number of HGVs both on these parts of the routes at the moment, and the low traffic generation from the development, it will be extremely rare for this situation to arise. Secondly, if it does arise the two HGVs will have plenty of time to see each other and slowdown in order to pass and so the risk of PIA is miniscule.

2.41 It is notable that LCC at para. 37 in closing uses the word “unsatisfactory” for the alleged lack of visibility. But even if this were correct, unsatisfactory does not equate to an unacceptable impact on highway safety.

Flooding

2.42 Mr Stevens raised a concern that some of the PPs are in places where there is some evidence of flooding now. Fundamentally this is a question of detailed design following a highway engineer’s detailed consideration.

2.43 In several places DB’s site visits have revealed that localised flooding appears to be a consequence of blocked gullies, as opposed to any more fundamental issue. As part of the baseline highway condition survey to be carried out in advance of the works, the existing drainage will be reviewed, and any blocked gullies or drains will be cleared.

2.44 The minimum gradient for a road to be designed to allow water to flow off the surface area is 1:200. In most if not all of the road widening locations, this gradient can be achieved and therefore there will be no exacerbation of flooding at those locations. Any new carriageway will be designed to the same gradient as the existing. To the degree that there is a concern that the total hard surfaced area is increased, the total additional area will be minimal¹¹.

2.45 The other solution is to use permeable asphalt on all or some of the passing places. In principle this could be used and given its very high specification, it would provide an appropriate solution.

2.46 NS accepted that there will be a solution to a flooding problem at any particular location, it is ultimately a question of cost and detailed design. In any event the minimal amount of additional flooding that might be caused, in the absolute worst case, would not be an unacceptable highway safety issue.

Deliverability

2.47 NS was concerned that in constructing the PPs there may be damage to

¹¹DB App Tab 2.5 (CE1/4).

hedgerows. However, protecting the hedgerow is ultimately a question of careful construction. If necessary, this can be done by hand digging the work to ensure root protection. This is ultimately a question of cost and Cuadrilla will pay the costs of the S.278 works. If hedgerows are damaged, then Cuadrilla has agreed under the S.106 to establish a fund for hedgerow replacement costs that any landowner can draw upon.

Risk Assessment

2.48 The Appellant has assessed the risk to highway safety at every point along the routes. Both the methodology and the assessment carried out by RAG should be given very little if any weight because its methodology is not supported by any guidance or professional document. Its risk assessment is totally flawed because it does not take into account the following critical matters:

- a. The speed data;
- b. The accident data;
- and
- c. The proposed Mitigation – whether physical works or TMP provisions such as banks-men.

2.49 Thomas Hastey (TH) accepted that he had not read or considered the Baseline Traffic Data when preparing his evidence. At a number of junctions and bends TH draws attention to the fact that HGVs may have to cross to the opposite carriageway. It is normal for HGVs to use the opposite carriageway in rural areas, whether to pass parked cars in a village or to get around junctions and bends. As long as there is sufficient visibility the oncoming traffic simply has to wait – a standard manoeuvre. Drivers also adjust their speed to deal with road conditions.

2.50 TH raised a generic concern about the weight of Ordinary Goods Vehicles group 2s (OGV2s) impacting on the edge of the highway and leading to failure of the edge and the danger of the vehicle overturning. There is a complete lack of evidence of such events actually occurring on the network at the moment. However, Cuadrilla will seek to ensure that this does not happen and condition 12B requires a pre-commencement condition survey of the highway. The very purpose of this is to examine in detail the road surfaces and edge of carriageway condition and then repair any parts that create a safety risk. There will also be on-going monitoring along the route so that if an area of the verge, e.g. on Dagger Road, becomes rutted, then maintenance works can and will be undertaken. Given that Cuadrilla vehicles will be using this route, they are not going to ignore any damage to the highway verge, if this did give rise to the kind of risk raised by TH.

2.51 If there are issues, e.g. at Molly's Plantation on Station Road or on the southern two-way section of Dagger Road, then appropriate measures can and will be taken. The road edge can be repaired, new sub-base coursing can be laid, and if necessary and appropriate, kerbing could be installed to protect the edge of the carriageway. Cuadrilla will take all steps necessary to ensure that its HGVs can operate safely.

The Routes

The Blue Route

2.52 The BR is the same as previously considered. It starts at the A583 at Clifton. There is no history of accidents involving HGVs on the section along Clifton Lane, which is heavily used by HGVs going to the Westinghouse Plant, including at the Windmill Pub junction.

2.53 To the north, on Station Road, there is good visibility in both directions at the railway bridge, where there is a footway for pedestrians. If an approaching HGV either sees another HGV coming or sees an equestrian on the bridge, it can simply wait until the bridge is clear.

2.54 There are then two bends with excellent visibility across the fields. If one HGV sees another oncoming, then there is both space and time to wait and pass before or between the bends.

2.55 The next section runs beside the Canal through a wood. There is good forward visibility along this stretch of road and vehicle speeds are low, providing the ability for HGVs to slow and pass each other. There is a kerb and fencing on the east side of the road, such that there is no material risk of an HGV falling towards the canal.

2.56 The mouth of the Station Road/Treales Road junction is very wide, with room for HGVs to pass if cars are parked adjacent to the canal. Most canal related activity will probably be at weekends or in the early evenings. However, if there are particular daytime activities, then they could be communicated through the Community Liaison Group and where possible the Appellant's operations could avoid the Blue Route.

Hand and Dagger Junction

2.57 The Hand and Dagger junction was a location which was of considerable concern to the previous Inspector¹². There appeared to be two concerns – whether two HGVs approaching the junction will be able to manoeuvre past each other (LCC) and RAG's concern about HGVs overturning. The chance of HGVs having to reverse is extremely unlikely as a simple matter of timing.

2.58 However, there is clear visibility across the fields up and down Dagger Road. Any HGV emerging from Station Road and turning left would see an HGV coming down Dagger Road and either wait, or more likely choose to move forward onto Treales Road. The vehicle coming south would then wait in the passing place (PP1) at the south end of Dagger Road. Drawing B24 (CE/INQ/006) shows how the vehicles could manoeuvre past each other. If there is only an HGV at the exit from Station Road then there would be no need for that HGV to move into the opposite carriageway on Treales Road, when doing the left turn manoeuvre, because it can use the centre of the mouth to Station Road instead. This junction is very close to the bridge over the Canal immediately to the east. Vehicles from the west will be slowing for the junction and the bridge, vehicles from the east will be necessarily going slow as they come across the bridge.

2.59 TH's concern about overturning HGVs is misconceived, and the previous Inspector was wrong to accept it. As DB explained there is no "*adverse camber*" at

¹²IR12.456.

this point. The carriageway is virtually flat and wide. HGVs turning right off Treales Road into Station Road will necessarily be going slow. Neither DB nor NS had any safety concern about it. There is no evidence of a single HGV accident at this location, let alone one of a vehicle overturning. It would be a serious mistake to give TH's evidence weight because he has driven OGV2s. His "assessment" of safety risks is massively overstated, and completely contrary to the actual empirical data of no HGV accidents at any of these various locations.

Dagger Road

2.60 The previous Inspector was also concerned about the ability of vehicles to pass on Dagger Road. Vectos have proposed a solution with signal controls to ensure that no two HGVs meet on this section of the route. The signals will only be triggered by the presence of two HGVs travelling in opposite directions, so they would not otherwise delay other vehicles. A number of concerns have been raised in respect of the signals but none of them stand up to scrutiny.

2.61 NS suggested that drivers will be confused or frustrated and will jump the lights. No car will be kept at the lights unless there is an HGV, which has triggered the lights, so it is very difficult to see why a driver would be confused. As NS agreed, most drivers along these roads are familiar with them, and it will be both obvious and well known what the lights are doing.

2.62 If there is a concern about agricultural vehicles using the fields, Moss Lane East (MLE) and the access to the agricultural contractor site, then their vehicles could be tagged within the signal system in order to trigger the lights. This issue only really arose following the Inspector's site visit and subsequent question and the receipt of Mr Sanderson's letter. There is an obvious solution that would involve putting the accesses into the signalisation section, but this is a detailed matter. The desired outcome is not a zero chance of an HGV meeting another HGV but to minimise the risk in a proportionate manner. LCC and RAG say that HGVs may meet other vehicles but that happens at the moment – there are 60 two-way HGV movements on Dagger Road at the moment. Consequently, vehicles meet HGVs and pass without PPs at the moment. The Appellant does not acknowledge a problem during harvest time, it is trying to be sensitive to local concerns.

2.63 Cyclists, pedestrians, equestrians or cars who travel along Dagger Road when the lights are not operating and meet an HGV would be in precisely the same situation as happens at the moment. Dagger Road has good visibility but is not a fast road (average speed of 21-23 mph) ¹³ so there is time and space to pull over, and if needed, use the verge.

2.64 NS raised several issues concerning the design of the lights. These are all perfectly capable of being dealt with. The standards that the LCC Safety Assessment uses are standards for motorways and trunk roads. It is inappropriate to rely on them to refuse a proposal involving an existing road, particularly where the speeds are so much lower than on a trunk road. In any event, the 600mm offset for the signal can be achieved by either cranking the signal shaft, or slightly moving the ducting.

2.65 Alan Edwards (AE) questioned DB about vehicles turning out of Moss Lane East (MLE) into the signalised section. Firstly, the only HGVs that would be using MLE

¹³CD7.2 table 2.9.

would be agricultural vehicles familiar with the area. There is excellent visibility both north and south at the junction so a vehicle turning out will see any HGV. If LCC are really concerned about this point, then MLE can be included within the signalised section, although this seems totally unnecessary.

2.66 TH suggested that there would be a major risk of “catastrophic” accidents if large articulated lorries came off the edge of the carriageway and then tipped over. There is no evidence whatsoever of this risk occurring on these routes. If the edges of the roads, or the junctions are anywhere near as dangerous as TH suggests then there would be an accident history. TH's photograph of a tipped over articulated vehicle¹⁴ is not accompanied by a precise location or the circumstances of the incident nor the accident history of the location.

Salwick Road

2.67 Although there is visibility between passing places, it is agreed that some of the bends at the southern end provide insufficient decision time for HGVs ahead of the passing places, in the unlikely event there was to be an oncoming HGV. However, there is sufficient verge to utilise either side of the passing places if HGVs miss them. The potential for further verge protection could be put in place as part of the on-going monitoring of the highways.

Inskip Road/Salwick Road Junction

2.68 The previous Inspector was concerned about vehicles turning in and out of Salwick Road with somewhat restricted visibility by reason of the adjacent Wood.¹⁵ In highway safety terms that concern is not justified. The issue recorded by the previous Inspector and repeated by TH at this inquiry is that an oncoming vehicle on Inskip Road would not realise which side of the road the HGV was on.

2.69 There is good visibility in all directions for HGV drivers who will therefore be able to see any oncoming vehicles. For other drivers on Inskip Road there is sufficient time for them to see any HGVs doing the manoeuvre. They will therefore be able to slow down appropriately. Even if the driver does not fully compute where the HGV is at the junction, they will fully appreciate the need to slow down because there is an HGV manoeuvring at the junction.

2.70 TH's photographs ¹⁶ show very clearly the height of the HGV driver compared to the hedges, but also a car driver. This photo makes it obvious that at all the locations where there are views across hedges, or from cars looking towards an HGV, the size of the HGV is a key issue.

2.71 LCC did not raise any visibility concerns at this junction.

DHFCS Inskip

2.72 The conditions require the Inskip site to be available for use throughout the period of the development, save during the EFT phase, when HGV generation is extremely low (6 per week) or flooding or a national emergency. If DHFCS Inskip is unavailable for more than 5 days, then no HGVs are allowed to access the appeal site,

¹⁴RAG/1/4 p.31.

¹⁵IR12.462a.

¹⁶RAG/005.

apart from during EFT. Any parts of the route through DHFCS Inskip, which need improvement, will be improved before any other works on the site commence.

2.73 There is an agreement in principle with the MoD, and it is entirely clear that if for whatever reason the Inskip site cannot be used, then the development cannot proceed. That is a risk for Cuadrilla, it has no impact on highway safety.

2.74 Mr Rimmer's concern about the height of vehicles was misplaced. There is agreement with the MoD for Cuadrilla to lift any necessary cables before the route is used.¹⁷

2.75 NH raised great concern about entry and egress to the RW site. The TMP provides for banks-men to be used as appropriate and there is no highway safety issue at this location.

The Red Route

A585(T)/B5269 Thistleton Road Junction

2.76 The RR leaves the primary road network at the junction of the A585(T) with the B5269. This junction has been the subject of detailed correspondence and discussion with Highways England (HE). Vectos have considered the junction in detail and have proposed improvements in terms of widening the junction mouth to improve turning space for HGVs manoeuvring in and out. These improvements will be secured through a S.278 agreement.

2.77 HE's position on the junction¹⁸ is as follows:

- a. In terms of the frequency of all HGV and abnormal load movements, HE is satisfied that there would be no severe impact on traffic movements at the junction (para. 33);
 - b. HE is satisfied that with the revisions set out in Drawing 172806 A 02 Rev A, the junction could physically accommodate all traffic movements safely (para. 34);
- and
- c. HE says that it is not in a position to formally agree the scheme or confirm that it is deliverable, as this will be subject to a Stage 1 Road Safety Audit; search for statutory utilities that would be affected by the proposed improvement; and an audit of compliance with DMRB standards.

2.78 It is apparent from this that HE is substantively satisfied with the working of the junction but is not in this letter prepared to formally state that it approves the works proposed because that is subject to further discussions on the detailed design. The additional work required by HE (point c above) has been undertaken and there are now no reasons why the scheme is not acceptable at this location. If HE formally agrees the scheme, before the decision is made, the Appellant will inform the SoS.

¹⁷CE/Inq/24.

¹⁸DB App 6.

Thistleton Road Junction

2.79 There is a bend on Thistleton Road at the entrance to the village. This is a location where there is good visibility across the hedgerows in order to see HGVs coming in each direction. GwTPC raise concerns about HGVs leaving the RR and going through Thistleton village to an alternative junction with the A585(T) further south. This can be dealt with by the TMP and monitored by Automatic Number Plate Recognition (ANPR) or another equivalent system. The Council have raised a concern over ANPR because of possible data protection issues, but it should be noted that ANPR is being used on a number of other projects (including Hinkley Point C¹⁹). In any event alternative systems can be used if necessary. Thistleton village is in a Conservation Area but given that the HGV route only goes along the edge of it, there will be no impact on the character or appearance of the Conservation Area.

Elswick Double Bend

2.80 When the HGVs are approaching Elswick, there are two bends, but again visibility is reasonable across the corner so that one HGV can wait for another coming around the corner. Visibility is good along the High Street so that an in-bound HGV driver would see all other vehicles approaching. It is correct that HGVs may have to wait while other vehicles go around parked cars, but again this is a completely normal manoeuvre. The baseline data shows a material number of HGVs going down Elswick High Street on an average day²⁰, and there is no evidence of any safety problems. It should be remembered that this road is a local distributor road. The need for an HGV to wait before it manoeuvres around parked cars in the High Street is not a safety issue.

Elswick High Street

2.81 A large number of residents in Elswick gave evidence as to near miss accidents on the High Street and problems with HGVs using the Fox Brothers site at Gorst Farm. It is very difficult to assess the evidence in relation to "near misses". The only objective and verifiable data is the accident data. There does appear to be a problem with vehicles from Gorst Farm at the very least in terms of local concern. Again, it is impossible to know how many vehicle movements there are. What can be said is that it is not a lawful use and there are no conditions governing hours, vehicle movements or requiring a TMP.

2.82 At the corner with Roseacre Road, RR vehicles would see any Cuadrilla vehicle emerging from the GR and would be able to stop and wait, whether or not there are parked cars.

Lodge Lane/Preston Road

2.83 The RR then involves travelling along Lodge Lane and Preston Road. There are bends along this part of the route and places where the roads narrow at a bend. Consequently, HGVs may have to slow or even stop to allow another HGV to come around a bend. TH seemed to be questioning the accuracy of the tracking drawings,

¹⁹Mr Bird oral evidence.

²⁰CD 7.2 table 2.6.

including at the junction of Lodge Lane and Preston Road. This is not sustainable. TRACK is an industry standard piece of software routinely used in Traffic Assessments (TAs) and at Inquiries. The analysis has been done taking into account the largest OGVs i.e. OGV2s. Allowance has also been made for wing mirrors in the assessments. This is not always shown in the tracking drawings, but it has been considered by leaving a margin between the vehicles.

2.84 Cuadrilla is proposing a number of PPs along this stretch of road. NS's position, as set out in Table 4.44 in his proof is now amended in the agreed Note²¹. It is that there are now no PPs along the RR which do not provide adequate forward visibility.

Inskip

2.85 The RR passes St Peters Primary School, at Inskip. The hours condition provides that the RR cannot be used other than between 9am and 3pm during school term time. Therefore, there will be no impact on school drop off or pick up times, nor will it impact on any children who go to the breakfast club or after school activities. Children who walk to the church do so at the moment. There is a pavement through the village, and the children have to cross the road at the moment and do so safely.

2.86 Mr James (3/10), who lives at Lodge Court Inskip, was concerned about his entrance onto the B5269. The very precise location falls between PPs R08 and R09. The additional plan, which includes visibility splays, shows that there is no visibility issue at this point (CE/INQ/022).

2.87 There is a sharp bend in Inskip with a brick house on the corner. There is limited visibility around this bend. In practice, vehicles come around that corner very slowly and cautiously. HGV drivers will be very aware of the manoeuvre required and the need to be careful about on-coming vehicles. It is because of this low speed, and indeed the likelihood that drivers of HGVs do stop before proceeding around the corner, that a convex mirror would help. However, if LCC as Highway Authority disagrees then it is entirely a matter for it.

2.88 The tracking diagram shows how HGVs can manoeuvre around this corner safely²². There is also enough space for an HGV to go forward slowly and stop if there is another HGV coming. Consequently, they could manoeuvre past each other²³. In the unlikely event that HGVs do meet and have been going too fast, then the worst that would happen is a minor vehicular scrape which is not a highway safety concern.

Derby Arms Junction

2.89 The tracking diagram shows that the Preston Road/Higham Side Road junction can be manoeuvred around by two HGVs²⁴. There is a footway on Preston Road, with a verge to further protect any pedestrians. There is hard standing opposite the Derby Arms, which is highway land, ensuring that HGVs can wait to pass each other.

²¹Cua/Inq/15.

²²DB App H RO9.

²³CE/Inq/27.

²⁴CE/inq/004.

2.90 TH is very concerned about this junction, but the evidence does not support that concern. There is very good visibility both coming out of Higham Side Road, and along Preston Road in either direction. A driver will have plenty of time to slow down if there is an HGV manoeuvring in either direction.

Higham Side Road

2.91 There is a pre-school on Higham Side Road, but there is no evidence that anyone, even a parent with a child, walks there. It is some 800m from the edge of Inskip village.

2.92 There are parts of Higham Side Road which are narrow, but there is good visibility both along the straight sections and across the hedges on the bend.

The Green Route

Elswick High Street/Roseacre Road Junction

2.93 The GR separates from the RR at the junction in Elswick (High Street/Roseacre Road). The track diagram shows that this junction can be manoeuvred by two HGVs. Vehicles would also be able to see each other. If there are cars parked, HGVs may have to wait but that is not a safety concern.

Roseacre Road

2.94 There is a playground on the east side of Roseacre Road. However, this has been considered in DB's evidence and HGVs go past playgrounds as a standard part of any highway network, it could not possibly be said that such an interaction caused an impact on highway safety. RAG is also concerned about school children waiting for school buses, comparing the situation on the GR with Lodge Lane on the RR²⁵.

2.95 Roseacre Road, from the edge of Elswick to Roseacre village, does involve narrow sections and bends. However, there are some important points to consider in respect of this road. There are few OGV2s (6 two way per day) on Roseacre Road at the moment. A high proportion of the total numbers of recorded HGVs are agricultural vehicles. This means that the chance of a Cuadrilla vehicle meeting another HGV on Roseacre Road at one of the sections where it is too narrow to pass is very low.

2.96 The local residents through RAG and individually, argued strongly that there were many equestrians and pedestrians on the road. The survey for VRUs on Roseacre Road was carried out on 5 days in the summer,²⁶ which is the period that one would expect to find the maximum number of such users. RAG argues that the survey was carried out in the wrong place and should have been between Roseacre Village and Elswick. It is unfortunate that this wasn't raised with Vectos last summer, when the camera could have been moved. However, the evidence from the camera between Roseacre and Wharles indicates that there were very few pedestrians. Although it is reasonable to say that there is no obvious "destination" in Roseacre or

²⁵RAG closing para. 82. The difference is that Lodge Lane is a much faster location, but parents let their children wait for the bus there at the moment. The position in Elswick or Roseacre village will be much safer than Lodge Lane. This merely gives a sense of a necessarily acceptable level of risk.

²⁶CD7.2 para. 3.1.

Wharles, this survey does indicate the low number of leisure walkers on the road.

2.97 GK suggested that people would be walking north of the village on Roseacre Road to get on the Public Rights of Way (PROW) network. However, this is simply not correct. The only access to a PROW is at the bend north of the village, to where there is a footway. In terms of people walking from Roseacre to Elswick, this is a 5km round trip along a road that has existing traffic. Of course, some residents may choose to do this walk but it seems extremely improbable that this is a “key pedestrian route” as GK suggested. If residents are walking to Saswick House Farm tea rooms, then there is good visibility between the village pavement and the Farm.

2.98 There are three locations where it is agreed that there is insufficient forward visibility from one PP to the next (PP3, PP4 and PP8). However, in each of these locations, if the passing place is missed (and as noted above this may not be the case, because HGV drivers will be proceeding with caution), there is sufficient space on the verge for two HGVs to pass, in the event that they were to meet. NS accepted in cross examination (Xx) that HGVs would “crawl” past each other.

2.99 It has been suggested that the HGV driver may not know where the next PP or road widening is. However, as set out in the TMP, a specific satellite navigation application could be developed so that drivers are fully aware of where passing places on the routes are.

Traffic Management Plan and Conditions

2.100 The conditions require that a TMP be in place and agreed by LCC. This means that LCC have complete control (subject to reasonableness) over what is in the TMP. There are very clear provisions about its monitoring and enforcement. NS is concerned that clauses in TMPs often cannot be enforced. However, in this case the TMP is highly specific, with clear monitoring methods and reporting duties. It has “teeth” because Cuadrilla will be obliged to take specific actions with contractors if there are breaches and because the specificity means that LCC can take enforcement action if there are breaches. A breach of the TMP will be a breach of the condition.

2.101 In terms of monitoring, the use of the routes will be done by ANPR or some equivalent technology, such as vehicle tracking. This ensures that if vehicles diverge from the three routes, Cuadrilla will know and will be under an obligation to inform LCC. Cuadrilla will also be under an obligation to raise the breach with any contractor and will, if the problem persists, terminate the contract with the relevant supplier or contractor. If there are breaches, then LCC can take enforcement action and Cuadrilla could face a very substantial fine.

2.102 The most important terms of the TMP and the conditions are as follows:

- a. Use of the three routes. All three routes must be available at all phases of the development other than EFT;
- b. Availability of DHFCS Inskip throughout the use of the RR and BR;
- c. Daylight hours of use and no use on Saturday or Sunday;
- d. Maximum number of 50 two-way vehicles each working day;
- e. Driver induction and education;

and

- f. The use of the App to ensure that drivers have full information on the layout of the three routes, including the passing places and any other specific features.

2.103 If there are periods when only one route is available then Cuadrilla would bring vehicles into the site, unload and then send them out. It would make no sense for HGVs to be brought onto the rural network and then for them to have to wait to come into the site. As has been the case at PNR, if there are access problems because of protestor activity, there are places well beyond the rural roads where HGVs can be held until they are called forward. The TMP provides that drivers will be told an hour before their booked time of arrival if there are any problems on the network,

2.104 The conditions, the TMP and the assessments have all been predicated on the use of alternative routes, save during EFT. Therefore, Cuadrilla accepts that the appeal could not be allowed on the basis of only one route being allowed. However, if the SoS concludes that one of the routes does have an unacceptable impact on highway safety but the other two do not, then the appeal could be allowed on the basis of two routes. This would preserve the operational flexibility and could only reduce environmental impacts because the assessment was carried out on the basis of impacts from 50 movements on each route individually. There is therefore no legal or evidential reason why the appeal should not be allowed on two routes rather than three.

2.105 There is provision in the conditions for Cuadrilla to bring in HGVs outside of the HGV hours on 9 occasions. This is essential for the operational flexibility on the site, particularly in the light of potential protest. At PNR it was necessary to bring in the drilling rig at night to avoid the potential for protests to stop its movement and to minimise impacts on the community. The proposed condition merely mirrors that at PNR. Its environmental impact would be minimal as it is only 9 occasions in 6 years, and the time that a convoy would take to pass a property is only a very few minutes.

2.106 Much emphasis was placed by NS in arguing that driver education would be of limited effectiveness. However, all HGV drivers are trained in what they do and will be aware of the issues that arise on rural roads. Drivers of articulated lorries will have passed a special driving test and will be very familiar with the use of mirrors, the peculiarities of reversing an articulated lorry and the need to drive round VRUs with care. Additionally, a detailed driver education programme is set out in the TMP ²⁷ and will be implemented. As well as the safe way to drive around vulnerable users, videos will cover the nature of the route so that drivers can be familiar with the nature of the roads and any particular issues that arise.

2.107 NS argued that little weight could be given to the provisions in the TMP, particularly on routing choices, because the police could order Cuadrilla vehicles to go down different routes. Much reliance was placed on what had happened at PNR. It is correct that there have been several occasions when vehicles coming out of PNR have been told to turn right by the police. However, it is important to appreciate that turning right under police order is not a breach of the TMP, it is provided for. Additionally, there is an obvious reason for the police to tell drivers to turn right out of PNR. It is the quickest way back to the M55 and away from the protest area.

²⁷TMP annex.

2.108 The position is entirely different at RW. Firstly, there are alternative ways out of the RW site, which fall within the TMP, i.e. left on the GR or right and into the Inskip site on the BR and RR. There is therefore no reason for the police to tell drivers to breach the three routes. Equally there is absolutely no reason for the police to tell drivers to use any other routes in the wider area, there would be no logical reason to do so.

2.109 If protests block access on to the site, then again there is no reason for the TMP to be breached. Cuadrilla would stop HGVs coming onto the rural road network and hold incoming vehicles at one of the holding locations. If the HGV is already on the rural road network it might simply have to stop at some locations but it is not going to access the site by any other routes. Equally, if protestors limit the ability of HGVs to leave the site, they will either have to simply stay on the site or leave by one of the proposed routes. There is again no reason for them to be sent on some alternative route. Consequently, the experience of PNR in this respect is not applicable to RW.

Protests

2.110 Lancashire Constabulary has set out its position²⁸. It says “*While the likelihood of protestor activity ought not to be a reason to refuse permission, the prospect of such activity and its potential impact on safety and the local community ought properly to be reflected in any traffic management plan...*” Cuadrilla entirely agrees with this statement.

2.111 Each of the Police concerns in that letter have been complied with:

- a. Provision is made for specific convoys outside of the usual working hours. 9 such convoys are allowed under the conditions;
- and
- b. The hours of HGV movements reflect the hours sought by the Police, including ensuring that the hours only cover one Police shift and hours are limited to daylight hours.

2.112 If protestors seek to block passing places, then the Police have the power to remove the vehicles. If there was a persistent issue at any particular location, then LCC could introduce parking restrictions at that point.

2.113 It is undoubtedly the case that protestor activity at PNR has caused considerable disruption to residents and commuters in the area. However, protestor activity has been managed at PNR in a way that has protected highway safety and there have been no injuries incurred as a consequence of HGV movements into or out of the PNR site. The important point from ML’s evidence (and his reference to the North Sea) is that Cuadrilla brings material onto the site in advance of when it is needed, so that protestor activity does not stop the operations taking place.

Conclusions

2.114 The SoS has set a narrow remit for this inquiry – impact on highway safety

²⁸LCC1/8.

and the NPPF sets a high test of unacceptability. There is no doubt about the local concerns about the use of the routes for HGVs. Such concern is not in the least surprising, a controversial use involving the introduction of HGVs into a rural area is never going to be popular.

2.115 However, the only issue is whether there is an unacceptable impact on highway safety in the light of the amended scheme. The answer to this question is a clear no. This road network is operating safely now, and it is accepted by both LCC and RAG that it is not a high accident area. Although the proportionate increases in HGV numbers from the proposal are high, the absolute numbers remain between low and very low, even for a rural road network. There is simply no evidential basis for finding that there is a severe impact on highway safety.

3. THE CASE FOR LANCASHIRE COUNTY COUNCIL

3.1 The inquiry has been re-opened to consider only the highway safety issues which arise, with the Secretary of State minded to grant permission subject to being satisfied that those issues can be satisfactorily addressed.

3.2 Cuadrilla has now revised its proposals for accessing the site and advances a fresh routing strategy by which use will be made not just of the BR but also the GR and the RR. The company's mitigation proposals have also evolved (and continued to undergo incremental change in the lead up to, and during, this inquiry).

Planning Policy

3.3 Paragraph 108 of the Framework provides that plans and decisions should take account of whether:

- a. safe and suitable access to the site can be achieved for all users;
and
- b. any material impacts from the development on the transport network, or on highway safety, can be cost effectively mitigated to an acceptable degree.

3.4 At para. 109 it goes on to say that development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

3.5 The first point above relates to "access" to the site. The word "access" as used here should include not just the immediate access to a site from the highway but also the highways themselves leading to the site in question. Access must not just be safe, but it must also be suitable. Safety and suitability are inevitably interrelated. It is hard to conceive of any unsafe access not also being unsuitable. Additionally, an access which is unsuitable may well have the potential to generate safety concerns.

3.6 Route suitability is therefore relevant, especially since the introduction of two new routes (R&G) which were not considered at the last inquiry. LCC consider each of the three routes to be unsuitable on the basis of a combination of factors, including the restricted width of large lengths of the roads, the bends the roads present to large vehicles, the junction manoeuvres they involve and the presence of vulnerable road users. The extent of the mitigation proposed on each of the routes serves to highlight

their unsuitability.

3.7 The previous Inspector found that the BR did not provide safe and suitable access to the site²⁹ (having taken account of the mitigation then proposed). LCC considers that the BR remains unsuitable even after the revised mitigation now proposed. It also takes the view that the GR and RR are unsuitable not just before mitigation is considered but also after regard is had to it.

3.8 It is also necessary to consider the requirement of paragraph 109 of the Framework that refusal should only be forthcoming on transport grounds if there would be an unacceptable impact on highway safety or where the residual cumulative impacts on the road network would be severe. As to the nature of the impacts engaged by this part of paragraph 109, the key impact in the present case is highway safety. There is no definition of "*unacceptable*" in the Framework or in the National Planning Practice Guidance (NPPG). That is a matter for the decision maker. However, it is submitted that, if the traffic generated by a development causes a significant reduction in highway safety on the routes served by that development, its impact should be considered unacceptable. And if it be the case that unacceptability involves consideration of whether risks of personal injury (as opposed to other) accidents are significantly increased, that test is met when applied to each of the routes in question. As NS pointed out³⁰, any accident involving a cyclist and an HGV has the potential to be severe and a severe accident would be unacceptable. The same could equally be said of any accident between an HGV and other vulnerable road users, be they pedestrians or equestrians.

3.9 As to the question of the meaning of "*residual*" impacts on the road network, it is accepted that this should be understood to refer to the impacts which are left after mitigation has been considered. That is the sense of the relevant bullet point in that the word "*residual*" follows on from the reference to improvements which cost effectively limit material impacts, that is, mitigation. LCC does not consider that the proposed mitigation adequately addresses matters.

3.10 The notion of "*cumulative*" impacts also warrants consideration. An accumulation of adverse effects along a route could reach the threshold of unacceptability, even if it were to be the case that any particular impact considered in isolation might not do so. Use of each of the routes by the significant number of HGVs that the development will generate gives rise to a series of adverse effects all of which may bear on safety. These include:

- a. the need for HGVs to stop or give way in the carriageway in order to allow other such vehicles to pass;
 - b. the need for the larger articulated lorries serving the development to encroach into the opposite side of the road when traversing various bends and junctions;
 - c. the reliance in certain cases upon the use of highway verges rather than the carriageway;
- and

²⁹IR para. 12.500 (CD 4.2).

³⁰Xx.

-
- d. the increased interaction of HGVs with vulnerable road users on narrow roads.

3.11 Policy DM2 of the JLMWLP requires that appropriate information is provided to show that impacts that would cause demonstrable harm can be eliminated or reduced to acceptable levels. It would be reasonable to approach this in line with the requirement in paragraph 109 of the NPPF that in order to be acceptable, the adverse transport impacts of a proposal in the context of highway safety should be reduced below levels considered to be unacceptable. The routing strategy now proposed by Cuadrilla fails that test and Policy DM2 is thus breached.

3.12 In LCC's opinion each of the three routes is unsafe and unsuitable. The Inquiry and the decision-maker could reach an intermediate conclusion. LCC submits that if one route were found to be unsafe and unsuitable, the result should be dismissal of the appeal and that that should be even more the case if two routes were found to be unsafe and unsuitable. The appeal has been pursued on the basis of a three-route strategy. Notwithstanding the worst-case assessment adopted for each of the routes, the case has been presented by Cuadrilla and the evidence put forward by it has been formulated on the basis of a three-route strategy. It is, in part, the flexibility provided by having three routes available, and against that background, that Cuadrilla has mounted its argument that, taking an "average" case there would, on a typical day, be usage by two routes (with the attendant consequences for the volume of site generated traffic on any particular road). Were there to be only two routes to choose from because one had already been ruled out by the decision-maker, that approach would not be available. Moreover, the traffic management plan has been formulated on the basis of three routes and the conditions have been drafted accordingly. Fundamentally, if any one route were to fail the necessary policy test of being safe and suitable, the routing strategy would be changed to such a significant degree that it would not be appropriate to allow the appeal on a different basis.

Baseline Conditions

3.13 The baseline conditions are a matter of agreement between LCC and Cuadrilla. There are two particular matters of note which follow from that. First, the proposed routing strategy for the development brings about significant increases in the volume and type of HGV traffic, which will use the roads in question on weekdays. Considered by reference to the appropriate worst case assessment (of 50 two-way HGV movements per day) the figures reveal increases of HGV traffic of 104% on Roseacre Road, 88% on Salwick Road, 84% on Dagger Road, 62% on Station Road, 48% on Preston Road and 42% on Higham Side Road³¹. Approached on the same worst-case basis, OGV2 usage of all road links in the assessment would more than double with some increases of much greater magnitude, such as on Roseacre Road where the present 12 hour two-way weekday average flow of OGV2s is only 6 such vehicles, and on Dagger Road, Salwick Road and Higham Side Road where the corresponding figures for existing usage are 10, 12 and 13 respectively³².

3.14 Secondly, the baseline conditions reveal that there is significant cycle usage on most of the links in question during an average weekday. The data shows an average

³¹See tables 4.3 to 4.5 of the Revised Environmental Transport Assessment forming Appendix 18.2 to the Environmental Statement Traffic Addendum (CD 6.2).

³²See table 4.3 of the Baseline Transport Conditions Report (CD 7.3) and tables 1.1, 1.2 and 1.3 of the Revised Environmental Transport Assessment forming Appendix 18.2 to the Environmental Traffic Addendum (CD 6.2).

weekday two-way cycle flow of 92 on Elswick High Street, 86 on Roseacre Road, 56 on Higham Side Road, 54 on Station Road, 53 on Salwick Road, 47 on Lodge Lane and 43 on Dagger Road³³. Observed usage peaks for two-way cyclists on these routes on a weekday are, respectively, 127, 129, 70, 73, 65, 47 and 57³⁴. Pedestrian and equestrian usage of the routes is shown by the surveys to be no more than modest but the interests of users of the routes on foot and horseback nevertheless remains a serious consideration in this case, in the light of the totality of evidence which has been heard.

Traffic Generation and Profiling

3.15 The traffic generated by the proposal is agreed as is its profiling. DB points out that for the majority of project days, the proposals will generate 24 or fewer two-way HGVs (85% for scenario A and 88% for scenario B). However, HGV traffic at a level of 24 (or fewer) two-way movements per day is still of concern. Furthermore, the number of project days on which there would be HGV traffic at a level of 25 to 50 HGVs (that is, 15% on scenario A and 12% on scenario B) is significant in its own terms. On scenario A there would be 275³⁵ such days (or 55 weeks based on a five-day working week as proposed). On scenario B there would be 218³⁶ such days (or 43 weeks based on the same five day working week).

3.16 DB's proof estimates that, in his scenario A, there would, over the 6-year project duration, be a total of only 61 days (12 weeks) of the worst case of 50 two-way movements per day of the largest 16.5m articulated HGVs, with the figure reducing to 34 days (7 weeks) on scenario B. However, there will be significantly more days when the development generates flows of the largest 16.5m articulated HGVs above 25 two-way movements per day. The figures are 175 days (35 weeks) and 121 days (24 weeks) on scenarios A and B respectively³⁷. There is thus a significant flow (25 two-way movements per day or more) of the largest 16.5m articulated HGVs over a significant number of days.

3.17 It is also instructive to compare the number of days on which there is now predicted to be peak traffic generation of 40-50 two-way HGVs per day with the position before the previous inquiry. The previous inquiry (and the Inspector and Secretary of State) proceeded on the basis that the duration of peak HGV traffic flows, defined as 40-50 two-way HGV movements per day, was up to 12 weeks³⁸. The adverse conclusions in respect of the highway safety implications of the proposed development on the last occasion were reached in the light of that understanding. The position now is that, under scenario A, there would be 134 weekdays (nearly 27 weeks) over the lifetime of the project when there would be peak HGV traffic generation of 40-50 two-way movements while, under scenario B, there would be 93 such days (18 weeks)³⁹.

³³See table 3.1 of the Baseline Transport Conditions Report (CD 7.3) as updated in CE/INQ/009.

³⁴Ibid. The average and peak figure is the same for Lodge Lane because the data was collected here for one day only.

³⁵275 is (see DB Xx) the sum of the two-way HGV traffic over the project duration for the 25-39 day and 40-50 day columns in table 5.22 of DB proof, the individual figures for these columns being 141 and 134 respectively.

³⁶218 is (see DB Xx) the sum of the two-way HGV traffic over the project duration for the 25-39 day and 40-50 day columns in table 5.23 of DB proof, the individual figures for these columns being 125 and 93 respectively.

³⁷See DB Xx and LCC/INQ/001.

³⁸See DB proof paragraph 5.74 and (reference from Inspector's report).

³⁹See DB proof table 5.21 and paragraphs 5.72-5.74.

The Appropriateness of a Worst-Case Assessment

3.18 Cuadrilla has proceeded on the basis of a worst-case assessment for each route. LCC agrees that this is the right approach to adopt as the conditions do not exclude the prospect of significant usage of any particular route or the type of HGVs which may travel along it. Route selection remains, with limitations⁴⁰, a matter for operator choice depending on the circumstances which present themselves at any point in time. It is not possible to work on the basis that all three routes will always be available or to what extent each will be used. Consequently, each route needs to satisfy a stand-alone assessment in its own right and to be able to accommodate a worst case scenario. Cuadrilla says all three do. LCC submits that none does.

The Accident Record

3.19 A cautious approach to the past accident records of the proposed routes is appropriate, rather than one which ascribes very significant weight to what is accepted to be the good recent accident record of the roads under consideration, as DB does⁴¹.

3.20 The previous Inspector said that the *"accident record on the preferred route is obviously relevant and a material consideration. Nevertheless, it does not automatically follow that because accidents have not happened in the past, they would not be likely to happen in the future, given the new scenario that would arise as a result of the proposed development. The judgement to be made must also reflect the change that would occur in levels and nature of traffic using the route with the prospect of a very significant increase in large articulated HGVs at peak periods."*⁴² She then supplemented this point by concluding that *"although historically the accident record has not given cause for concern, the prospect of accidents occurring in the future must be considered in the light of the nature and volume of the traffic which it is proposed to introduce, and the potential for conflict between road users that would arise with the new situation"*⁴³.

3.21 That approach was endorsed by the SoS. The Decision Letter records his agreement that *"it does not automatically follow that because accidents have not happened in the past, they would not be likely to happen in the future, given the new scenario that would arise as a result of the proposed development"*⁴⁴.

3.22 This was a cautious approach to an accident record which, historically, had not given cause for concern. That accident record was not different in any significant way from that which now presents itself to this inquiry. Furthermore, the cautious approach taken by the Inspector and SoS is founded on the same consideration which leads NS to advocate a similar approach, that is, the *"change of dynamics"*⁴⁵ brought about by the introduction of the new HGV traffic. That approach is equally applicable to all three routes presently proposed. Consistency in the approach to this matter is an important consideration and the clear precedent of the last decision provides all necessary support for proceeding in this way.

⁴⁰Such as the unavailability of the DHFCS route through national emergency or flooding.

⁴¹DB proof of Evidence paras. 9.8, 9.9, 9.20, 9.27.

⁴²Paragraph 12.497 of the Inspector's Report at CD 4.2.

⁴³Paragraph 12.498 CD 4.2.

⁴⁴Paragraph 96 of the decision letter at CD 4.2.

⁴⁵Xx.

3.23 Additionally, it is not illogical to attach significant weight to a bad accident record, had there been one, but not to the good accident record that actually exists. In the former situation the introduction of the fresh HGV traffic could only make matters worse but in the latter situation the persistence of a continuing good accident record is very far from assured given the "*change of dynamics*".

Other Development

3.24 DB draws attention to the fact that housing development has been permitted in Elswick, Inskip and Clifton, which will generate HGV traffic on sections of the proposed routes. He assumes that that traffic would be at a level of 40 two-way HGV movements per day and notes that no mitigation was required to satisfy the resulting highway impacts. DB's estimates of construction traffic generated by the housing development are accepted. Nevertheless, only limited weight should be given to the overall point. First, the sphere of influence on the appeal network of the likely HGV movements from these developments is limited, as DB recognises⁴⁶. The focus of the HGV traffic generated by the housing development on the G & RRs would be between the A585(T) and Elswick with some HGVs continuing to Inskip. The additional HGV traffic resulting from the housing development in Clifton would be on the southern end of the Blue Route. It is not to be expected that significant HGV traffic would arise from the consented development on some of the more challenging sections of the routes now proposed such as Roseacre Road on the Green Route and Dagger Road on the Blue Route. Secondly, the developments have not yet progressed to the point where the actual impacts of the HGV construction traffic can be considered by reference to whether they have had an effect on accident records.

Previous Consideration of the Green and Red Routes

3.25 This inquiry must come to a decision on the G & RRs on their merits in the light of the detailed evidence which is now put forward. However, that does not mean that the views expressed by Arup (the Appellant's Highway consultants at the last Inquiry) in their previous assessment of the G & RRs should receive no consideration at all.

3.26 Arup's conclusion in respect of the GR (their Route 1) was that if it were to be used, it would be preferable to limit its use to one-way movements inbound towards the site because of turning and visibility restrictions along the route⁴⁷. They highlighted the left turn manoeuvre out of Roseacre Road on to the B5269 in the centre of Elswick with its limited visibility⁴⁸. The present inquiry has confirmed the visibility restriction at this junction in respect of outbound HGVs. Vectos drawing 172806/R/G14⁴⁹ shows that there is visibility of only 26.3m to the nearside kerb line when measured from 2.4m back and only 27.6m to the nearside kerb line when measured from 1.5m back. The appropriate visibility distance (recommended in Manual for Streets 2 to be 2.4m x 41m for 30mph roads) is achieved only with a 1.5m setback taken to the centre of the carriageway on the High Street. Yet the approach in Manual for Streets 2 is that it is only where circumstances make it unlikely that vehicles approaching from the left on the main arm will cross its centre line that the

⁴⁶See DB proof paragraphs 6.116 and 6.117 and Xx.

⁴⁷See Environmental Statement, Appendix R1 – Transport Assessment (Exploration Works) (June 2014) at paragraph 7.3.8.

⁴⁸Ibid at paragraph 7.3.3.

⁴⁹Found in DB proof appendices at appendix G.

visibility splay can be measured to the centreline of the main arm⁵⁰. The example given is where opposing flows are physically segregated⁵¹. Clearly, this is not the case at the Roseacre Road/Elswick High Street junction where there is no such likelihood and where eastbound vehicles on Elswick High Street may have crossed the centre of the carriageway to negotiate parked vehicles. Routing a significant number of HGVs through a junction with sub-standard visibility is unsatisfactory.

3.27 In respect of the RR (their Route 2), Arup concluded that, on balance, it should not be used by site HGV traffic⁵². They drew particular attention to *"one bend which has restricted forward visibility due to a building on the apex of the bend."*⁵³ The feature here referred to is what DB accepts is the *"tight"*⁵⁴ bend in the centre of Inskip on Preston Road at its junction with School Lane. As at other points on the routes, HGVs need to encroach into the opposite side of the carriageway to negotiate the bend. The extremely limited inter-visibility at this point is confirmed by the details of Vectos's analysis; the maximum achievable is only 24.8m (as shown on Vectos drawing 172806/R/R09)⁵⁵. This bend presents a significant safety hazard⁵⁶. That was no doubt the reason why it was singled out by Arup. The associated risk can only be increased by routing additional HGVs, including the largest 16.5m articulated lorries, along the RR. The lack of recorded accidents at this location and the fact that vehicle speeds have to be significantly reduced to negotiate the bend does not lead to the conclusion that there is nothing much to be worried about at this point on the route. NS⁵⁷ considers that the placement of a convex mirror would do nothing to alleviate matters in that it would be viewed at an unsatisfactory distance from a moving vehicle rather than at close quarters from the safety of a stationary position, such as in a private driveway. It could also exacerbate the position through driver distraction. DB is content to see the mirror removed⁵⁸.

Visibility Over Third Party Land

3.28 There are several situations in the routing strategy where the visibility relied upon, to mitigate the inability of OGV2s to pass one another on carriageway bends, is taken across third party land where there are roadside boundaries formed by hedgerows. Examples are provided by: the bends on the G & RRs about half way between Thistleton and Elswick (inset on Vectos drawing 172806/R/G03⁵⁹); the double bend on the RR on Lodge Lane between Elswick and the junction of Lodge Lane with Preston Road (inset A on Vectos drawing 172806/R/RO5⁶⁰); and the double bend on the BR along the northern section of Station Road, in the vicinity of Salwick Hall Cottage (Vectos drawing 172806/R/B07⁶¹).

⁵⁰See paragraph 7.7.5 of Manual for Streets (CD 8.1) as put to DB in xx (replicated in Manual for Streets 2 (CD 8.2) at paragraph 10.5.5.

⁵¹Ibid.

⁵²See Environmental Statement, Appendix R1 – Transport Assessment (Exploration Works) (June 2014) at paragraph 7.4.8.

⁵³DB proof table 6.2 and x.

⁵⁴Ibid.

⁵⁵Found in DB proof appendices at appendix H.

⁵⁶NS x.

⁵⁷NS proof paragraph 5.22.1 to 5.22.3 and x.

⁵⁸Rebuttal proof, paragraph 2.42.

⁵⁹Found in DB proof appendices at appendix G.

⁶⁰Found in DB proof appendices at appendix H.

⁶¹Found in DB proof appendices at appendix I.

3.29 Hedges are generally low at present (although there is considerably more obstruction to visibility by vegetation on the Lodge Lane double bend where hedge heights have been measured at 3-3.5m on the western side⁶²) but it cannot be assumed that landowners will necessarily adopt a similar maintenance regime in the future. If they fail to do so, while LCC has available the statutory powers of the Highways Act 1980 (in particular Section 154), a quick resolution of any obstruction to visibility is far from guaranteed (given, a notice procedure and a court appeal process). That is so notwithstanding that a mechanism has now been put in place in the unilateral undertaking whereby Cuadrilla must give advance warning to LCC of emerging problems. Reliance on visibility being taken over third-party land is a further cumulative risk factor which should not be ignored.

Passing Places/Widenings

3.30 The proposals involve a combination of what may be considered passing places and other carriageway alterations, which are more appropriately considered road widenings. The term "*passing places*" is used hereafter in a compendious sense to encompass both types of proposal except where it is necessary specifically to distinguish the two.

3.31 The extent of the number of passing places proposed by way of mitigation (39 in total distributed across the routes to the extent of 16 on the GR, 11 on the RR and 12, together with part-time traffic signals, on the BR) points unequivocally to the unsuitability of the routes.

3.32 The passing place proposals should not be regarded as simply illustrative. This inquiry has been re-opened in order to reconsider highway safety given the failure of Cuadrilla last time to demonstrate that the proposed mitigation was workable in practice (SoS DL paras. 98 and 99⁶³). The Inspector was not persuaded that outstanding issues such as inter-visibility were appropriately relegated to a later detailed design process⁶⁴. Against that background, the acceptability of what is now proposed must be judged on the basis of the proposals currently on the table. That is not to say that some (relatively minor) refinements would not be capable of emerging in a detailed design process or via a section 278 agreement but the Inquiry must work on the basis that the information now before it substantially represents what will eventually come forward. Hence the "*substantial accordance*" condition. The inquiry cannot proceed on the basis that there may be some other, as yet unidentified, proposals which might be superior. Likewise, in the light of the history of this case, any suggestions that particular issues are ones for detailed design rather than present consideration should be treated with caution.

Suitability

3.33 Taking account of the matters agreed (CE/INQ/015) the passing places which NS considers unsuitable⁶⁵ on the GR (be it in relation to available width, susceptibility to flooding, impact on access, impact on hedges and trees or a combination of these factors) are PP3, PP8, PP12, PP13, PP14 and PP16. The passing places considered unsuitable on the same basis on the RR are PP1, PP2, PP5 and HS4, while the passing

⁶²See paragraph 27 of CE/INQ/015.

⁶³CD 4.2.

⁶⁴IR para.12.471.

⁶⁵NS tables 4.43, 4.44 and 4.45.

places considered unsuitable on the same basis on the BR are PP1, PP2, PP5 and PP6⁶⁶. Of the passing places/widening so identified, susceptibility to flooding has informed NS's conclusions in respect of PP3 and PP16 on the GR, PP1, PP2 and PP5 on the RR and PP1 and PP2 on the BR. If Cuadrilla's commitment (as understood to be) to do whatever is necessary at their cost to identify and implement or pay for a drainage solution which would resolve the concerns at the locations of the passing places in question holds good, then NS's concerns on this score can be overcome (although it is submitted that permeable asphalt would not in any event be an appropriate solution⁶⁷). Whilst the commitment (given by Nathalie Lieven's (NL) during Xx of NS) has not been recorded in any formal mechanism, LCC would not expect Cuadrilla to object to LCC requiring a passing place scheme (under the requisite condition) which reasonably meets its concerns. On this basis, the unsuitable passing places would then become, on NS's approach, PP8, PP12, PP13 and PP14 on the GR, HS4 on the RR and PP6 on the BR⁶⁸. The remaining contention between the parties on those passing places is left for the inquiry to judge.

Visibility Requirements

3.34 On the basis that visibility requirements for the effective operation of passing places are that one must be able to see from a decision point approaching a particular passing place to the next succeeding passing place, the following is now the agreed position between the parties (CE/INQ/015) in respect of the adequacy of visibility. On the BR it is agreed that there is insufficient decision time inbound on Salwick Road on the approach to PP5, with the consequence that there is a material risk that drivers will overrun PP5 due to the lack of forward visibility. It is also agreed that on the approach to PP6 inbound there is an incline in the road which, along with the hedge, obscures the visibility to PP7. In respect of the RR, it is agreed that visibility is adequate in respect of all passing places. Turning to the GR, it is agreed that: there is inadequate decision-making distance outbound on the approach to PP3 in order to be able to see an HGV in PP2; there is inadequate decision-making distance inbound on the approach to PP4 in order to see an HGV in PP5; and that there is inadequate decision-making distance on the approach to PP8 inbound in that PP9 is only seen as one comes round the bend at PP8.

3.35 NS also considers (explained in evidence and represented diagrammatically on LCC/INQ/007) that further visibility, in addition to visibility from a decision point approaching a particular passing place to the next succeeding passing place, would ensure the effective operation of the passing places. An example occurs on the GR where it is agreed (in CE/INQ/015) that there is good decision-making distance from PP12 to PP14 via PP13. NS considers that such extended visibility, if more generally available throughout the passing place system on the routes, would allow an HGV a further opportunity to pause at a passing place and mitigate the risk of an approaching HGV (or other vehicle) not itself stopping at a passing place through unfamiliarity with the route or failure to appreciate the existence of a passing place or recognise it for what it is. On that latter point, not all passing points will manifest themselves as such. Some are in the nature of road widening and will not be

⁶⁶The passing place numbering for the Blue Route is presented on the basis of the numbering in the Vectos drawings which, as PP4 has been removed and included within the traffic signal controlled section of Dagger Road, means a re-numbering of the passing places in table 4.45 in NS's proof such that PP5 therein should now be re-numbered PP4, PP6 therein should now be re-numbered PP5, etc.

⁶⁷NS Xx.

⁶⁸NS has now accepted that there is width to construct PP5 on the Blue Route.

locations where bollards are provided, given that the function of the latter is to mark a deviation from a carriageway. This may occur with a passing point in the true sense but not with a simple widening⁶⁹. Cuadrilla relies on driver education as a means of alerting site-generated traffic generally to issues arising on the routes. On the specific point (now found in paragraph 3.13 of the latest iteration of the traffic management plan) in relation to an HGV Route App which would alert a driver to passing places along the routes, it is submitted that it is not presently possible to repose any substantial confidence in this provision given that it has not yet got beyond the investigation of the development of any such app.

Consequences of Inadequate Visibility

3.36 NS identified three particular consequences of HGVs not stopping at passing places because of inadequate forward visibility to provide sufficient decision-making time. It is an agreed position (see para. 2.36 above) that HGVs could overshoot passing places at the following locations: PP3, PP4 and PP8 on the Green Route; and PP5 and PP6 on the Blue Route. The three consequences were: a slow head on collision; a reversing manoeuvre; or the use of the verge to enable the vehicles to pass⁷⁰. Each of these consequences would be unsatisfactory and would generate safety concerns. Cuadrilla say that the most likely possibility is that in the situation where an HGV has proceeded beyond a passing place only to encounter an opposing HGV, the two vehicles would pass by utilising the verge, there being sufficient hedge to hedge width available for that to occur in the locations in question. While that may be the case, the manoeuvre is still unsatisfactory and risks the introduction of mud on to the carriageway. That is a safety concern notwithstanding that agricultural vehicles may generally bring more mud on to the roads. It is adding to a potential safety problem and potentially introducing it at different locations. Verge protection should not be considered a separate issue from highway safety but part and parcel of it. If an HGV were to reverse, it is not a sufficient response to say that this poses no or little safety risk because all users would be alert to this and be able to react accordingly; that may not always be the case. Collision risk speaks for itself as a safety concern.

Drawbacks of Passing Places

3.37 The introduction of so many passing places also has potential drawbacks for vulnerable road users. Removal of the verge reduces the sanctuary it affords to such users⁷¹ who may find they are left with nowhere to safely station themselves when an HGV meets another HGV (or, say, a large 4x4 vehicle) at such passing places. This is a further safety concern. It is not a compelling answer to this point to say that the relatively slow speeds at which such passing manoeuvres will take place will allow vulnerable road users to put themselves out of harm's way. That is unduly optimistic. The use of verges by non-motorised users (NMUs) is clearly recognised in paragraph 4.7.9 of TD27/05⁷² which states that verges should be sufficiently level and free from hazards to permit their occasional use by Non-Motorised Users in the absence of dedicated facilities. While this standard is intended to guide the construction and improvement of motorway and all-purpose trunk roads (including rural all-purpose trunk roads) its recognition of the use of verges by vulnerable road users is

⁶⁹See xx of DB in relation to the example of PP8 on the Green Route.

⁷⁰Xx.

⁷¹NS proof, paragraph 5.17.

⁷²See LCC/1/7.

undoubtedly of more general application.

3.38 More generally, the point is, as set out in paragraph 2.5.1 of LCC/1/10, that TD27/05 can be appropriately considered (notwithstanding that it is intended to apply to trunk roads) to demonstrate the desirable width of verges on rural all-purpose roads (which are not trunked). There is no other standard to which regard may be had. On that basis, existing verge widths on the routes, which are below 2.5m⁷³ (frequently the case⁷⁴)⁷⁵ are reduced still further. As NS said, something which is already sub-standard is now being made more sub-standard⁷⁶. There is less opportunity to correct driver error without risk of striking the highway boundary feature⁷⁷. And so, the cumulative safety concerns mount.

The Dagger Road Traffic Signals

3.39 While NS accepted that a 600mm offset could be achieved between the edge of the carriageway and the traffic signal head at the proposed southern traffic light installation on Dagger Road⁷⁸, the overall layout remains somewhat cramped. The verge width is reduced below even the figure of 2m provided for in paragraph 4.7.6 of TD27/05 in respect of the accommodation of communications ducting and chambers.

3.40 LCC raise a number of safety concerns in relation to the times when the traffic signals would come into operation through the presence of HGVs travelling in opposite directions on Dagger Road. These are set out in NS's proof⁷⁹ and LCC/1/10. The concerns range across a number of issues which include general driver confusion from the presence of traffic signals in a location where their purpose is not obvious, hesitancy on approach leading to rear end shunts, the risk of a red light being jumped because of the travel time for an OGV2 to proceed through the traffic signal controlled section and the possibility of vehicles from accesses within that section, including Moss Lane East, turning into the traffic signal controlled section of Dagger Road in the opposing direction to a vehicle which has received a green light. Such a vehicle would not be expecting to encounter anything coming in the opposite direction. The general tenor of DB's response to these matters⁸⁰ is that they are inconsequential, raise no issues that might not arise with any traffic lights and that any risks are sufficiently mitigated by likely driver familiarity with the arrangements and available visibility within Dagger Road. LCC cannot be so sanguine and invites the conclusion that the risks are not ones which should be incurred. The feasibility of providing tags for the vehicles of the agricultural contractor whose premises lie within the traffic-controlled section and how this would work in practice to mitigate risks is uncertain.

3.41 Furthermore, at those times when the traffic signals are not called into operation by opposing HGV movements on Dagger Road, no mitigation at all is offered for risks posed by the introduction of the site generated HGV traffic on the traffic signal-controlled section. In this 888m section of Dagger Road, the measured carriageway widths (taken from south to north) are⁸¹ 4.62m, 4.53m, 4.78m and

⁷³See figure 4-3a in TD27/05 found in LCC/1/7.

⁷⁴See NS proof paragraph 5.17 and paragraph 2.5.1 of LCC/1/10.

⁷⁵CE/INQ/017.

⁷⁶Xx.

⁷⁷NS proof, paragraph 5.17.

⁷⁸Xx.

⁷⁹Paragraphs 5.24 to 5.28.

⁸⁰Rebuttal proof, table 2.6.

⁸¹See appendix B - Carriageway Widths to the Revised Environmental Transport Assessment which forms Appendix

4.96m. Figure 7.1 of Manual for Streets 2⁸² suggests a carriageway width of 4.8m is needed for a car to pass an HGV (excluding near side wing mirrors, according to NS⁸³). That carriageway width is not available over the traffic signal-controlled section. The response of Cuadrilla to this is that it is satisfactory for the unmitigated status quo to remain in place here because cars must safely pass HGVs on this section of road at present given the absence of any relevant accidents. It is not considered that this is a good argument given the change in the volume and composition of HGV traffic that the site would produce. For instance, CE/INQ/012 shows that during the hours of 7am to 5pm there are presently only 6 two-way class 6 HGVs on Dagger Road and but one class 10 OGV2. The appropriate worst-case assessment must cater for the potential for 50 two-way movements of the largest class 10 OGV2s. Even half that number would bring about a sea change in usage. Additionally, as the width of all OGV2s is the same (at 2.55m), the inability of car and HGV passing manoeuvres to take place on the carriageway in this section of road would occur with all class 6 rigid tipper trucks, which could potentially use the Blue Route in the construction and restoration phases of the development.

Vulnerable Road Users

Cyclists

3.42 Cuadrilla does not dispute that there is significant weekday cycle usage in respect of the road links on each of the three routes now under consideration. The figures are set out in paragraphs 2.13c and 3.14 above. The conditioning out of Saturday morning usage of the routes, whilst providing a benefit for VRUs, including cyclists, compared with the previous proposals on that day, ignores the impact on the five weekdays. A similar level of risk remains in respect of the potential interaction of the HGV traffic from the proposals with weekday cyclists and other road users.

3.43 No physical mitigation is provided for this risk. Cuadrilla expects the combination of cyclist and HGV driver behaviour to be sufficient to ameliorate any concerns. LCC does not consider that this proposition carries the case. Whilst many of the cyclists on the network will be experienced road riders, this is hardly a sufficient safeguard in itself. A cyclist's own experience, whatever it may be, cannot always guard against the actions of drivers. Moreover, there is no reason to think that all cyclists will necessarily be experienced. Less proficient cyclists may take to the roads in the school holidays, for example. Additionally, reliance on HGV driver behaviour, reinforced through a programme of driver education, should be viewed with caution. The previous Inspector regarded such an approach as "*superficial*"⁸⁴ and, whilst Cuadrilla have expanded their present proposals, LCC invites the inquiry to share its concern that it is by no means certain that driver education will be successfully implemented or, if it is, that that will in itself be sufficient to ameliorate risks to cyclists on routes which are inherently unsuitable for large numbers of HGVs to mix with vulnerable users.

3.44 The application of the ideal minimum widths required for vehicles to overtake cyclists in comfort set out in paragraph 8.6.8 of Manual for Streets 2⁸⁵ (HGV passing

18.2 to the Environmental Statement Traffic Addendum (CD 6.2).

⁸²CD8.1 and LCC/1/5.

⁸³LCC/1/5.

⁸⁴Inspector's Report at paragraph 12.491.

⁸⁵CE/INQ/05.

at 20mph: 4.6m; HGV passing at 30mph: 5.05m), does not provide adequate reassurance in the circumstances of the present case where cyclists may well be constrained by frayed carriageway edges, pot holes, ponding and the like and need to cycle further out into the carriageway than they otherwise would. The unilateral obligation obliges Cuadrilla to carry out, prior to the commencement of development, "*highway improvement works*", defined as reasonably necessary to repair any existing verge or carriageway damage in order to protect the amenity of vulnerable road users. The figure is capped at £100,000. LCC is content with the obligation. The highway authority is not in the habit of turning down developer-provided expenditure of that magnitude on highway repairs. But, whether it is generous or not, the extent to which it would ameliorate present conditions across the three routes cannot but be conjectural at present.

Pedestrians and Equestrians

3.45 Apart from the inherent risks posed by the potential interaction of HGVs with pedestrians and equestrians on the narrow country lanes on which the site traffic is proposed to be routed, the removal of verges to create passing places increases risks for these vulnerable users as set out in paragraph 3.37 above.

The Impact of Protest

3.46 PNR has seen significant, disruptive public protest. There is every reason to believe that the same will occur at RW. ML is burying his head in the sand if he thinks that this will not be the case. The idea that protest will wane as fracking becomes established and demonstrates that it can be conducted in a safe and responsible manner without environmental harm is unsupported by any specific evidence, given that the industry remains in its infancy. Even if this speculation were to prove accurate, it is submitted that reduced protest activity will only come in the longer term and not benefit the appeal site in the meantime. The proposed viewing area is no answer to the issue. It is not likely to be used by protestors. The equivalent facility has not been used at PNR⁸⁶. Protest activity aimed at disrupting the development is much more likely to focus on the public highway⁸⁷.

3.47 That last consideration gives rise to the real prospect of the introduction of significant pedestrian activity on unsuitable roads. As put in its consultation response of 24th January 2018 to the present proposals⁸⁸, and expressing agreement with NS, "*Lancashire Constabulary is concerned about the safety implications that will arise due to the presence of protestors in narrow country lanes where there is no pavement in close proximity to vehicles (including HGVs).*" This is yet another cumulative safety risk which counts against the development. Nothing in the decision in *Frack Free Balcombe Residents Association v West Sussex County Council*⁸⁹ prevents this matter from being taken into account. The prospect of unlawful protest activity could not be a reason for refusal, but the impact of lawful protest should be taken into account. The absence of personal injury accidents arising from protestor activity to date at PNR does not support the scenario that operations at RW can be equally expected to be accident free, given the very different characteristics of the highways in question.

⁸⁶ML Xx.

⁸⁷ML Xx.

⁸⁸LCC/1/8 and CD 6.15.

⁸⁹[2014] EWHC 4108 (Admin).

3.48 Protest activity is also relevant to this decision because of its potential impact on the operation of the TMP. At PNR the TMP has gone through 11 iterations. In the face of protest activity there has been a significant number of instances (191 as now set out in LCC/INQ/010) in which HGVs have entered or left the site other than by the preferred manner of working, with left-in and left-out only traffic movements. This demonstrates that, whatever is put forward in advance by way of traffic management, may be forced to yield to pressures which manifest themselves once development is under way, leading to outcomes which were not those originally anticipated.

Traffic Management Plan

3.49 LCC does not take issue with the contents of the TMP. It has been worked up as far as might reasonably be expected. Nevertheless, LCC's overall submission in relation to the TMP is that its effective implementation in practice, which is where NS's doubts were centred⁹⁰, should be viewed with some scepticism. NS's point, in short, is that what might look good on paper, could fall short in reality. It is true that Cuadrilla has had the benefit of operating a TMP at PNR but whether that experience can be easily translated to the very different challenges of Roseacre Wood may be doubted. The flexibility in the management of HGVs by having three routes available is counterbalanced by the additional complexity of having to deal with more than one.

3.50 While the TMP is an iterative document (and thus can be changed and improved as development progresses in the light of experience gathered along the way), the potential for departure from original principles is, as the PNR experience shows, real. The practicality of effectively delivering education to a potentially disparate and fluctuating group of drivers (none of whom will be directly employed by Cuadrilla) through contractual provision is not assured. CUA/INQ/025 shows that at PNR there has been a significant cohort of non-regular drivers in respect of whom the driver education programme in the traffic management plan, no doubt doing what it can, is nevertheless not able to provide direct Cuadrilla induction or (for obvious reasons) any on-going refresher courses.

Overall conclusion

3.51 The relevant policy tests are not met by Cuadrilla's revised routing strategy and amended proposals. Impacts that would cause demonstrable harm to highway safety have not been reduced to acceptable levels, contrary to Policy DM2 of the JLMWLP. Safe and suitable access to the site has not been achieved and the residual impacts of the development are unacceptable, contrary to paragraph 109 of the NPPF.

4. THE CASE FOR ROSEACRE AWARENESS GROUP

Introduction

4.1 The local roads in this rural area are narrow, winding, largely unlit, with only intermittent pedestrian footways and in many places they are in a poor state of repair. The proposed routes from the site to the Strategic Road Network would have to accommodate a significant number of the largest HGVs, including articulated lorries, for which they were not built. Residents of the communities the routes pass through and visitors to the area would have to endure substantial, disruptive and dangerous

⁹⁰XX.

traffic movements across this unsuitable local road network. The mitigation measures proposed by the Appellant do not come close to satisfactorily addressing or overcoming these issues. Based on the evidence presented to this inquiry there is no reason to depart from the conclusions or reasoning of the previous Inspector and SoS.

Planning Policy

The Development Plan

4.2 Policy DM2 of the JLMWLP and Policy CS5 of the Fylde CS are the relevant DP policies.

4.3 The SoS has determined that these policies are consistent with the NPPF, should be given full weight and provide a sufficient basis to judge the acceptability of the appeal proposals in principle.⁹¹ It follows that if it were held again that *"the proposed development would have a serious and very significant adverse impact on the safety of people using the public highway"* such that it were not possible to *"conclude that the demonstrable harm associated with that issue would not be eliminated or reduced to an acceptable level"* that would be sufficient to mean that the development were *"not in accordance with the development plan taken as a whole."*⁹²

The National Planning Policy Framework

4.4 Although the revised Framework at para. 209 modifies the guidance to mineral planning authorities (formerly at para. 147), there is no reason to interfere with the approach taken by the previous Inspector with which the Secretary of State agreed *"that the need for shale gas exploration is a material consideration of great weight in these appeals, but that there is no such Government support for shale gas development that would be unsafe and unsustainable"*. Therefore, whilst positive weight should be attributed to a development proposal for fracking, that does not overcome the need to fulfil the revised Framework's transport policies. It is just one factor to be considered in the planning balance.

4.5 Paragraph 111 of the Framework provides that:

"All developments that will generate significant amounts of movement should be supported by a travel plan and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed".

4.6 Paragraph 108 of the Framework says that:

"In assessing specific applications for development, it should be ensured that:

- a. appropriate opportunities for sustainable transport modes have been taken up, depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
 - b. safe and suitable access to the site can be achieved for all people;*
- and*

⁹¹CD 4.2 – DL para. 24.

⁹²CD 4.2 – DL para. 110.

-
- c. *any significant impacts from the development on the transport network, or on highway safety, can be cost effectively mitigated to an acceptable degree*".

4.7 "Ensure" means "to make certain" i.e. the criteria should be satisfied in all cases. This is a considerably higher bar than "*decisions should take account of*" which the revised wording replaces.

4.8 The means of accessing the site must be "*safe and suitable*" for all people. Safety and suitability are plainly separate albeit, closely related and interlinked considerations. Put simply, had the policy only meant "*safe access*" it would have said so and it would have been unnecessary to include the words "*and suitable*". The wording of the policy does not restrict consideration of the residual cumulative impacts of development to those concerning safety. The previous Inspector considered both matters to be relevant, finding at IR12.499 that "*the selected route is therefore unsuitable for its intended purpose*" and at IR12.500 that "*safe and suitable access would not be achieved.*"

4.9 The Secretary of State also recognised the need to consider both issues concluding at DL 111: "*As regards national policy, the Secretary of State considers that since safe and suitable access to the site for all people would not be achieved and the residual cumulative impacts of development would be severe, the scheme would therefore be contrary to paragraph 32 of the NPPF.*" This sentiment is now contained in paragraphs 108 and 109.

4.10 RAG fails to see how a decision maker could reasonably consider whether the test set out in paragraph 108 of the Framework is met without considering the twin issues of the safety and suitability of the access to the site for all people. By way of example, there could be a severe impact if changes to the nature of the highway, because of the development traffic and associated mitigation measures, result in the highway becoming unsuitable for other users by discouraging their use of that highway. The previous Inspector's conclusion that: "*the need to ensure the safety of members of the public is paramount*" is still valid, even with the changes to national policy.

4.11 Paragraph 109 of the Framework says that:

"Development should only be prevented or refused on transport grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".

4.12 The changes to the policy distinguish between the impact on highway safety and that on the road network. The impact on highway safety is no longer severe but unacceptable. Unacceptable, meaning not satisfactory connotes a lower threshold than severe, which means very great or intense.

4.13 The consideration of impacts on the road network is not confined to capacity or congestion. Safety and suitability of access are also relevant impacts. In this context the impact on VRUs is a fundamental consideration in the determination of the appeal. As well as the need to ensure the safety of members of the public, ensuring that members of the public feel safe when using the road network, both remain paramount.

4.14 Paragraph 110 explains that applications for developments should "*give priority to pedestrian and cycle movements.*" As GK explained, the drafting of the Framework

is a reflection of concerns that in the past the planning system has created roads and situations that may have been safe but achieved this by discouraging vulnerable road users from using the roads. A good example of this was the suggestion by the Appellant in respect of equestrian users that those users could hack on routes which avoided conflict with Cuadrilla vehicles. This is not a demonstration that safe and suitable access has been achieved for all people but a demonstration of quite the opposite. Forcing vulnerable road users away from routes they currently use is not a proper approach to sustainable planning. Indeed, some vulnerable road users may not be able to select alternative routes. Elderly pedestrians who do not, or no longer, drive, school children walking along Roseacre Road or disabled vehicle users who reside along the routes, are obvious examples.

Risk, Safety and Suitability

4.15 GK explained that each hazard had to be looked at as part of an overall risk assessment. He described the question of whether an individual element is a severe risk as a false alternative. The approach that the Appellant impresses upon the inquiry should be approached with caution.

Baseline Conditions

4.16 The Appellant's surveys of baseline transport conditions are summarised in CD 7.2. RAG does not dispute the accuracy of the data in the locations and for the days on which the surveys were undertaken. Importantly, RAG agrees with the Appellant's analysis that the data demonstrates that "*there are very few OGV2 currently travelling along the three routes.*"⁹³ This highlights the step change that would occur in the use of the rural road network by the development traffic.

4.17 However, RAG has a number of other significant concerns regarding the use of that data to the exclusion of other information. In particular, one cannot extrapolate evidence of current movements and speeds at junctions from the data, as the ATC locations were only on links and not at the junctions. This is recognised by the NPPG which sets the expectation that data on current flows will be gathered "*on links and at junctions*"⁹⁴. It is notable that there is no data before this inquiry as to whether any HGVs use the junctions on the three routes in the manner suggested by the Appellant, let alone to the extent the Appellant appears to suggest⁹⁵.

4.18 The locations of the cameras are such that the data collected is plainly under-representative of movements by VRUs across the whole of the network and highly likely to be under representative of movements associated with agriculture in the area. Furthermore, one must exercise extreme caution when assessing the parts of the data relied upon. Often the Appellant has looked at changes to the total number of HGVs when it would be far more appropriate to look at OGV2 or even class 7 – 10 flows instead.

Types of HGV

4.19 As TH described in detail, there are substantial differences between the vehicles

⁹³CD 11.4 – paragraph 12.

⁹⁴See DB Rebuttal – Appendix G – NPPG Ref 42-015-20140306.

⁹⁵The Appellant's calculation (for which no workings were provided) of 10,000 HGVs over eight years undertaking the relevant manoeuvres at the Hand and Daggers Junction is simply not a figure that can sensible be derived from the available data.

this development is reliant upon and the types of HGV far more commonly found on the routes at present. This development will utilise 3–4 axle tippers and large articulated lorries.

4.20 Details of the full suite of vehicles, which are commonly referred to as HGVs, are shown in Appendix A to CD 7.2. Table 2.6 of that document provides the 12hr weekday hours average baseline flows for all vehicles and HGVs. These HGV figures are then further broken down in tables 4.1 to 4.3 of the same document. When one interrogates those tables, it is readily apparent that class 6 vehicles (4 axle tippers) and class 7 – 10 (articulated lorries) make up a tiny fraction of the HGVs currently using the network. For Class 5 (3 axle tippers) one needs to look at the table on page 171 of CD 7.3 where their number are disaggregated from other HGVs – again they are a tiny fraction of the HGVs on the network at present.

4.21 As Appendix A to CD 7.2 illustrates, a 4-axle tipper weighs some 32 tonnes and an articulated lorry weighs up to 44 tonnes. In comparison a rigid van of class 4, more commonly seen on the network today, weighs between 7.5 tonnes and 17.5 tonnes. The additional weight carried by these larger vehicles reduces their manoeuvrability, increases their stopping distances and increases the downward pressure they apply on the road surface. Additionally, whilst a rigid van may be up to 8.1m in length, a class 10 articulated lorry may be up to 16.5m in length. The additional length also impacts on the larger vehicles' manoeuvrability. Further, in respect of articulated vehicles, there are particular matters which must be remembered. The locations of their pivot points mean that they manoeuvre through bends and junctions in a manner unlike other HGVs such that their "tractor" and "trailer" will take different routes through them. As TH explained, the trailer will always take a shorter route and so the tractor will have to take bends at a wider angle. As a result of that manoeuvre, there will be "swing out" at the front and rear of the trailer as it proceeds through a bend. This has the potential to put an articulated vehicle into conflict with oncoming traffic and VRUs at bends and junctions in many locations that smaller HGVs may currently be able to travel through without the same conflict occurring or without it occurring to the same degree.

4.22 Additionally, the introduction of new air suspension requirements means that articulated vehicles now predominantly have trailers which use a single wheel at the end of each axle and tyres known as 'super singles'. This contrasts with the rigid van which will commonly have twin wheels on the end of each axle. This difference is particularly important when one considers the practicalities of the articulated vehicles having to run on the extremities of the highway or the highway verges – a distinct probability on many parts of the route, even on the Appellant's own evidence.

4.23 Very often, the Appellant's evidence relies on the nearside tyre of an articulated vehicle running at the extremity of the road to negotiate a potential conflict. This is the part of the road which often shows signs of degradation on the three routes. The load of an articulated lorry will be spread across a smaller area than on an HGV with twin wheels. The downward pressure on the road would be through fewer pressure points and therefore greater. Equally, where the tyre overruns onto the verge, a single wheel will not have the support of another tyre, which either remains on the road to take the weight or spreads the weight across the verge. This means that articulated vehicles are more likely to cause substantial rutting of the verges and cause greater damage to the extremity of the road, which is its weakest point.

4.24 These ruts can present significant hazards to articulated lorries, in particular,

but also to other HGVs once they have been created. The probability of roll-tip-overs as shown on pages 28 - 32 of TH's Appendix 4 is real. Alternatively, if the rut is gouged deep enough (270mm), then there is the potential for the U-bolts which attach the axle to the vehicle to come into contact with the road surface. This could either cause damage to the road surface as the bolts scrape along it or one or more bolts could be sheared off the axle, with the potential for the axle to detach. Likewise, the extremity of the road may break away under the pressure of the tyres, which also poses a hazard by increasing the probability of roll over.

Vulnerable Road Users

4.25 The Appellant has taken a different approach to surveying the use of the network by VRUs than it took at the previous inquiry. However, in identifying the locations for its survey, the Appellant appears to have been primarily concerned to capture the movements of motor vehicle traffic along a particular link. The survey only captures a movement if the user passes within sight of the survey point. Despite recognising the need for robust⁹⁶ counts, the survey locations were situated away from the population centres along the routes. For example, there was no assessment of use by VRUs within the settlements of Roseacre, Elswick or Inskip, nor on the link between the settlements of Roseacre and Elswick.

4.26 The survey methodology therefore failed:

- a. to identify where the significant local trip generators and amenities along the routes are;
- b. to identify likely desire lines for VRUs;
and
- c. to undertake an assessment as to where the VRUs are likely to be along the routes.

4.27 With regard to pedestrians, the Appellant tried to justify this by stating that they had focused on the locations where there are no footways.⁹⁷ However, the existence of a footway does not necessarily mean that there will not be conflict between vehicles and pedestrians. Pedestrians cross roads and it is often necessary to cross the road along a route to continue on the footpath. GK gives the example of needing to cross the road 13 times to walk along a roadside footpath from Inskip to Thistleton⁹⁸. Some of these footways are very narrow and not wide enough for two pedestrians to pass, particularly if pushchairs or wheelchairs accompany them. This coupled with the narrow road widths and the types of lorries, the development is reliant on being able to bring down unsuitable rural roads, creates an obvious risk of conflict.

4.28 The survey does not capture the numerous locations where public rights of way join up with the rural road network or how pedestrians use the rural road network to move between public rights of way.⁹⁹ GK identified an obvious circular walk to and from Elswick along PROWs and the rural road network, which involved walking back to

⁹⁶CD7.2 paragraph 3.9.

⁹⁷See DB Proof at para 3.48.

⁹⁸GK Proof at para 9.9.

⁹⁹See GK Appendix 1.

Elswick along a significant stretch of the pleasant country lane that is Roseacre Road (a part of the GR).

4.29 Pedestrian journeys are likely to be shorter than most journeys by motor vehicles or indeed bicycle and may not pass a camera outside of a population centre. Pedestrian activity is more likely to involve a walk to the post box, to the village shop, to school, to visit a neighbour, to access community facilities within a village or neighbouring village or simply to walk the dog. It is also concerning that no surveys were undertaken within the villages themselves.

4.30 This artificially low VRU data then fed into the assessment undertaken within the Revised Environmental Transport Assessment¹⁰⁰ and undermines the conclusions reached within that document on the impact of the development on VRUs. DB accepted, in response to a question from the Inspector that the survey underrepresented pedestrian movements.

4.31 The Appellant alleges that because RAG did not raise its concerns in response to a letter sent to it on 9 June 2017, about the proposed survey¹⁰¹, then the obvious flaws in the surveys can be excused. GK pointed out that the letter suggested LCC, the competent authority, had influenced the methodology and it was provided: "*for your information*" with no invitation for a response. The letter also asserted that the survey was to be conducted "*in accordance with industry standards*".

4.32 The Appellant produced further correspondence¹⁰² but again nothing in that correspondence indicated there was any invitation to comment or opportunity to influence the survey methodology, nor did it demonstrate a pro-active approach by Vectos to gain RAGs views. Moreover, the letter was sent at a time when RAG had no knowledge of the three routes now put forward by the Appellant. Had the Appellant intended the letter to be an invitation to consult, it was wholly inadequate as members of the public did not have sufficient information to allow for intelligent consideration and response.¹⁰³

4.33 To further distract attention from the deficiencies of its survey, the Appellant has resorted to criticising RAG for not conducting its own traffic count surveys¹⁰⁴. However, the previous Inspector dismissed this criticism as follows: "*RAG explained that it did not have the resources to commission its own survey and took the view that any survey just undertaken by residents would be viewed with extreme scepticism. In any event, RAG has provided other evidence on this topic. I do not believe that RAG should be criticised for not having undertaken that particular task, nor should it distract from the deficiencies of the Appellant's own survey evidence.*"¹⁰⁵

4.34 Responsibility rests firmly on the Appellant who is seeking planning permission to demonstrate that its development would not have unacceptable adverse impacts. That much should have been abundantly clear to the Appellant from the SoS's decision letter which stated that his "*conclusions largely rest on the failure of the Appellant to provide adequate evidence that they have properly considered and*

¹⁰⁰CD 6.2.

¹⁰¹CD 7.8.

¹⁰²CE/INQ/021.

¹⁰³One of the *Gunning* principles of consultation (see *R v. Brent London Borough Council, ex parte Gunning* (1985) 84 LGR 168 at 169).

¹⁰⁴See CD 6.18.

¹⁰⁵CD 4.2 - IR 12.433.

*addressed the safety issues.”*¹⁰⁶

4.35 What RAG has done is to produce a large quantity of “*substantial and reliable evidence*”¹⁰⁷ that the rural roads in the area, particularly the three routes, are well-used by cyclists. It also shows that there is an appreciable level of use by pedestrians and equestrians throughout the hours during which development traffic would be on the routes. Indeed, the Appellant’s own evidence demonstrates that there is a significant amount of use of the routes by cyclists despite not having surveyed on a Thursday or Friday. Numerous local cycling clubs and local families have written and presented evidence, highlighting their use of the routes including for rides on weekdays.

4.36 With regard to equestrian usage, the approach of the Appellant is again informative. Their survey only captured 2 movements¹⁰⁸. Recognising that this was likely not to provide the full picture of equestrian use given the 99 livery yards and private stables, totalling 723 stables, within hacking distance of the routes¹⁰⁹ and the lack of bridleways in the area, the Appellant then contacted six equestrian schools to further understand the routing and timings of their rides¹¹⁰. This demonstrates that the Appellant places a value on the validation of survey data with local evidence. Indeed, Mr Bird in his oral evidence often supplemented his assessment on various issues with his own observations whilst on site.

4.37 RAG’s local evidence¹¹¹ paints a vivid picture of the use of the routes and rural road network by vulnerable users in the area. As Barbara Richardson (BR) explained in her evidence the rural road network provides a crucial link between these rural communities who share many facilities and services. Each letter and witness statement from the individuals who spoke at the inquiry adds to the picture of use by the local community.

4.38 The evidence collected by RAG also confirms that the Inspector’s observations at the previous inquiry¹¹² as to usage of the rural roads in the area by vulnerable users are equally true in respect of each of the three routes and confirms significant usage during the operational hours of the development.

The Development Traffic

4.39 Access to the development site for OGV2 lorries, including class 7–10 articulated lorries of up to 16.5m in length and 44 tonnes in weight, is necessary for this development to proceed. On any given day during the project there may be up to 50 class 10 articulated lorries accessing and egressing the site via a single route¹¹³. Nothing within the proposed conditions would require the Appellant to use more than one route on any given day, save that they could not use the same route as the sole

¹⁰⁶CD 4.2 – DL98.

¹⁰⁷CD 4.2 – IR 12.494.

¹⁰⁸See CD 7.2 Table 3.7.

¹⁰⁹See RAG/3/9 and RAG/INQ/02.

¹¹⁰See CD 7.2 paragraph 3.15.

¹¹¹See RAG3/4 (Affected Communities), RAG/3/5 (Community Facilities), RAG/3/7 (Vulnerable Users), RAG/3/8 (Vulnerable Users Cyclists), RAG/3/9 (Vulnerable Users Equestrians) specifically. These include witness statements and photographic evidence.

¹¹²See IR 12.484.

¹¹³DB proof at paragraph 5.76.

means of access and egress for more than five consecutive working days¹¹⁴. Within those confines, if permission were granted, the Appellant would do what was operationally most convenient. That is what the planning permission will enable and therefore the SoS must be satisfied that such adverse impacts would not give rise to residual cumulative impacts which are unacceptable. It is on this basis that impacts must be assessed.

4.40 The evidence given to the previous inquiry was recorded by the Inspector as: *"The TA indicates that the HGVs serving the appeal site would predominantly be articulated lorries"*¹¹⁵ and *"At the inquiry, Mr Ojeil stated that he had been told by those instructing him that most of the HGVs serving the site would be large 44 tonne articulated lorries, 16.5m in length."*¹¹⁶ The Appellant now relies on 80% of the lorries during the construction and restoration phases being 3 – 4 axle tipper trucks¹¹⁷.

4.41 The first matter to note is that there are few large tipper vehicles currently using the routes in any event¹¹⁸. The second is that this statement fails to explain, as ML accepted, that for the remaining phases 6 axle articulated HGVs will primarily be utilised. The construction and restoration phases account for 2,277 and 3,410 HGVs respectively. This accounts for 5,697 out of 14,775 HGVs throughout the life of the development. All that the Appellant is saying is that 80% of those 5,697 vehicles will be 3 – 4 axle tipper trucks which equates to 4,557. That still leaves 1,140 articulated vehicles in those two phases alone and another 9,078 HGVs in the other phases where the development would rely predominantly on articulated vehicles¹¹⁹. This equates to approximately 10,218 HGVs or approximately 70% of the development traffic which will predominately be articulated vehicles. Thus, when one looks at the traffic generation across the project it remains the case that it would primarily be 6 axle articulated HGVs accessing and egressing from the site.

4.42 When one compares the predicted traffic generation presented to this inquiry with figures presented to the last inquiry there are a number of matters of note:.

- a. The anticipated overall number of HGVs that will be generated by the development has increased from 12,292¹²⁰ to 14,775¹²¹.
- b. The 50 HGVs per day cap remains the same. Therefore, the maximum number of movements on any given day is unchanged whilst the duration of the impact has increased.
- c. On the Appellant's own calculations, the number of weeks when the number of HGVs would be between 40 and 50 has risen from 12 weeks¹²² to 18

¹¹⁴See condition 8C as drafted save in the extended flow testing phase.

¹¹⁵CD 4.2 – IR 12.423. See also CD3.3 – Section 6, page 15, second paragraph.

¹¹⁶CD 4.2 – IR 12.

¹¹⁷Said in Appendix J.1 of Mr Bird's evidence at paragraph 6 that the vast majority will be 4 axle rigid HGVs.

¹¹⁸See CD 7.3, Table on page 171 and the columns for classes 5 and 6.

¹¹⁹See for example paragraphs 6 – 10 of Appendix DB J.1.

¹²⁰See CD 4.2 IR 6.33.

¹²¹This figure is the sum of the Revised Roseacre Forecast set out in tables 5.1; 5.4; 5.8; 5.11; 5.14; 5.17 and 5.19 of DB's Proof of Evidence. It does not take account of HGVs generated during the Extended Flow Test. Mr Lappin agreed this figure in cross examination. He confirmed that it proceeded on the presumption that a permit would be granted by the Environment Agency which allowed surface water to be treated on site. Were this permit not granted, the HGVs generated by the development would in all likelihood be substantially higher presented.

¹²²See DB Proof 5.74.

weeks¹²³. When one considers the number of days on which there are more than 25 HGVs, this figure jumps to more than 43 weeks.

4.43 It remains the case, as the SoS concluded at DL 97, that the volume and percentage increase in OGV2 traffic that would arise during the peak periods would be high¹²⁴. For example, Roseacre Road¹²⁵ would suffer an 833% increase in OGV2 traffic; Dagger Road¹²⁶ a 500% increase; and Higham Side Road¹²⁷ a 385% increase¹²⁸.

4.44 The information provided to this inquiry as to likely development traffic is based on experience from the construction phase and a good part of the phase concerning the drilling of Wells 1 and 2 at the PNR site. Thereafter, the experience at PNR cannot be relied upon as the remaining phases are yet to happen. At the last inquiry the figures presented were said to be the result of "very careful analysis"¹²⁹. Careful as that analysis may have been, they have now been shown to have been very wide of the mark in respect of the phases which have occurred at PNR¹³⁰. Whilst the Appellant no doubt again undertook an analysis this time, what this demonstrates is that these figures must be treated with extreme caution – they are at best an educated guess.

4.45 Related to this, at the time these figures were set out in Mr Bird's evidence, the intention seemed to have been to use an "*existing surfaced track*"¹³¹ through DHFCS Inskip. The draft conditions refer to a scheme to improve the access road through DHFCS Inskip by providing a new tarmacadam surface. Any such construction would necessarily generate traffic movements, which are not accounted for in the Appellant's assessment of traffic movements generated by the development. The portion of the Blue and Red routes which passes through DHFCS Inskip is at least 1km in length. Just to construct a 300m access road on the site is estimated to involve 326 vehicles¹³². Therefore, without needing to reach an exact figure, it can be seen that this appears to be a substantial source of additional traffic associated with the development which the Appellant has simply not accounted for.

4.46 When one considers the Revised Indicative Roseacre Wood Programme¹³³, it is evident that there is a planned overlap between approximately 11 months of various phases¹³⁴. However, this planned overlap does not appear to have been reflected in the Appellant's HGV Profiles for the Project¹³⁵. This indicates that the number of days on which the HGV peaks will occur are likely to be higher than shown.

¹²³See DB Proof, page 51 Table 5.23.

¹²⁴See GK Proof - RAG/2/1 - Table on page 26.

¹²⁵GR.

¹²⁶BR.

¹²⁷RR.

¹²⁸Presuming only 1 route was used on a given day where the 50 per day cap was utilised.

¹²⁹CD 4.2 IR.

¹³⁰DB Proof Table 5.1 shows that for the construction phase previous estimates were 1,244 vehicles. This has risen to 2,277 this time around.

¹³¹See DB Proof at 3.18.

¹³²See Appendix E to DB Proof.

¹³³See Appendix D to DB Proof of Evidence.

¹³⁴Site construction and conductor installation – 2 months overlap; initial flow test wells 1 and 2 and Drilling 3 and 4 – 3 months overlap; fracking 3 and 4 and pipeline installation – 4 months overlap; initial flow test 3 and 4 and pipeline installation – 2 months.

¹³⁵See Table 5.23 of DB Proof.

4.47 Indeed, ML's explanation of the North Sea method of offshore delivery calls into question the reliability and accuracy of the project HGV profiles presented. This is because, in accordance with his explanation, Cuadrilla does not work to "just-in-time delivery" but bring HGVs onto and off site when it is most convenient for operational purposes to ensure continuous operations on site. The estimates are necessarily speculative at best. All that can therefore be relied upon is the 50 HGV per day cap.

The Use of Three Routes

4.48 The Appellant now proposes a routing strategy which would allow the site to be accessed by using any one of three routes: "GR", "RR" and "BR". The G & RRs had both previously been considered and rejected by the Appellant. The BR is essentially the same as the preferred route presented at the last inquiry.

4.49 As DB explained three routes would not only mitigate the impacts of the development but would also provide operational flexibility to enable the Appellant to better deal with protestor activity.

4.50 Both the BR and the RR are entirely reliant on the use of DHFCS Inskip. If access were unavailable through that site, all traffic would be required to route down the GR¹³⁶. A letter presented to the last inquiry¹³⁷ refers to there being no objection in principle from the Defence Infrastructure Organisation to the Appellant traversing over DHFCS Inskip to access the site, but the precise terms of that access have not been made available to the parties at the inquiries. It is likely that any such licence to use it would be revocable at will by the Ministry of Defence. Whilst the Appellant has suggested a nuclear war, terrorist incident or localised flooding as the exceptional circumstances that could trigger a revocation, there is nothing in evidence to support that. Additionally, the only evidence as to flood risk at DHFCS Inskip, was submitted by LCC¹³⁸.

4.51 In circumstances in which only the GR were available, the Appellant does not appear to have assessed how one way working of the GR would be achieved, particularly the section along Roseacre Road. If the planned two-way working on the section of road between Elswick and the A585(T) were to be progressed, then there may be a need for at least some vehicles to wait in the village of Elswick before accessing Roseacre Road. There are obvious problems with this in such a restricted area, which do not appear to have been planned for or considered by the Appellant.

4.52 The Appellant does not control the use of DHFCS Inskip. However, if the MOD only permitted one HGV per week to travel through DHFCS Inskip, to the BR or the RR, that would be sufficient to enable all other HGV traffic to route along the GR without breaching the draft TMP or proposed conditions.

4.53 On the hypothetical issue of whether permission could be granted for a scheme which relied on the use of fewer than three routes, RAG's position is as follows:

- a. The use of each route individually or in combination with any other route or routes would give rise to unacceptable residual cumulative impacts in terms

¹³⁶DB at paragraph 4.16 of his rebuttal. It is acknowledged that the conditions as now drafted would require all traffic to the site to stop in the event that DHFC was unavailable for a period of 5 days or more as they could not continue to use the Green Route in those circumstances.

¹³⁷CD 31.29.

¹³⁸LCC 1.4 PP6-10.

of para. 109 of the NPPF. Therefore, any scheme which used either one, two or three of the routes would be unacceptable in highway terms;

- b. Significant parts of the evidence presented to the inquiry have been predicated on all three routes being available for use at any one time – e.g. DB explains in his rebuttal¹³⁹ that it is the “*use of three routes*” that enables no two Cuadrilla HGVs to meet. There is no evidence before the inquiry that this mitigation measure could be achieved in any other manner;
 - c. The draft conditions and TMP have all proceeded on the use of three routes;
 - d. A scheme which permitted the use of fewer than three routes would be a substantially different prospect to that which has been consulted upon and which formed the focus of this inquiry;
- and
- e. Without, at the very least, further consultation and consideration, RAG would therefore have serious concerns as to the lawfulness of a decision which permitted something other than a three route scheme.

Unsuitable Rural Roads

4.54 These three routes are inadequate, unsuitable and unsafe for the development traffic without physical and non-physical mitigation measures being implemented. Each of the routes passes along substantial sections of road which were simply not designed to accommodate this sort of traffic safely.

4.55 During the Inquiry the Appellant submitted a unilateral undertaking to pay up to £100,000 to repair some of the verges and carriageways on the routes prior to the commencement of development. It is a measure that only emerged after the Appellant’s case was heard. Whilst, such a gesture would be appreciated it would be foolhardy to think that this could transform such unsuitable roads into safe and suitable roads for the development traffic to pass along or to overcome the shortcomings of the routes. No detail is given as to what the sum would achieve. The Baseline Highway Condition Survey which underpins the use of that sum has yet to be undertaken. It is consequently impossible to judge whether this sum is sufficient to cover any reasonably necessary works.

4.56 RAG’s evidence demonstrates that the mitigation measures proposed by the Appellant would be ineffective and sometimes counter-productive. They do not adequately address the “*inherent deficiencies and risks*”¹⁴⁰ associated with the use of each of the three routes. Moreover, they simply do not come close to adequately addressing “*the particular safety issues associated with vulnerable road users and would not serve to adequately address the short comings*”¹⁴¹ of the three routes.

Accident Record

4.57 The Appellant’s assertion that very significant weight should be placed on a negative accident record misses the point that the SoS and the previous Inspector

¹³⁹Page 20, para. 2.36, bullet point 6.

¹⁴⁰See CD4.2 – DL paragraph 94.

¹⁴¹See CD 4.2 – DL paragraph 96.

were clearly aware of. RAG agrees with the previous Inspector¹⁴² and SoS¹⁴³ that the accident record on the routes is a material consideration. As they identified *"it does not automatically follow that because accidents have not happened in the past, they would not be likely to happen in the future, given the new scenario that would arise as a result of the proposed development."* The previous Inspector and the SoS were faced with similar accident records. There is no good reason to depart from those conclusions on the accident record.¹⁴⁴

4.58 The suggestion that a lack of accidents shows a road is safe just as a poor accident rate shows it is dangerous, is a fallacy. A review of the accident record is a secondary step once the safety or suitability of a particular junction or section of road had been assessed for the development traffic. Where a proposal will bring about change in the composition of traffic or use of a highway, as here, the observations of the previous Inspector and SoS are plainly correct and as the Appellant has acknowledged *"there are very few OGV2s currently travelling along the three routes"*¹⁴⁵. It is the safety and suitability of the routes, for use by that scale of HGV proposed, which needs to be considered here.

Ineffective Mitigation Measures

4.59 DB concludes that *"there is no evidence to suggest that there will be a material increase in the risk to vulnerable road users"* because of the limited accident history concerning vulnerable users on the routes, driver behaviour and driver education. There are striking similarities between the approach of DB at this inquiry and the approach expressly rejected by the Inspector and the SoS following the previous inquiry.

4.60 The absence of accident history is not itself a mitigation measure and hides the significant number of near misses currently being reported, which could very easily have been far worse. Looking at 'personal injury' accidents to work out whether the impacts of the development would be unacceptable does not find any support in the wording of paragraph 109 of the NPPF.

4.61 The Inspector at the previous inquiry was conscious of the problems of relying on driver behaviour and education. As was explained at IR 12.418 the TMP presented to the previous inquiry similarly proposed driver education and set out the key parameters of an enforcement strategy for contractors who do not adhere to the TMP. The Inspector nevertheless, whilst noting the driver education programme, pointed out that the TMP placed heavy reliance upon the behaviour of individual drivers and in her view did *'not adequately addresses the particular safety issues associated with vulnerable road users'*.

4.62 GK explained the risks posed to vulnerable road users by reference to passing places. The fact that there are nearly 40 is a strong indication that the routes are clearly unsuitable and unsafe for the development traffic. His concerns were not with two OGV2 class 10s being able to pass but that the imposition of a passing place has taken away the verge, which often provides a final refuge for VRUs. Once the

¹⁴²CD 4.2 IR12.497.

¹⁴³CD 4.2 DL96.

¹⁴⁴The importance of the principle of consistency of decision making is explained in *North Wiltshire District Council v Secretary of State for the Environment* (1993) 65 P & CR 137 at 145 per Mann LJ.

¹⁴⁵CD 11.4 – paragraph 12.

passing places are in position, there is a real risk that the road widening would actually lead to vehicles passing at higher speeds, whilst removing the safety net of the verge for VRUs.

4.63 One should consider the implications of this if VRUs were to be confronted by traffic coming in opposing directions, perhaps a car and a lorry from the development or even non-development traffic, once the passing places are in position. There is a real risk that the road widening would actually lead to vehicles passing at higher speeds and remove the safety net of the verge for those VRUs. Passing places would be a common experience for pedestrians, twelve needing to be negotiated along Roseacre Road alone.

Visibility

4.64 The point about inter-visibility, not only between passing places but also between decision making points ahead of those passing places, was something the previous Inspector considered. As she explained *"Furthermore, as LCC points out, to make the passing places scheme workable it is not a case simply of a need for intervisibility at the passing points themselves. There also needs to be sufficient forward visibility at a "decision point" before any particular passing place to see an approaching vehicle, which has proceeded beyond the next succeeding passing point and then to be able to stop in time. LCC does not consider that that has been provided and that significant amounts of reversing with associated risk of accidents may be occasioned in consequence"*¹⁴⁶.

4.65 Reliance on visibility over third party land arises in a number of places in order to ensure the safe passage of vehicles either to use and to see the next passing place or to negotiate junctions or bends safely. It is accepted by the parties that the hedges that run along the edge of the boundary may grow and interfere with that visibility. In respect of this power:

- a. whilst views may in some locations currently be obtainable, the appellant has no control over third party land;
 - b. there is no evidence before the inquiry to show that there are any requirements (e.g. in a planning condition or otherwise) to maintain sightlines over any of the third-party land;
 - c. there is no evidence before the inquiry that section 154 has been used to ensure visibility is maintained over any of the roads;
- and
- d. if the land becomes unkempt (e.g. by virtue of the hedges growing and not being adequately managed), visibility could be severely restricted in a number of places –NS provided evidence in support of this proposition.

4.66 To overcome these problems, the Appellant relies on a covenant to notify the Council of any restriction on visibility caused by unkempt hedge growth and the Council's powers under section 154 to serve a notice on the relevant landowner to remove the obstruction to drivers' views. However, the ability to use a statutory enforcement power, to maintain satisfactory visibility, imposes a substantial burden on

¹⁴⁶ IR 12.470.

the Highways Authority to enforce. The obstruction will have to be investigated by the Council and they must be satisfied that it is appropriate to use the draconian power provided for by section 154, balancing the rights of the landowner with the need to ensure visibility on the highway.

4.67 Section 154 does not require a notice to be served in any event and a third party served with a section 154 notice may appeal to the Magistrates' Court to set aside the notice. It cannot be assumed that the Magistrates' Court would concur with the view of LCC; the appeal process would otherwise be meaningless. Furthermore, it could take many months for the appeal to be resolved and therefore many months before visibility could be restored (if at all).

4.68 RAG submits that LCC do not have enough control over large proportions of third party land over which the appellant relies to ensure that adequate sightlines are maintained. These are essential for ensuring safety along the three routes. Extreme caution is required before placing reliance on section 154 to ensure adequate visibility is achieved to enable the three routes to be operated safely.

The HGV hours

4.69 AE exposed the Appellant's decision not to access or egress from the site on Saturdays, Sundays or Public Holidays as a recognition by the Appellant that the use of the routes by development HGVs will create additional and unacceptable hazards for vulnerable road users rather than a significant improvement for vulnerable road users as heralded by the Appellant. That was premised on the false assumption that there is no or very little use of these routes by vulnerable users during the proposed HGV hours. The Appellant's own cycling data shows that that is not the case and it is supplemented by the volume of local evidence obtained by RAG on other users. It will not be of any comfort to week day users to know that they could have avoided conflict with development traffic if they stayed away during the week. If such a measure is necessary to achieve safe and suitable access to the site on Saturdays, it is plainly necessary for those vulnerable users who use the routes during the week as well. It also clearly does nothing to provide protection during school holidays.

4.70 DB tried to justify the obvious discrepancy between the treatment of cyclists at weekends with the treatment of cyclists during the week on the basis that those weekday riders were more likely to be experienced cyclists. There is no evidence to support this and there is no reason to think that riders during the week are inherently more experienced and at any less risk than those who ride at the weekend. People should be able to use these routes safely at all times.

4.71 One of the reasons for limiting the routing hours on the RR was to avoid conflict with school children waiting for school buses. It is important that such conflict is avoided. An example was given of a verge where children wait on the RR. The Appellant agreed that parents would be concerned about children waiting on stretches such as this. However, there are stretches such as this on each of the routes. Conflict with school children is equally likely at Thistleton, Inskip and Elswick, as well as on the more rural roads. Another example, from the GR, can be seen on page 26 of RAG/3/7 – photo 2. In the case of the BR this is a retrograde step from the previous inquiry, when the TMP provided that HGV movements to and from the site would be planned to consider the school run.

Swept Path Analysis

4.72 The Appellant has undertaken swept path analyses across the three routes. There are several important features and limitations of these swept paths which must be appreciated before one can sensibly analyse what they show. In particular, the analysis was not supported by any detailed methodology and as is explained in detail by HE, with regard to the A585(T)/Thistleton Road junction, the swept paths rely on “*inch perfect*” movements.

4.73 Whilst these comments are directed at this A585(T) junction, it is readily apparent that this same failing occurs in the approach the Appellant has taken to swept paths across each of the three routes. The Appellant’s swept path analyses all rely on this same ‘*inch perfect*’ movement. In fact, the only place where the Appellant has applied the recommended safety margin of 0.5 metres is in the revised swept path for the A585(T)/Thistleton Road junction set out in DB’s Rebuttal.

4.74 The Appellant has not applied a safety margin to their assessment of any other part of the route, in many cases they have not even allowed for wing mirrors. This fails to accord with industry good practice as explained by HE. The reasons for allowing such a margin are perhaps obvious:

- a. Manoeuvring a massive lorry is rarely if ever going to be an inch perfect activity, even for the most skilful of drivers;
 - b. The carriageway edge is often damaged and unsuitable particularly on these rural roads and drivers do not tend to drive on it for this reason;
- and
- c. There will often be services at the edges of carriageway, which drivers may seek to avoid driving over.

4.75 Consequently, drivers tend not to stick religiously to the very edge of the carriageway. Additionally, vehicles may not be able to achieve the same manoeuvrability when the roads are wet or when the vehicles are heavily laden. In wet weather, pooling will need to be avoided, simply because the driver does not know what it hides. In failing to follow a cautious approach, the Appellant has failed to cater for the reality of vehicle movements and the swept paths must therefore be treated with extreme caution as they fail to provide for the recommended margin of safety.

4.76 The Appellant presumes that if a particular vehicle can perform a given manoeuvre on a desktop it will be able to replicate that same manoeuvre precisely in reality every time and will consistently choose to. This is a dangerous and plainly erroneous assumption in respect of what are necessarily theoretical drawings.

4.77 DB accepted that all a swept path can show is one way in which a vehicle may undertake a manoeuvre at a particular location. e.g. the Salwick Road/Inskip Road Junction (Drawings 172806/R/B14 Revisions A and Revision B). Revision B shows two ‘*Alternative Vehicle Paths*’ side by side. This perfectly illustrates that there is more than one way in which a vehicle may undertake a manoeuvre.

4.78 The Appellant’s witnesses were unable to profess any expertise or experience of how these large HGVs work and operate in reality. TH’s evidence, coming from a person with life long experience of operating and managing HGVs is to be preferred.

DB agreed that the “acid test” is to get onto the site and look at things in their 3D reality. This is exactly what TH has done in coming to a composite judgment of the risks faced by the HGV drivers and other road users who they may conflict with. TH has used his professional judgment to identify where junctions, bends and sections of the route are safe and suitable for the type of traffic generated by the development and where they are not.

RAG Risk Assessments

4.79 TH’s risk assessment methodology is set out in his Appendix 1. The first part of his assessment is to characterise any hazards associated with the operation of development traffic through bends and the impact on other road users. DB expressed his general agreement with this first part of TH’s methodology. His professional judgment set out therein is unaffected by whether one considers the second part of his assessment, which is to adopt a simple set of industry accepted criteria to assess the potential severity of a prospective accident. Support for this approach is found in documents such as CD 8.6 at 6.5.2 on pg. 049.

4.80 As the Inspector recognised last time, *“On behalf of RAG, Mr Hastey has carried out a full risk assessment of the preferred route to and from the site and a consideration of the safety impacts both for the drivers of the vehicles going to or from the site and for other road users. This has been undertaken in accordance with MfS and the “International Association of Oil and Gas Producers recommended practice”.*¹⁴⁷

4.81 TH’s assessments were the subject of several criticisms by the Appellant. Those criticisms, as the previous Inspector recognised, do not undermine his identification of the *“inherent physical deficiencies”* of the routes and the *“obvious implications for highway safety”*. As to the criticism regarding consideration of mitigation measures – he provided commentary in his evidence in chief as to whether the physical mitigation proposed changed his conclusions at the key junctions and bends where mitigation is being proposed.

Site Access

4.82 One mitigation measure proposed by the Appellant, to address the problems associated with accessing and egressing, is the use of banks-men at the entrances to the site and DHFCS Inskip. This is referred to within DB’s rebuttal in answer to TH’s concerns about visibility in accessing and egressing the site safely. Whilst this appears to be a desirable option, when one explores what is now provided for in the revised TMP, it is only on Roseacre Road where reference is made to there being a single banks-man. RAG fails to understand how the Appellant can seek to rely on such mitigation measures, to overcome deficiencies at the DHFCS site entrance on Inskip Road, without explaining the circumstances in which it will actually be available and how it will be secured.

The Routes

The Blue Route

4.83 The BR cannot be used unless DHFCS Inskip is available. There will consequently be times when the BR cannot be used by the HGV traffic generated by

¹⁴⁷ IR12.450.

the site. The BR was the 'preferred route' presented to the previous inquiry. It is the route that the previous Inspector found to be "*unsuitable for its intended purpose*". The clear conclusion of the Inspector was that there were: "*deficiencies in the route [which] would be likely to result in a real and unacceptable risk to the safety of people using the public highway, including vulnerable road users.*" This Inspector and SoS will need to consider whether that conclusion is still valid in the light of the mitigation measures now proposed and whether those measures address the "*inherent physical deficiencies*" of the route.

4.84 The Appellant's swept paths for the BR are principally found in DB's Proof of Evidence at Appendix I. TH's assessment is set out in his Appendix 4 and was supplemented in his oral evidence.

Inskip Road/Salwick Road Junction

4.85 This junction is shown on Drawing 172806/R/B14 Revisions A and. TH addresses it at pages 8 – 9 and 14 -16 of his BR assessment. It is a junction that was of particular concern at the previous inquiry. The Appellant's swept paths again give rise to the same concerns. The Revision A drawing clearly shows that for the outbound HGV to make the left turn into Salwick Road, an articulated vehicle would position itself in the opposing lane along Inskip Road. DB recognises that this is a likely scenario at page 79 of his proof of evidence, but he denies that it is problematic. TH also raises the same probability. TH is particularly concerned that if it were to do so, then a vehicle travelling in the opposite direction along Inskip Road would not be aware of the position that the articulated vehicle had taken up, in the road. He points to two features which make this a real likelihood. Firstly, there is a deceptively significant bend to Inskip Road at the junction, such that visibility between an oncoming vehicle from the direction of Wharles and the HGV would be over a hedge. This means that the oncoming vehicle would not know which lane the HGV was in. Secondly, Pointer Wood would appear behind the HGV and is likely to act to deceive the on-coming driver as to which lane the HGV is travelling in.

4.86 The speed limit on Inskip Road is 60mph and the 85th% speed for cars is 56/57mph. This is the fastest recorded 85th% on any part of the network. Vehicles travelling in the opposing direction to the HGV are likely to be doing so quickly. The Appellant has not proposed any mitigation to address this issue. The provision of a passing place on Salwick Road does not mitigate this problem because Pointer Wood would obstruct the outbound HGV driver's visibility to that passing place.

4.87 The Appellant's Revision A swept path shows that the outbound articulated vehicle would encroach substantially into the opposing carriageway as it entered Salwick Road. There is an even more significant encroachment in the alternative swept path shown on Revision B. Both would put it into conflict with other vehicles on Salwick Road. However, the latter was not the path the designer originally envisaged the outbound vehicle taking. It appears to have been produced to show that an outbound articulated vehicle could undertake the left-hand manoeuvre into Salwick Road without starting from the opposing lane on Inskip Road. TH's evidence is that, whilst theoretically possible, it was not the likely path a driver would take.

4.88 Whilst the provision of a passing place on Salwick Road may help to address this second issue, it is by no means a satisfactory solution. At the point at which an inbound vehicle, of any description, would need to decide whether to wait in the passing place or progress to the mouth of the junction, its visibility of the outbound HGV would be obscured by Pointer Wood. If it failed to give way at the passing place,

this may result in conflict between a vehicle travelling inbound on the route and an outbound HGV. It is very easy to envisage a situation where an outbound HGV driver on Inskip Road is already in the opposing lane when the junction becomes blocked by traffic turning out of Salwick Road. The HGV would then become stuck, endangering the driver and other traffic.

Salwick Road and the Turn into Dagger Road

4.89 The remainder of Appellant's swept paths for Salwick Road are shown on drawing 172806/R/B13. The Appellant's mitigation in respect of this narrow and unsuitable section of road relies on a series of passing places, the suitability and effectiveness of this form of mitigation is addressed elsewhere (paras. 4.59-4.63).

4.90 Insert A of Drawing B13 shows, consistent with TH's assessment, that an articulated vehicle making either the inbound or outbound turn from Salwick Road into Dagger Road would encroach onto the opposite carriageway in conflict with all road users coming in the opposing direction unless one or the other gives way. Again, the Appellant's swept paths rely on the whole of the carriageway being usable and visibility over third party land being available. As the photographs set out in TH's assessment of this junction on pages 23 – 24 demonstrate, the inside of the bend suffers from flooding due to its poor condition. This acts to reduce the usable width of the road.

4.91 The mitigation proposed is a slight widening on Salwick Road before the junction for the outbound vehicle. There would be no visibility of this passing place for any user coming in the inbound direction as there is a hedge in the way and this is likely to substantially reduce the effectiveness of the mitigation. It is also on the wrong side of the road for the outbound vehicle, which would be able to see it. It does not in any event resolve the prospect of conflict at the junction with Dagger Road between an Appellant OGV2 and all other road users.

The Dagger Road Traffic Lights

4.92 GK points out that they may address circumstances where two HGVs would otherwise meet along that section of the route but they will do nothing to address the risk of conflict between a Cuadrilla HGV and any non-HGV motor vehicle or a conflict with any VRUs. Those are issues that the Inspector and SoS considered to be necessary to mitigate following the previous inquiry. At best they achieve nothing, at worst they create confusion. This is a significant and concerning omission.

4.93 Widths along this section are some of the narrowest anywhere along the three routes. These are shown on Drawing 172806/R/B11 and there are long stretches where the width is significantly less than 5m and insufficient for an HGV to pass a non-HGV vehicle safely. Use of verges, particularly by articulated vehicles, is problematic for the reasons explained in detail by TH. Whilst there are currently 60 HGVs per 12hr day using this section of the route, when one considers the number of articulated vehicles classes 7 – 10 that figure drops sharply to 4.

4.94 The conclusions of the previous Inspector which applied to this section of the route, remain the case: *"the increase in large articulated HGVs on narrow stretches of rural roads on parts of the preferred route would inevitably create additional and unacceptable hazards for [cyclists, pedestrians and horse riders] which I do not believe have been fully grasped and planned for by the Appellant."*

4.95 There are numerous other problematic aspects of reliance on the traffic lights as

mitigation, which LCC explained in their evidence. For example, the series of accesses to farms, other properties and an agricultural contractor's yard between the two signals. Whilst the Appellant suggested solutions could be found to this obviously serious problem, no evidence to support that assertion was put before the inquiry. They have once again failed to show that their proposed mitigation is "*workable in practice*" and to design a scheme which would "*achieve the desired outcomes.*" There are once again "*inherent deficiencies and risks associated with what is proposed that have yet to be addressed*".

Dagger Road/Treales Road/Station Road – The Hand and Dagger Junction

4.96 This is another junction which was dealt with in significant detail in the Inspector's Report: "*RAG draws attention to the dog-leg junction next to the Hand and Dagger Pub being particularly awkward, involving complex manoeuvres and crossing a busy road at an existing public house. As indicated above, the Road Safety Risk Assessment carried out on behalf of RAG identifies a number of specific concerns relating to the proposed use of this junction by HGVs. When exiting from Dagger Road into Treales Road, the outbound HGV is required to begin its manoeuvre from the "right-hand" traffic lane (in conflict with traffic travelling in the opposite direction) with a wide swing, turning left into Treales Road in "head on" conflict with oncoming traffic travelling west towards Kirkham*"¹⁴⁸.

4.97 The Appellant's swept paths on Drawing 172806/R/B10 show that this section of the Inspector's report accurately describes the manoeuvre which the outbound vehicle would need to undertake. Whilst the swept path analysis that the Appellant has produced shows the outbound vehicle straddling the centre line on Dagger Road, this is a path which allows no margin for error and TH's assessment is that the driver is more likely to take a wider line than the one the Appellant has shown to be theoretically possible. Treales Road is a road where vehicles are permitted to travel at 60mph and the 85th% speeds shown on CE/INQ/002 show vehicles travelling at 44 – 47mph at the location of the survey. The appellant's reliance on visibility is also open to considerable doubt, not only because the Treales Road traffic has priority so that it is not likely to expect a lorry to come out of Dagger Road, but also because the visibility into the junction may encourage some drivers to accelerate as they leave the bridge on Treales Road when travelling west.

4.98 The outbound vehicle would then travel along a short section of Treales Road before quickly having to get itself into a position to enable it to turn right into Station Road. As the Inspector described at the last inquiry: "*This is highlighted as being an extremely dangerous manoeuvre for an HGV to undertake. The exit from Station Road is split into 3 sections. The left-hand exit is for westbound traffic; the centre exit is for traffic turning right and the right hand lane is for entry from either direction off Treales Road. RAG's Risk Assessment points out that outbound vehicle trailers would be in conflict with traffic in the centre lane as it turns right off Treales Road. Furthermore, due to the adverse camber on the road junction at a critical point it identifies the potential for an articulated vehicle to overturn during the right turn. This risk is said to be particularly acute where the load is unstable such as in the case of flowback fluid. Mr Hastey describes the turn into Station Road as an exceptionally dangerous manoeuvre with this type of tractor/trailer combination stating: "The tractor is travelling up a bank and almost doubling back on itself against the steep*

¹⁴⁸ IR 12.456

adverse camber in the road. The Trailer is even more vulnerable turning into Station Road against the acute camber with a High Centre of Gravity". RAG also raises concerns in relation to HGVs being in conflict with oncoming traffic on Treales Road when travelling inbound and turning left out of Station Road and right onto Dagger Road from Treales Road"¹⁴⁹.

4.99 The Appellant's swept paths show that without any margin for error or alternative alignment, the outbound vehicle may just manage to stay within its lane on Station Road but there is every chance that the articulated vehicle would take a different line to the one shown in the drawing causing the trailer of the articulated vehicle to be in conflict with the traffic in the centre lane. TH is concerned that if this alternative line is taken and there is traffic waiting to turn right at the junction, the trailer will take the shortest route and will conflict with traffic waiting in that lane. TH's assessment on page 44 shows that vehicles may be parked on the kerb to access the canal and other amenities in the area. If vehicles were there, the articulated vehicle would be unable to take the line shown by the Appellant and would be forced into conflict with the centre lane of traffic on Station Road. The swept paths show that the concerns regarding the inbound movement are accurate.

4.100 The only physical mitigation measure which is vaguely in the vicinity of this problematic junction is a passing place on Dagger Road. It does not overcome these issues. Instead the Appellant points to the use of this junction by HGVs at present concluding that no mitigation is needed. This is described as an "*intensification and not a change in character of the use*". However, the matters raised by TH are of particularly acute concern because articulated vehicles, which use this route infrequently at present, are seeking to manoeuvre the junction.

4.101 There is no evidence as to how many HGVs are using this junction at present or the manoeuvres they undertake at the junction. The best we have is data from Automatic Traffic Counts on the Station Road and Dagger Road links. Neither of these allow for traffic joining Station Road or Dagger Road directly from Treales Road i.e. without undertaking the whole of the manoeuvre or undertaking the manoeuvre in the directions other than the ones which concern TH. However, even if we take the figures in the Baseline Transport Conditions at their highest, they demonstrate that the junction is very lightly trafficked by articulated vehicles at present. For Station Road, the average two-way HGV flows are 81 of which only 5 are articulated vehicles. The figures for Dagger Road are even lower. 60 HGVs, only 4 of which are articulated vehicles. The differential between the two roads confirms that not all the vehicles on Station Road undertake the entirety of the dog-leg and vice versa. Therefore, on any view the development would result in a substantial change in the composition of traffic using the dog leg junction. To simply say that HGVs currently use the route entirely misses the fundamental point about the composition of the development traffic.

Molly's Plantation to the Railway Bridge

4.102 A section of road, which passes through an area known as Molly's Plantation, is shown on Drawing 172806/R/B09. The Appellant recognises that outbound vehicles entering and travelling south along Station Road are likely to be in the middle of the road rather than running in their own carriageway at this point. The road here is narrow and the rather unsatisfactory solution proposed by the Appellant is to warn of

¹⁴⁹ IR 12.457.

the potential for vehicles to be in the middle of the road. As the previous Inspector observed: *"a potentially unsafe layout, even though made more understandable by signage, does not represent a particularly satisfactory solution."* TH also highlights the risk to VRUs, along this section of road, since it passes through a plantation. As pages 53 and 54 of his Blue Route assessment shows, there are signs of the road collapsing at its edges, which would reduce the usable carriageway width. Given the drop offs to the side of the carriageway, if the trailer of an articulated vehicle were to stray onto the verge, there would be a high risk of roll over. There is a narrow pavement on one side of the road. However, drawings B09 and B08 demonstrate the very tight squeeze for vehicles along here even allowing for no margin for error and requiring the wing mirrors to overhang the pavement when HGVs are passing, thereby putting them into conflict with pedestrians on the pavement.

4.103 Drawing 172806/R/B07 shows the double bend to the south. On neither of the bends is two-way HGV working possible. The visibility requirements rely on drivers being able to see across third party land and are reliant on the hedges remaining low enough for the entirety of the permission. The swept paths show that articulated vehicles will not just be in conflict with other HGVs but with other motor traffic as well. On the inbound journey the vehicle is shown to overhang the pavement putting it into conflict with any pavement users.

4.104 At the railway bridge TH refers to concerns that the bridge, having relatively recently been installed in its present form, is narrow and has poor visibility over the apex of it. It is a section of route to which the 60mph speed limit applies.

Junction with A583

4.105 In order to understand TH's concerns at the junction, it is informative to compare the Appellant's drawings 172806/R/B02 Revisions A and B. The first of these drawings shows the rear-end of the articulated vehicle swing out as it makes the right turn on the inbound journey. TH is concerned that this will conflict with vehicles in the west-bound running lane. Whilst Revision B does not show this same swing out, there is no reason why an articulated vehicle would be more likely to make the turn as shown in Revision B than Revision A. There would be real risks associated with it taking the path shown in Revision A due to the potential for conflict with fast moving traffic. Pulling out on a right turn onto the A583 would also present problems for an articulated vehicle, given the need to cross the centre lanes of fast moving traffic.

Summary of Blue Route

4.106 In summary, the Blue Route fails to provide safe and suitable access to the site for all users. The route's deficiencies, combined with the change in the traffic associated with the development, would result in real and unacceptable risks to the safety of people using the public highway, including vulnerable road users. The mitigation measures proposed are not adequate or satisfactory. Use of the route would not be in accordance with JLMWLP Policy DM2 or CS Policy CS5 and there would be an unacceptable impact on highway safety, contrary to paragraph 109 of the NPPF.

The Red Route

4.107 The Red Route was not promoted by the Appellant at the last inquiry. Indeed, in respect of a very similar route, save that it did not use the DHFCS Inskip site, it was concluded by the Appellant that it *"should not be used by site HGV traffic."*

4.108 The Appellant's swept path analysis of this route is contained in Appendix H to

DB's Proof of Evidence. TH's assessment of this route is contained in his Appendix 2.

After the Green Route and the Red Route Separate (Lodge Lane Elswick)

4.109 The route is too narrow for two HGVs to pass each other for long parts of this section as shown on Drawing 172806/R/RO4. Once the inbound vehicle has left Elswick there is a 60mph stretch of road where 85th % speeds were recorded at 42-43mph. The Appellant relies on HGVs giving way to each other but evidence on site demonstrates that there is currently significant overrunning of verges. Given the differing widths throughout this section, the need to give way is unlikely to be immediately obvious to a driver, creating the potential for conflict. There is no physical mitigation proposed along this section of the route.

Lodge Lane Double Bend

4.110 Drawing 172806/R/RO5 shows a double s-bend, the inbound approach to which is shown on TH's assessment at pages 14 -15. It is notable that to the left on the inbound approach to these bends, even during the winter, there are high hedges and trees which obscure visibility around the bend. To make the first left hand bend, the inbound OGV2 would need to be in the opposing lane before the bend. It would be in conflict with all road users travelling in the opposite direction. The same would occur for the inbound journey at the next right-hand bend. This would be repeated in reverse for the outbound journey. The Appellant's swept paths show this movement but rely on inter-visibility around the first inbound bend which simply does not exist. The Appellant also refers to a section between the two bends where two HGVs may be able to pass but if this were missed there would likely be a need to reverse. This would bring with it obvious dangers associated with undertaking such a manoeuvre on a bend.

4.111 Whilst this section of the route is currently used by 177 HGVs per day, this masks the fact that only 13 of those vehicles were articulated lorries. It is obvious that an articulated lorry would need to take a particularly wide path to make the turns and would therefore encroach substantially more into the opposing lane than is likely to be the case with the majority of traffic at present.

Lodge Lane/Preston Road Junction

4.112 This junction is shown on drawing 172806/R/RO6. By way of physical mitigation measures the Appellant has proposed installing a passing place opposite the mouth of the junction. The Appellant also relies on the use of a pre-existing area of hard-standing at the bend on Preston Road, immediately to the south of the junction. Even utilising the new passing place on Preston Road, the inbound HGV has to cross the centreline of the mouth of the junction on Lodge Lane before it turns right. Were the passing place to be blocked – for example by a parked vehicle – the inbound HGV is likely to need to substantially cut across the opposing lane to make the right turn.

4.113 Having manoeuvred that junction, almost immediately, the articulated lorry would then need to get across into the opposing lane, again putting it into conflict with all opposing traffic, as it turns left around the bend on Preston Road. If the inbound vehicle gets this tight turn wrong, TH explains the risk of its trailer mounting the apex of the bend and the potential for it to roll over due to its high centre of gravity. The articulated vehicle then remains in the opposing lane for a substantial portion of this section even on the Appellant's own drawings.

4.114 On the outbound journey, at the bend on Preston Road, the Appellant's

drawings show that the articulated vehicle's trailer would be well across into the opposing traffic lane putting it into conflict with all traffic. It would then need to sweep out to take the left-hand turn at the junction and hope that nothing was blocking the mouth of the junction. Once the vehicle had turned into Lodge Lane it would not be able to return into its own lane for a substantial distance. The Appellant's answer to these serious concerns is given in DB's evidence at table 6.2 and it is that HGVs use the route currently, without accident. The nearest survey point is on Preston Road which shows that 103 HGVs use this section of the route. There is no indication as to whether or not they have driven along or are going to drive along Lodge Lane as no survey was undertaken at the junction or along Lodge Lane itself. However, of those HGVs recorded, again very few are articulated vehicles (only 6 out of the 103 vehicles). It is not just the potential for conflict with other HGVs which is of concern, but the risk for conflict with all other road users, including VRUs on this section of the route.

The Bends at Crossmoor

4.115 This double 90 degrees set of bends is shown on the Appellant's drawing 172806/R/R08. The Appellant proposes no physical mitigation here. From the Appellant's own drawing it is self-evident that there would be substantial incursion into the opposing lane by the articulated vehicles shown in the swept path. Inter-visibility relies on seeing over hedges and third-party land. In each direction, unless vehicles gave way, there would be conflict with traffic in the opposing lane. One must consider the cumulative impact on the HGV driver of repeatedly needing to confront traffic in the opposing lane and that this cumulative impact would be severely detrimental to safety.

The Corner at Inskip

4.116 This particularly challenging and problematic corner is shown on the Appellant's drawing 172806/R09 at Insert A. The only mitigation the Appellant has proposed here is the installation of a convex mirror. LCC explored the inadequacies of this mitigation measure in detail in their evidence. As TH explained, it would be ineffective in inclement weather.

4.117 The photograph on page 37 of TH's Risk Assessment gives a view of the inbound approach to the corner. On the Appellant's swept path an inbound vehicle, when making the right turn, would cut across the opposing lane in conflict with all traffic travelling in the other direction. In order to make that turn, as TH explained in evidence, the nearside foremost wheel of the tractor unit would need to be positioned as close to the nearside kerb as possible. The Appellant's swept path analysis suggests that the bonnet of the tractor unit is likely to encroach onto the pavement where pedestrians may be walking. Then, as the tractor swings round, there will be a period when the trailer is also likely to encroach onto the pavement as it will continue beyond the point that the tractor reached due to the pivoting of the two parts of the vehicle. The third point of possible conflict with those on the pavement is the swing out of the nearside of the rear end of the trailer as it pivots through the corner. All of the above risks are associated with a single articulated vehicle trying to negotiate this bend, without considering the risk for conflict for traffic coming in the opposing direction.

4.118 Once opposing traffic is also considered, the potential for further fundamental problems arises. The Appellant identifies a maximum achievable inter-visibility around the corner of 24.8m. In order to achieve that inter-visibility, the outbound

vehicle would need to be at the mouth of its left turn. At this point, the swept path shows that there is insufficient space for an inbound vehicle to pass it. This is likely either to lead to conflict or for the need for one or other of the vehicles to reverse which could be very problematic in this village setting.

Preston Road/Higham Side Road Junction

4.119 This junction is also shown on the Appellant's drawing 172806/R/R09, at Insert B. An inbound vehicle would undertake a particularly sharp manoeuvre to negotiate this junction. The driver may be able to avoid crossing over into the opposing lane on Higham Side Road, but this presumes that the manoeuvre will be undertaken exactly as shown on the Appellant's swept path analysis. The manoeuvre would need to be undertaken slowly, putting the turning vehicle at substantial risk of conflict with traffic travelling in the opposing direction along Preston Road.

4.120 On the outbound journey, there is a dispute between the parties as to whether a vehicle utilising the passing place on Higham Side Road would then be able to position itself where it needed to be to undertake the left-hand turn at the junction without the need to reverse. The Appellant's swept path does not show the vehicle undertaking the manoeuvre from the passing place. TH considers that an articulated vehicle, which was expected to utilise this passing place, would need to reverse out of it before being able to turn left. On the outbound journey, the left turning vehicle crosses substantially into the opposing traffic lane putting it into conflict with all traffic coming from Inskip.

The Bend on Higham Side Road

4.121 This bend is shown on drawing 172806/R/R10. Two passing places are shown on the outbound side of the bend. However, TH considers that there are risks to VRUs associated with the use of this bend, which these passing places would not overcome. This is a part of a route, without footways, which provides access from Inskip to the pre-school, snack bar and other commercial activities on Higham Side Road. Pedestrians may well be walking directly in the face of oncoming traffic travelling around the bend. As shown in the photograph taken from the cab of an articulated vehicle in TH's Risk Assessment, pedestrians are very unlikely to be seen by the driver of the inbound vehicle. Here, the verge is cut away, giving no escape for pedestrians. Similarly, pedestrians may not appreciate the oncoming danger given the obstruction caused by the hedge. TH considers that by the time pedestrians are seen, a driver may struggle to avoid them on the apex of the bend, whilst any evasive action undertaken by the driver would put their vehicle into conflict with traffic coming in the opposite direction. This is a danger that TH explained would be only exacerbated by the physical properties of an articulated lorry. This means that the rear trailer will follow the shortest path, not necessarily the path of the cab, so endangering pedestrians and cyclists even if the driver seeks to avoid them.

The Remainder of Higham Side Road

4.122 This final section of road, before the access to the DHFC Inskip site, is known locally to be a fast and relatively straight stretch of road as depicted on drawing 172806/R/R10 and R11. The survey point on Higham Side Road (though further to the South) records 85th percentile speeds of 56 – 57mph and average OGV2 speeds of 36 - 40mph. The fastest speeds recorded anywhere on the three routes.

4.123 A series of passing places are proposed along this section of the route, which is

generally narrow and where two opposing HGVs are likely to need to give way. There are significant gaps between the passing places, for example 390m between 8 and 9, 240m between 9 and 10, 342m between 10 and 11 and 280m between 11 and where the Appellant says it is wide enough to accommodate two way working by HGVs. It must be in prospect that these passing places will be missed or not used, given the distances and that it will not be immediately obvious whether there is sufficient space up ahead to pass. TH explains his concerns about the potential for two opposing wing mirrors to clip one another at high speed, which in turn may present a serious risk for the OGV2 driver or another driver.

Summary of Red Route

4.124 In summary, the Red Route fails to provide safe and suitable access to the site for all users. The route's deficiencies combined with the change in the traffic associated with the development would result in real and unacceptable risks to the safety of people using the public highway, including vulnerable road users. The mitigation measures proposed are not adequate or satisfactory. Use of the route would not be in accordance with JLMWLP Policy DM2 or CS Policy CS5 and there would be an unacceptable impact on highway safety, contrary to paragraph 32 of the NPPF.

The Green Route

4.125 The GR is the only route which does not rely on the use of DHFCS Inskip. If DHFCS Inskip were unavailable for any period, all HGV development traffic would need to route via the GR. The GR is the route where the Appellant's surveys showed the heaviest use by cyclists – with a peak of 130 movements. Whilst the Appellant appears to accept that there is a need to only work one way between the site and Elswick, how this would be achieved, if the B & RRs were out of action, has not been made clear. Given the prospect of two way working on the section where the RR overlaps with the GR, it appears to be likely that inbound vehicles may need to wait in Elswick whilst outbound vehicles cleared Roseacre Road. How this would work in practice, and the risks associated with it simply do not appear to have been assessed by the Appellant.

A585(T)/Thistleton Road Junction

4.126 The Appellant's most recent swept path and proposed mitigation at this junction is shown on drawing 172806/AT/C01. This swept path was prepared in response to a letter from HE¹⁵⁰, the contents and implications of which are in dispute between RAG and the Appellant. RAG says quite simply that one needs to read the letter as a whole and to take into account all the observations of HE that are set out within the letter. The Appellant argues for a narrower reading of the letter where only the conditions at the end of it are relevant.

4.127 At paragraphs 8 and 9 of the letter, HE identifies a concern that HGVs associated with the development will exacerbate delays at the junction when HGVs try to turn right out of the junction. This would increase driver frustration on this extremely busy A-road and will lead to some vehicles not waiting for a gap, sufficient to enable them to complete their manoeuvre safely. At paragraphs 15 – 17 HE reviews the accident record and concludes that this supports the view that this presents a "*significant increase in risk to safety*". They "*strongly advise*" at paragraph

¹⁵⁰ DB appendix 6.

20 that consideration should be given to prohibiting HGV movements associated with the development from turning right out of the B5269 onto the A585(T).

4.128 Articulated vehicles are likely to be heavier and slower than other vehicles using the junction and may therefore find it harder to manoeuvre in and out of it. There is no assessment of the number of vehicles using the junction but the nearest survey point on Thistleton Road shows that the number of articulated vehicles is very unlikely to be high, as only 15 two-way movements were recorded at that location. Of course, one does not know what manoeuvre those 15 vehicles undertake at the junction.

4.129 The Appellant dismisses this advice not to permit right hand turns out of the junction as having been overtaken by the conditions at the end of the letter. However, this is to ignore the clear statement at paragraph 33 that the advice earlier in the letter should be read in conjunction with the conditions at the end of the letter. It also ignores the fact that the mitigation measures proposed do not address this first issue identified by HE. It is clear from the remainder of the letter that HE is not satisfied that a satisfactory scheme is "*deliverable*" as "*the level of preparatory work required has not been carried out*" by the Appellant.

4.130 TH shares HE's concern regarding the right turn out of the B5269 by outbound vehicles. He also identifies a significant concern for inbound vehicles turning right at the junction. TH considers that a vehicle waiting to turn right inbound would impede the northbound running lane, particularly as it manoeuvres the right turn due to rear end swing out. Whilst this is not shown in the Appellant's swept path, two points need to be made. Firstly, the swept path shows only one possible way of undertaking the manoeuvre and TH believes that there is every possibility that rear end swing-out will occur as demonstrated by his photographs in RAG/INQ/005. Secondly, the Appellant's swept path relies on the HGV having freedom to manoeuvre exactly as it needs to. This is often not possible due to congestion and the vehicle may not have the choice as to which line to take. Due to the narrowness of the running lane and the right hand turning lane on the A585(T), TH is concerned that any conflict between the rear end of the trailer and a vehicle in the running lane could be catastrophic. It demonstrates that the lane widths on the junction would need to be increased, particularly the right-hand northbound lane. However, the Appellant has not shown that this is achievable in practice.

Thistleton Road Junction

4.131 This junction is shown on the Appellant's drawing 172806/R/G02. TH uses this junction to illustrate the problems parked cars can create in relying on the paths set out by the Appellant. On page 15 of his risk assessment, in his Appendix 3, he shows the difficulty that parked vehicles can cause. The route shown to be taken by the inbound vehicle, on the Appellant's swept path analysis, involves significant encroachment into the opposing lane before undertaking the left-hand turn. This could not be achieved if a vehicle was parked as shown by TH.

The Double Bend at Elswick

4.132 This double bend is shown on the Appellant's drawing 172806/R/G03. No physical mitigation is proposed here, and two-way working would be in operation. It is the second of these bends on the inbound journey which is particularly concerning. As the swept path shows, the inbound vehicle would encroach onto the opposing carriageway on this bend putting it into conflict with all road users travelling in the opposite direction. Again, the give way points relied on by the Appellant are not the

same as the points at which the decision to give way would need to be made and they would rely on being able to see across third party land. On the outbound journey the vehicle moving right at the first bend is shown to encroach onto the pavement as it undertakes the manoeuvre.

4.133 The inbound vehicles would then have to manoeuvre through the village past the significant number of residential properties and parked cars. These parked cars narrow the usable width of the road and are likely to be particularly problematic for larger HGVs.

Right Hand Turn into Roseacre Road

4.134 At the point at which the R & GRs split, vehicles continuing on the GR inbound would need to turn right into Roseacre Road. This is shown on the Appellant's drawing 172806/R/G04. TH addresses this junction at page 34 of his Appendix 3. Whilst not shown in the path depicted by the Appellant, TH is concerned that the inbound vehicle's trailer would be likely to cut across the mouth of the junction as it enters Roseacre Road. Again, the Appellant's swept path makes no allowances, including for obstruction by parked cars, and again needs to be treated with caution.

4.135 On the outbound left hand turn the articulated lorry is required to give way to all traffic coming in either direction through Elswick as it would encroach substantially onto the opposing lane.

Roseacre Road

4.136 Roseacre Road is exceptionally narrow and is currently the least trafficked route along the proposed network, particularly by HGVs. Of the 45 HGVs recorded only 3 were within classes 7 – 10. The magnitude in terms of changes in composition of traffic is likely to be the greatest of any of the three routes. GK calculates the increase in articulated vehicles could be some 1666%.

4.137 The route inbound along Roseacre Road begins in Elswick village where parked cars remain prevalent on either side of the road. TH explains, at his page 44, that cars already park in such a way as to block the pavement, forcing VRUs onto the road. Barbara Richardson (BR)'s evidence highlights the rich tapestry of events which occur in connection with the numerous sports facilities, village hall, playground and sheltered housing along this section of the route, all of which are likely to attract movements by VRUs.

4.138 The use of the remainder of this narrow, unsuitable country lane relies upon a series of passing places, the limitations and severe safety concerns, in relation to these, have been discussed elsewhere¹⁵¹. As depicted on drawing 172806/R/G07 insert C for inbound vehicles there is also a significant left-hand bend on the approach to Roseacre village. Furthermore, VRUs use this stretch of road when moving between Elswick and Salwick House farm-shop and café, movements that the Appellant's survey did not record.

4.139 When one stands back for just a moment, even the suggestion to impose 16 new passing places along this section of the route, many of which would block private accesses when in use, speaks volumes about the safety and suitability of this narrow rural lane for the development traffic. The mitigation proposed simply does not come

¹⁵¹ Paras. 3.37, 3.38 and 4.64.

close to overcoming these issues.

Summary of Green Route

4.140 In summary, the Green Route fails to provide safe and suitable access to the site for all users. The route's deficiencies combined with the change in the traffic associated with the development would result in real and unacceptable risks to the safety of people using the public highway, including VRUs. The mitigation measures proposed are not adequate or satisfactory. Use of the route would not be in accordance with JLMWLP Policy DM2 or CS Policy CS5 and there would be an unacceptable impact on highway safety, contrary to paragraph 32 of the NPPF.

Convoys

4.141 The access arrangements at the PNR site could not be more different to those proposed at RW. PNR is located directly on the strategic road network, in marked contrast to the situation at RW. On the one hand the experience at PNR demonstrates that HGV traffic does not have to route down unsafe and unsuitable routes in order for fracking sites to gain permission. Moreover, the PNR site did not need to take account of the risks associated with the use of convoys to access this site. But more importantly, whilst it may have been deemed appropriate to use convoys at the PNR site that does not mean that it is appropriate to convoy at this site. Local residents, including Parish Cllr Nulty (3/1), explained the fear and intimidation such vehicle movements have caused on the strategic road network and that is only likely to be magnified on these rural roads through residential communities.

4.142 Indeed, the practicalities of such movements on these rural roads do not appear to have been considered or planned for by the Appellant. How would they manoeuvre the convoluted system of passing places or manage to get past parked cars within the villages? Would they need to stack along the routes? If so where? How could they safely get around the sharp bend at Inskip, particularly if there was traffic coming in the other direction? Could they safely use the right turns into and out of the A585(T)? There is a series of unanswered questions of which these are just a few. The description given by the Appellant in which a police car will arrive with blue lights flashing and the convoy will seek to reach the site as soon as possible is unlikely to give comfort to the resident whose car might be parked in the way or the pedestrian who is half way along Dagger Road when the police arrive.

4.143 Convoying at night along these unsuitable, narrow and unlit rural roads would provide more challenges, as well as impacting on the communities they would pass through. The Appellant has not adequately considered these additional risks. The condition permitting this on nine occasions during the development is simply not appropriate.

Economic Disbenefits and Community, Recreation and Amenity issues

4.144 In relation to recreational amenity, RAG has presented evidence to demonstrate the amenity value of the area, and to show that there is a strong local community and many visitors for whom the undisturbed and rural nature of the area is of particular value for walking, cycling and horse riding.

4.145 It has been shown through the written evidence of BR that the development will have significant impacts on this amenity value, both for local residents and for visitors, with the likelihood of consequential harm to businesses dependent on leisure and tourism.

4.146 The area is characterised by rural farmland interspersed with small villages, populated by a range of retired people, business professionals and young families. There is a strong and thriving community infrastructure, with a network of community facilities and activities which are often shared between the communities. The community takes great pride in its area and there is a strong sense of community spirit.

4.147 The area is also a rural tourism destination offering recreational pursuits such as walking, cycling, riding, canoeing, fishing, bird watching, game shooting, camping, and caravanning and for 'days out'. There are many small rural businesses such as farm shops, tea rooms and cafes, camping and caravanning sites, B&Bs, good quality eating establishments and public houses.

4.148 By reason of the traffic impacts addressed above, cyclists, walkers and horse riders will be dissuaded from coming to the area. They will no longer feel the roads are quiet, safe and picturesque. There will be consequential impacts on local businesses. There will be a significant adverse impact on the community, recreational and amenity value of the area.

4.149 The new proposals, which were not in existence when the SoS decided to re-open the inquiry, adversely affect more residential communities and raise further problems, which are material to the determination of the appeal than did the original proposals.

4.150 In presenting this evidence, RAG is conscious of the conclusion reached at DL48 in terms of economic disbenefits and DL107 in terms of community, recreation and amenity issues. However, those conclusions were reached when only one of the three routes was proposed to be used. The use of two additional routes represents a material change in circumstance. The Secretary of State is therefore respectfully invited to take these issues into consideration in reaching his decision as matters which weigh against the development.

Conclusion

4.151 RAG acknowledges that there is support in national policy for shale gas exploration in suitable locations. However, as the SoS himself concluded, it is not national policy to encourage shale gas exploration in unsuitable locations. Safety and sustainability are key determining considerations.

4.152 All three routes to the proposed site, both individually and collectively fail to provide safe and suitable access to the site for all users. There are inherent physical deficiencies with each of the routes that would have obvious implications for the safety of people using the highway and which have not been adequately addressed by the mitigation proposed.

4.153 These deficiencies, combined with the change in the traffic associated with the development, would result in real and unacceptable risks to the safety of people using the public highway, including, and perhaps especially, VRUs. Not only are people likely to be deterred from using the routes but there are very real risks of accidents involving motorists, cyclists, pedestrians and children.

4.154 The proposed development would have a serious and very significant adverse impact on the safety of people using the public highway. The demonstrable harm associated with that issue would not be eliminated or reduced to an acceptable level.

4.155 Use of the routes would not be in accordance with JLMWLP Policy DM2 or CS Policy CS5. The development would not be in accordance with the Development Plan taken as a whole. Safe and suitable access to the site for all people could not be achieved and the residual cumulative impacts of the development would be unacceptable. As the scheme would be contrary to para 109 of the NPPF, it is appropriate to refuse permission for the development on transport grounds. Moreover, the development would not represent sustainable development.

4.156 As was previously held, since the development would be neither safe nor sustainable, it would not have the support of the WMS. The national need for shale gas exploration cannot therefore be pleaded in support of the appeal. The need to ensure the safety of members of the public is paramount. All other material considerations are strongly outweighed by the harm that would result to highway safety.

4.157 For these reasons RAG opposes the proposal and invites the SoS to dismiss the appeal.

5. THE CASE FOR ELSWICK PARISH COUNCIL

5.1 Cllr Paul Hayhurst spoke to written evidence (ref 5/14), on behalf of EPC, referring to the RR & GR.

5.2 He pointed out that both routes were previously rejected as potential accesses to the site by Cuadrilla's former transport advisers because they considered them to be unsafe to accommodate Cuadrilla's traffic. He referred to the recent use of the B5269 by 19 HGVs based at an illegal depot at Gorst Farm off Lodge Lane, to the east of the village and to reports of accidents and near accidents from parishioners and involving those vehicles driving on the wrong side of the road to negotiate bends. Two statements from residents accompany his evidence. In his view, if accidents happen as a result of the 10m long HGVs visiting the Gorst Lane site, then the same is likely if the route is used by the larger 16.5m long vehicles visiting the Cuadrilla site.

5.3 A parish survey revealed that 99% of residents (from a 32% response) were concerned about the road safety implications of Cuadrilla's proposed vehicles. He referred to HGV's regularly being on the wrong side of the road when negotiating the five 90° bends between Thistleton and Inskip and to the substandard visibility at the High Street/West View (Grange Road) bends, where HGV's regularly cross the centre lines. Two photographs attached to his evidence demonstrate this.

5.4 He also referred to the highway dangers on Roseacre Road, adjacent to the village playground and the blind lane opposite that is used as a pedestrian access by many children. He is concerned about the stopping distance of 16.5m long HGVs (88feet) in the context of children running out of the blind access and across the road to the playground.

5.5 Visibility for outbound vehicles at the junction of Roseacre Road and High Street is also substandard because of the location of the shop on the south western corner. Parked cars and delivery vehicles, visiting the shop, add to the safety concerns at this junction but the Appellant has advanced no mitigation proposals to improve safety at this junction.

5.6 300 new houses have recently been approved in Elswick and Great Eccleston,

despite representations from HE about the highway safety ramifications at the A585(T)/Thistleton Road junction.

5.7 In 2016 Elswick was jointly judged the Best in Bloom Village in Britain and in 2017 it won the Champion of Champions award. Much of the floral display is alongside the R & G routes as they pass through the village. Increased usage of the road by HGVs, as a result of Gorst Farm, has already had safety ramifications for the volunteers who plant and maintain the beds. With additional HGVs the risks to their safety would undoubtedly be increased.

5.8 He also referred, in his capacity as a member of the Preston New Road Community Liason Group, to the continuous breach of conditions and the TMP by Cuadrilla at that site. Finally, he pointed out that the technology exists to drill diagonally for many miles and submitted a newspaper article about such a project on the edge of the North Yorkshire Moor National Park. He concluded by pointing out that fracking could occur from sites adjacent to the primary road network and in consequence did not need to be located in rural areas with highway networks that are unsuitable for heavy use by HGVs.

6. THE CASE FOR GREENHALGH WITH THISTLETON PARISH COUNCIL

6.1 Cllr Richard Nulty spoke to written evidence (ref 3/1), on behalf of GwTPC, with reference to all three routes.

6.2 He pointed out that the swept path analysis shows HGVs negotiating the junction at the western edge of Thistleton village on the wrong side of the road, threatening the facades of property on Elswick Road and pedestrians (including school children) at or walking to the bus shelter. The road only has a pavement on one side of the road and residents are forced to cross it to reach the post box and one of the bus stops.

6.3 There is concern that increased queues, due to large vehicles having to wait to turn right at the A585(T)/B5269 junction, will cause some vehicles, including HGVs, to use the southerly link to the A585(T) through the length of Thistleton Village, which is a conservation area.

6.4 In raising the congestion, at the A585(T)/B5269 junction, he referred to representations from HE about safety concerns. This followed a potential increased use of that junction by HGVs subsequent to the grant of planning permission for further residential development in Elswick and Great Eccleston. HE has asked the District Council to avoid any further developments that would increase traffic at the junction on account of the cumulative effects. The prospect of even more HGV traffic using this junction is cause for alarm.

6.5 He also spoke from personal experience about the difficulty of actually getting landowners to cut or remove high growing crops, trees or shrubs, as opposed to trimming hedges, from within visibility splays that include private rather than highway land. He pointed out that there were a number of such potential locations on all of the routes. He suggested that landowners can and do maintain hedges as high as 3.0 metres and that LCC can only take action to maintain sightlines across highway land to ensure that growth does not impede the road or footway.

6.6 There is a convex mirror sited opposite his driveway to improve visibility to the

right on the A585(T), where there is a slight bend. He stressed that such mirrors have a prescribed focal length of only 12/15 metres that they cannot be easily read from a moving vehicle, that the reflection is unreliable when wet and that they cause dazzle when dark. Furthermore, and with reference to the Inskip blind bend, in order to be used by HGVs, a mirror would require mounting at 3m and require regular cleaning and maintenance. In his opinion a mirror at the blind corner in Inskip would be inappropriate and probably dangerous.

6.7 He referred to the high levels of air pollution on the A585(T) either side of the M55 motorway. Pollution levels are the highest in the area and nationally are within the top 20%. Additional HGVs on the road, as a result of the Cuadrilla proposal, could only contribute towards making the high pollution levels worse.

6.8 Lastly, he discussed the experiences of lawful protest at PNR and the extensive disruption to the operations and the local community that has been caused. He pointed out the obvious differences between policing and managing such protest adjacent to a site on a four-lane highway link between two motorway junctions and on narrow roads with limited lay-over points. He suggested that there would be significant extra traffic as a result of the lawful protests, road closures, HGV route changes, convoys and mayhem.

7. THE CASE FOR INSKIP WITH SOWERBY PARISH COUNCIL

7.1 Cllr Carol Berry spoke to written evidence (ref 2/6), on behalf of IwSPC, with reference to all three routes.

7.2 With reference to the Derby Arms junction, she pointed out that contrary to DB's evidence, the area of gravel adjacent to Higham Side Road on the south-east side of the PH is not highway land and is frequently parked with cars. She referred to the recent granting of planning permission to develop a wedding centre and three retail units, additional to the existing PH and chip shop on the site. The area is already frequented by pedestrians, but their numbers are likely to increase.

7.3 She raised concerns about safety at the bend within the village. She pointed out that long articulated lorries would occupy the entire carriageway when manoeuvring around the corner. Vehicles travelling west would not see such a vehicle travelling east because of the poor visibility, which is obstructed by the house on the corner. She also referred to the 'swing out' of long articulated HGVs, which being at about a metre to the front and rear, could occupy the entire pavement. In her opinion someone on the pavement, whilst the vehicle is manoeuvring, could get hit by one of the trailer extremities. There is a playground on School Lane, which is used by the village children. Most of them use the narrow pavements leading to the bend to access School Lane. Such pavements should be a genuine safe place of refuge.

7.4 She also referred to unreported accidents, some of which can involve extensive damage. She described a recent one at the Derby Arms junction where no one was seriously injured.

7.5 Finally, she criticised the Appellant's evidence and cavalier attitude, pointing out that there had been no obvious changes to the BR and that it had offered 'knee jerk' reactions to the Inquiry to identified risks that should have been fully investigated and mitigated before the Inquiry began.

8. THE CASE FOR KIRKHAM TOWN COUNCIL

8.1 Cllr Miranda Cox spoke to written evidence (ref 3/3), on behalf of KTC, with reference to all three routes. She believes that the road safety issues are not separable from driver attitude, company expectations, ineffective regulation and a heavy reliance on the police.

8.2 She pointed out that in its assessment, the Appellant has not considered the traffic implications for the M55, A583 and A585, which surround Kirkham. In her view RW traffic would have to go around or through Kirkham and that it would impact on local residents and their environment, including persons who have to cross the A583. She believes that traffic using the BR would do so via the M55, A585 and A583 and described the development alongside the latter two and the highway conditions. She is concerned that the combined impact of PNR and RW traffic on these roads has not been assessed.

8.3 She believes that if the A585 is congested then traffic would divert through Wesham and Kirkham and that because of congestion around Preston town centre, it is unlikely that traffic would approach the BR at Clifton directly from the M6 via Preston.

8.4 In omitting the incidental roads, several safety issues have been ignored, including the serious accidents that occur on these primary roads. She referred to a number of crossing points that she already considers to be dangerous.

8.5 Finally, she referred to the likely use of convoys and the tendency for drivers to drive closer together in them, thereby reducing available stopping distances. She questioned the practicalities of managing passing places in such circumstances and challenged Cuadrilla's assertion that driver education combined with improvements to mitigation at the detailed design stage would ensure that the routes were safe. The predominant use of drivers who are not local is a further disadvantage. She also stressed the repeated re-writing of the TMP at PNR and Cuadrilla's under-estimation of vehicle movements to and from that site and the amount of rainfall experienced in Fylde.

9. THE CASE FOR MEDLAR WITH WESHAM TOWN COUNCIL

9.1 Cllr Linda Nulty spoke to written evidence (ref 3/2), on behalf of MwWTC, with reference to all three routes.

9.2 Her main concern is the likely increase in traffic on the A585 and the consequent further loss of amenity in the area. She described development in proximity to that road and the nature of the road, including the periodic congestion at 'pinch points'. She referred to the locations of pedestrian crossing facilities and the fact that many people have to cross the road elsewhere, pointing out that with more traffic and particularly more HGVs, the risk of accidents would inevitably increase.

9.3 Finally, she referred to air pollution and its ramifications for health, particularly from large diesel fuelled HGVs. The A585 south of the M55 already has the highest level of traffic pollution in Fylde.

10. THE CASE FOR NEWTON WITH CLIFTON PARISH COUNCIL

10.1 Cllr Peter Collins spoke to written evidence (ref 2/1), on behalf of NwCPC, with reference to the BR.

10.2 He referred to the recent approval of a planning application for the Preston Western Distributor Road (PWDR), including a new junction with the M55 and other infrastructure, to facilitate extensive residential development west of Preston. LCC had raised concerns about the highway safety impacts of construction traffic using routes through Clifton, including parts of the BR. This and other construction traffic generated by residential development in Clifton itself (more than 200 new homes are now proposed in the village) will undoubtedly add to the number of HGVs using the BR, as well as increased pedestrian movements thereon.

10.3 The approved route for PWDR construction traffic up to 7.5 tonnes is via Lodge Lane and Clifton Lane as far as the Windmill crossroads (on the southern section of the BR). All traffic could travel via Vicarage Lane and Church Lane, crossing the BR at the Windmill junction. However, that route was discounted by the Cuadrilla 2014 Transport Assessment because of poor visibility when exiting Church Lane, to the left. There is a history of accidents at this junction.

10.4 The Appellant has done no assessment of the cumulative impacts of construction traffic (including the Cuadrilla movements) on the Blue Route nor have there been any pedestrian surveys undertaken in the village. NPPF and NPPG require that a TA should be a thorough assessment of the transport implications of development. In the context of the major infrastructure and housing developments about to take place in the vicinity of Clifton, the Appellants TA is inadequate.

11. THE CASES FOR OTHER GROUPS

BAE Warton, Bicycle Users Group

11.1 Jon Howson (2/16) spoke on behalf of a group of commuter cyclists who work at BAE Warton (to the south of the A583) but live in various Fylde villages. They cycle on the appeal roads on a daily basis to and from work and meet weekly in the spring and summer for recreational rides in the area.

11.2 They consider that the proposed increased HGV traffic would make their journeys much more hazardous because the weight of the HGVs would lead to a further deterioration in the already poor road conditions, making cycling upon them much more hazardous. He specifically referred to the regular use of Roseacre Road by cyclists who visit the café between Elswick and Roseacre.

Dagger Road Equestrians

11.3 Vicki Cookson spoke on behalf of over 20 horse owners/riders who stable in the area and regularly use Dagger Road to exercise their horses. She emphasised the importance of Dagger Road to their hacking because of the absence of bridleways in that part of the area.

11.4 She pointed out that horses require exercise every day and not just at weekends, that HGVs are intimidating to horses and their riders but particularly to young riders. She referred to the likely diversion of traffic from the designated routes, in order to avoid the HGVs and the increased risks that that would pose for horse

riders on other roads in the area.

11.5 Her concerns extended to the removal of areas of grass verge to create vehicle passing places. Grass verges are meant to be a refuge for VRUs such as horse riders. Often equestrians ride in a group and they require a significant length of verge space to wait in safety whilst vehicles pass them.

11.6 Finally, she referred to some of the verges along Dagger Road being lower than the carriageway and the potential for vehicle tipping when HGVs are passing.

Elswick Equestrians

11.7 Annabelle Hassell (5/6), who owns and runs Elswick Equestrian Centre, spoke on behalf of the owners of the twenty horses that are kept at livery at the stables on Bonds Lane, Elswick.

11.8 She pointed out that whilst most riders preferred to ride on bridleways rather than on roads, the bridleway network in the area was limited. It is necessary to use parts of the rural road network to connect from one bridleway to another. In consequence horses are ridden on parts of the proposed access routes every day of the week, throughout the year.

11.9 She referred to the recent establishment of unauthorised parking of HGVs at Gorse Farm and said that there had been a number of incidents (near misses) involving horses and their riders with HGVs since the use began. She described two recent incidents involving HGVs and horses and also pointed out that a comparison between agricultural vehicle interaction with horses and HGV interaction with them was not valid because persons involved in agriculture are local and know the horse riders and their needs when overtaking. In comparison, HGV drivers tend not to be local and are not as familiar with the interaction between horses and vehicles.

Frack Free Fylde

11.10 Geza Tarjanyi (5/16) spoke on behalf of Frack Free Fylde. He referred to the continuous breaches of condition at PNR and the lack of enforcement by LCC, the Environment Agency and the Health and Safety Executive. He also referred to the cavalier attitude shown to lawful protestors by Cuadrilla and its suppliers. This has resulted in a number of incidents on the local highway network in connection with the legal protests, including damage to cars and personal injury to lawful protestors.

Friends of the Earth

11.11 Pollyanna Steiner (3/20) of the North-West Branch spoke on behalf of Friends of the Earth. She focussed on the unacceptable risks to highway safety, pointing out that the rural roads are vital to residents, walkers, cyclists and equestrians in going about their daily business and that up to 50 HGV's per day on these roads would impact upon highway safety.

11.12 She also referred to the uncertainty about flow-back rates and the admission by Cuadrilla that the combined volume of injected fracturing fluid and produced water flowing back to the surface could exceed the initial volumes of fluid injected¹⁵². This water would require transporting off site and the number of vehicles required to do

¹⁵² Preston new Road, Waste Management Plan, June 2017 (pgs. 32-33)

this could significantly exceed what has been assumed.

11.13 In her view the requirement for 39 passing places demonstrates the unsuitability of the road network to accommodate the development traffic. This would be contrary to NPPF para. 109 and LWMP CS Policy CS5 and SADM Policy DM2.

11.14 Despite being given additional time to amend its plans, Cuadrilla has not produced a satisfactory solution. It should also be noted that the PNR TMP has been revised eleven times already and that planning conditions have had to be revised to allow night time convoys.

Inskip Baptist Church

11.15 Neil Lewis spoke on behalf of the church, which is located adjacent to the RR. He referred to the numerous events that are held on the church's premises on weekdays including some that cater for children. Users of the church at these times would conflict with HGVs visiting the site via the RR.

11.16 He raised concerns about the nature of drivers on this rural road network. Not all will be HGV drivers, and many will not be local or familiar with the road network in the area. Most HGV drivers will not be working for Cuadrilla and will not have undergone its induction training.

11.17 He raised concerns about the safety risks associated with articulated lorries negotiating the bend in the centre of Inskip and at the Derby Arms junction, pointing out that in reality they would not follow the perfect manoeuvring demonstrated on the Appellant's diagrams. He also expressed concern about the numerous deviations from the TMP at PNR.

Java Café Bar Cyclists

11.18 Edward Cook (2/13) spoke on behalf of a group of 60 cyclists who meet at the Java Café Bar, Lytham and cycle the roads in the area on a thrice weekly basis.

11.19 He pointed out that increased traffic on the 'A' roads has encouraged cyclists to default onto the quieter 'B' roads, where traffic levels are substantially lower. He referred to the rise in cycling accidents nationally and suggested that the law of averages says that following an increase in HGV traffic, to the extent proposed, there would be an increase in injury accidents to cyclists and a greater risk of a fatality. He also referred to the likely further deterioration of the already poor road surfaces from increased use by heavy HGVs, and the increased risks that this would bring.

St Peters School Inskip, Board of Governors

11.20 Paul Houghton (2/5) spoke on behalf of the School's Governors, referring to the RR, which passes the school. They consider that the increase in large HGVs using the road will have an adverse impact on the safety of users of the school through a corresponding increase in the hazards posed by the road and the consequent increased risk of a child being injured or killed on the road.

11.21 There is limited parking on the school premises and parents thereby park on the road when dropping off children or picking them up. As result, other vehicles must pass whilst children and parents are in the road.

11.22 Although Cuadrilla have proposed an hour of exception at school start and end times, the school day starts with a breakfast club at 8:00AM and ends with after

school activities around 5:15 PM. Children are taken swimming by a coach, which loads in the road and children walk from the school to the church every week, crossing the road in order to do so. The safer cycling scheme teaches children how to cycle along Preston Road and the right start pedestrian training scheme also uses that road. The exception hours would not cover many of these activities.

11.23 The Governors are concerned about the unspecified waiting areas for the exemption periods and their impact upon the narrow roads. Mr Houghton also referred to the narrow pavement along Preston Road, which impacts upon the separation of pedestrians and vehicles. In consequence there is potential conflict between large HGVs and pedestrians at the School Lane corner.

Singleton Against a Fracked Environment (SAFE)

11.24 Chris Cannon and Karen Ditchfield (4/3&4) gave a joint presentation on behalf of Singleton Against a Fracked Environment, a group of Singleton residents; whilst David Rimmer(4/2) spoke independently under the group umbrella. Singleton is a village immediately to the west of the A585/B5269 (Fleetwood Road/Thistleton Road/Mile Road) staggered junction. Mile Road leads to Singleton.

11.25 They referred to the congestion at this junction during peak periods and the difficulty for vehicles wishing to exit the minor roads at that time, causing long waiting times (as much as 20 minutes). This reduces driver caution and there are real risks of collisions when drivers are turning right out of Thistleton Road. The increased usage of the junction with HGV's would compound the situation. HE already acknowledges the safety issue of vehicles pulling out in front of fast moving on-coming traffic. At 3.050m wide the centre lane is not sufficient to allow an HGV to turn safely, whilst vehicles pass it on either side at 50 m.p.h. Cyclists and pedestrians also cross this junction.

11.26 They disagree with the Appellant's interpretation of HE's response to the consultation and concur with HE's requirement for a Road Safety audit. They also referred to the high accident rate at staggered junctions.

11.27 David Rimmer holds a license to drive articulated HGVs and has had over fifty years of experience at driving such vehicles. He has considerable work experience in the field of highway safety, with particular reference to HGVs.

11.28 He assessed the risks at the A585(T)/B5269 junction, referring to the narrow northbound centre lane. He noted that HE had said that the Appellant's swept path analyses suggested that there was no margin for error when HGVs are turning right and that it was good practice to allow a safety margin of at least 0.3 metres. He reminded the Inquiry that HE had also pointed out that the construction standard for the A585(T) was only capable of supporting a maximum permitted weight of 40 tonnes, whereas vehicles can now be operated at 44 tonnes (including from the appeal site). This presents a real risk of damage to the carriageway.

11.29 He also referred to trailer swing out when a manoeuvre exceeding 90° is undertaken and suggested that right turning HGV trailers could swing out up to 0.75m into the fast running north bound lane on the A585(T). He concluded that this junction is already a high-risk area and totally unsafe for the vehicle movements detailed by Cuadrilla.

11.30 He then turned to the Hand and Dagger Junction, referring to the adverse camber and acute angle on the outbound right turn into Station Road, as well as on

the inbound tight left turn from Station Road into Treales Road. He again considers this to be a high-risk location because the road camber and radius of turn could combine with speed to distort the vehicle's equilibrium and cause wheel lift on the trailer and roll over in the case of both inbound and outbound vehicles.

Stanley Mews Roseacre

11.31 Chris Maguire (4/11) spoke on behalf of the 16 residents of Stanley Mews. He referred to the damage to utility meter points caused by vehicles having to stray onto the verge and the regular flooding of Roseacre Road in the village. This causes vehicles to stray out into the road. A public footpath leaves Roseacre Road at Stanley Mews and walkers and cyclists, as well as school children, congregate by a bench at the junction. Such a location is an inappropriate place for a passing place and would be dangerous.

11.32 He referred to cyclists using the local roads and the necessity for local residents to continually use them as a necessary means of access. The roads are regularly used by animals being moved between fields and there is often mud on the roads, which are not treated in winter.

11.33 Finally, he referred to protestors and the ease with which the roads could be blocked, causing safety risks as well as disturbance and inconvenience to local residents.

12. THE CASES FOR INDIVIDUALS

12.1 In addition to the representatives of the six Parish or Town Councils who made individual cases and the ten Local Organisations that were represented, a further fifty-seven individuals spoke at the Inquiry. Many of them spoke about similar matters and a number spoke about more than one issue. Rather than repeat the same point a number of times I have summarised their representations by issue, indicating in each case the references of the representations that contributed to the points being made. Some representations consequently appear under more than one heading.

Generic Issues

Baseline Conditions

2/4, 2/7, 2/8, 2/10, 3/10, 3/13, 3/14, 3/15, 3/19, 4/8, 4/10, 4/14, 5/10.

12.2 The narrow nature of some of these roads, with an absence of footpaths over long stretches and carriageways of insufficient width for HGVs to pass smaller vehicles, let alone another HGV, was referred to. Additionally, the condition of much of the selected network of roads, crumbling edges, poor state of repair with pot holes and areas of standing water was raised. These features made driving or cycling along the roads already difficult or problematic, particularly in winter and resulted in a tendency for vehicles to avoid the edge of the carriageway wherever possible.

12.3 The rutted nature of some of the verges and their intended purpose and use as a refuge by VRUs was also stressed. Further use by passing HGV's would worsen their condition to the detriment of all road users. Concern was expressed about the intended removal of significant areas of verge, and by consequence refuge space for VRUs, by the passing place/road widening proposals. The proposed absence of verge

refuge, at some of the blind bends, as a result of road widening and the inherent dangers of the resultant highway for VRUs was also stressed.

12.4 Visibility was referred to in the context of some high hedges, spring and summer growth and the consequence of cutting restrictions during the bird breeding season. The absence of gritting on these roads during the winter months often makes them treacherous for all road users.

HGV Traffic

2/8, 4/10, 5/5, 5/11.

12.5 A high proportion of the additional HGVs being introduced onto the routes are of the largest size (OGV2s), mainly articulated lorries of the longest length currently permissible on the roads. Such vehicles are rarely seen on these roads at the present time so that the proportionate increase in their numbers would be exponential. Their driving characteristics are dissimilar to the small number of smaller HGVs that currently use these roads and they will have a totally different impact on the use and safety of the roads to that experienced at present.

12.6 The Appellant's survey results on Lodge Lane were challenged by two participants, both considering them to be substantially higher than on a typical day. The additional HGVs generated by the Gorst Farm development, off Lodge Lane, from June 2017 were referred to.

Driver Behaviour

1/10, 3/9, 3/11, 3/15, 3/19, 3/21, 5/10.

12.7 It was noted that the Appellant did not directly employ the drivers who serviced the PNR site and that many of them are not regular or local. ML's confirmation that there could be many different drivers visiting the site over the life of the project was stressed. There is no evidence to suggest that the situation at Roseacre Wood would be any different to PNR and that every driver visiting this site would have previously undergone a comprehensive induction course. In such circumstances doubts were cast about the Appellant's ability to ensure that all drivers visiting the site would have been adequately trained on the characteristics of the designated routes that were being proposed. In addition, most drivers of vehicles on these roads will not have been trained at all, in any event, as they do not work for Cuadrilla.

12.8 Current poor behaviour, allegedly sometimes reckless, by drivers visiting PNR in the context of avoiding lawful protestors, whether individually or in convoys, was also referred to. It was suggested that such behaviour would likely be repeated at RW on roads of a very different character and with greater safety consequences.

Risk Assessment

1/2, 1/3, 2/10, 4/08

12.9 There was support for the risk assessment undertaken by TH and criticism of the Appellant's failure to adequately undertake one.

Accidents

2/7, 2/9, 2/10, 2/15, 3/5, 3/8, 3/14, 3/16, 3/18, 4/08, 4/10, 4/14, 4/16, 5/1, 5/2, 5/5, 5/7 5/8, 5/9, 5/12, 5/13.

12.10 A number of speakers referred to the fact that personal injury accidents are not always reported to the police and consequently do not appear in the official statistics. It was also pointed out that some non-injury accidents could very easily have been personal injury accidents. The frequency of damage to or gaps in the hedges was referred to as evidence of many non-injury accidents.

12.11 Reference was also made to numerous near misses on this network and occurrences when HGVs forced VRUs into hedges as they passed. Concern was also raised about the Appellant's treatment of wing mirrors in its swept path analysis and overtaking manoeuvres. This is an unacceptable risk that should not be taken.

12.12 The recent introduction of the unauthorised use and storage of HGVs at Gorst Farm (off Lodge Lane Elswick) was also referred to. Some representors considered that vehicles from that source were a likely contribution to the perceived recent increase in accidents in the Elswick area. A number of near misses experienced as a result of conflict with those vehicles were reported by Elswick residents.

12.13 The Appellant's reliance on an absence of fatal accidents and limited numbers of personal injury accidents was criticised, representors considering that the new highway dynamics that would result if the proposal was allowed, were not comparable with the existing situation, especially in the context of the number and type of HGV that would be on the network.

12.14 The contribution of hazards such as poorly maintained carriageway surfaces, crumbling edges and standing water, to the likelihood of accidents, was also referred to.

12.15 The overall reliability of the accident data was questioned. HE has quoted twelve personal injury accidents at the A585/B5269 junction since 2012¹⁵³.

Preston New Road Experience

1/8, 2/8, 3/9, 3/15, 3/21, 4/6, 4/8, 4/15.

12.16 The frequency and numeracy of the breaches to the TMP and planning conditions at PNR was referred to, along with the excellent transport accessibility of this site (two primary roads leading to a motorway). It was pointed out that the TMP now bore little resemblance to that considered by the SoS. The comparison with the access to the appeal site, along narrow country lanes, was made. The question that if Cuadrilla is unable to work within the parameters of the TMP and planning conditions at a site such as PNR without numerous breaches and changes that impact adversely upon the local community, what chance is there of it doing anything different in a location such as RW, was posed?

12.17 The extent of lawful protest at PNR was also raised and the inability of Cuadrilla and the police to deal with it without introducing traffic movements contrary to the TMP. Even at PNR lawful protest raised highway safety considerations. In a location such as RW where the access uses narrow roads without pavements and with blind bends, the risks of accidents to such personnel would be significantly increased, as it

¹⁵³ Response by Highways England to application 17/0536, Flyde Borough Council

would be to local inhabitants going about their daily business at the times of the protests.

Vulnerable Road Users

Cyclists

1/1, 1/6, 2/2, 2/4, 2/7, 2/8, 2/9, 3/8, 3/10, 3/14, 3/15, 3/18, 4/1, 4/14, 5/3, 5/4, 5/8.

12.18 The regular use of this route by local and tourist cyclists in significant numbers on a daily basis was stressed. The routes are used for journeys to work as well as for leisure purposes. The area is used for cycle races and training, with participants from a wide area, and by tourists in the summer, as well as by locals. Not all riders are experienced, and children cycle the roads outside of term time. Parts of the proposed routes are designated as a part of the National Cycle Network.

12.19 Many people stressed the increased risks to the safety of cyclists using the proposed routes following the introduction of significant numbers of OGV2s, a type of vehicle which is not commonly seen on these roads at the present time. They also referred to existing conflict with HGVs, including incidents of being forced onto the verges and into the hedges.

12.20 The poor condition of the edges of the road were referred to and the need for cyclists to ride closer to the centre of the roads to avoid carriageway damage and standing water. The likely increased deposition of mud onto the roads as a result of more HGVs using the grass verges was raised along with the danger of mud to cyclists and its contribution to skidding and cyclist injury. Lack of visibility for cyclists, particularly in late summer, because of hedge height at the numerous corners and bends along the routes, was also stressed as was the consequent deterioration of the road surfaces as a result of their use by more heavy traffic.

12.21 The appellant's proposed mitigation was considered to be inadequate to combat the increased risks to cyclists.

12.22 Whilst the Appellant's conclusions on the usage of the routes by cyclists were accepted, it was pointed out that the frequency of the survey was limited and along with the limited locations used it would reduce the overall robustness of the survey.

Equestrians

2/4, 2/5, 3/14, 3/15.

12.23 Horses have to be exercised on a daily basis and there are around 100 stables in the area. The area has a limited network of bridleways and parts of the proposed routes have to be used to connect from one bridleway to another. Regardless of the results of the Appellant's survey, there are consequently horse riders using parts of these routes on a daily basis to exercise their animals.

12.24 The limited extent and frequency of the Appellant's survey was criticised, it being pointed out that the likely use of stretches of road to connect with bridleways did not appear to have been explored before the survey locations were chosen.

12.25 The large number of passing places and the consequent reduction in the extent

of verges, which are used by horse riders as a refuge, particularly when animals are in distress, was viewed with concern. Incidents with existing HGV traffic were referred to as was the fear of future incidents on these roads if convoys were allowed in the same way as at PNR.

Walkers

1/4, 1/5, 1/6, 2/2, 2/4, 2/7, 2/8, 2/9, 3/8, 3/10, 3/11, 3/14, 3/16, 4/1, 4/10, 4/15, 5/9.

12.26 The small number of pedestrians using the affected roads, particularly those close to the villages, revealed by the Appellant's survey and its interpretation, was not considered to be an accurate interpretation of pedestrian usage of the roads within this area. The limited locations of the Appellant's survey points, the limited time extent of some of the surveys and the absence of any analysis of pedestrian movement in any of the villages, despite identified road safety hazards within some of them, was criticised extensively. It was pointed out that 15 PRow interact with these roads and that in a number of instances it is necessary to walk along the roads to connect from one PRow to another. The Appellant's survey locations do not appear to have taken account of these considerations.

12.27 The narrow pavements that are often of insufficient width for two pushchairs or disabled vehicles to pass, was stressed as was their general state of disrepair and the fact that during the summer their usable widths are reduced by lateral hedge growth. In the absence of pavements, it was stressed that the grass verges in much of this area have to suffice for pavements.

12.28 The participants stressed the importance of the verges as a pedestrian refuge from traffic. There would be a need for increased use of the facility, as a result of increased traffic using the roads. However, at the same time a substantial reduction in verge area was being proposed to facilitate the construction of passing places of sufficient length to accommodate the longest HGVs. On Roseacre Road as much as a third of the existing verge could be lost to extended hard surfacing. John Bailie (1/9) had calculated that 40% of the part of Roseacre Road (GR), 37% of the part of Preston Road west of Inskip (RR), and 56% of the part of Salwick Road (BR) containing passing places, would be widened. He referred to the proportionate reduction in the available refuge for VRUs along these stretches. Increased use of the roads and verges by passing HGVs would destroy more of the verge, making them less suitable as a place of refuge for VRUs, as well as being to the detriment of pedestrians trying to walk on them.

The Proposed Routes

A585(T)/B5269 Junction

1/9, 5/7, 5/12.

12.29 Reference was made to the representations by HE to Fylde Borough Council about residential development applications in the area. It is concerned about the potential additional accident risk from right turning traffic generated by the construction of new housing in an already poor accident environment¹⁵⁴. In referring

¹⁵⁴ Response by Highways England to application 17/0536, Fylde Borough Council

to right turning traffic and the limited gaps in the flow, it specifically pointed out that it cannot be argued that an increase in traffic using the junction will not increase the risk of accidents occurring at the junction.

12.30 Accidents and near misses at the junction as well as between it and Elswick were also referred to. Additionally, the tracking of articulated HGVs through the junction in the context of the narrow lanes was also raised.

Dagger Road

1/5, 1/6, 4/4, 4/12

12.31 Residents of property close to and users of accesses from the road, as well as others, pointed out that the proposed traffic lighted scheme would be unsafe because such users would not know whether or not the lights were in use. Vehicles entering the system from Moss Lane or from other land and property would not know whether or not there were HGV's within the system travelling towards them. More fundamentally an HGV, having passed a green light would not be expecting another vehicle to be travelling towards it.

12.32 They also referred to visibility issues caused by the bends and hedges and the narrow carriageway and limited verge along this stretch of road, as well as the extensive rutting on the parts with verges. Equestrians using the system could become stranded in the narrow stretches with no available refuge.

12.33 The road is regularly used by agricultural contracting vehicles from a farm that is accessed from within the proposed traffic lighted system. Some of the vehicles are 2.95m wide and because of the restricted width of the highway, in places are unable to pass HGVs without reversing. Livestock is regularly moved between fields and farmyards, including milking cows.

DHFCS Inskip

1/5, 3/13, 3/15, 3/19.

12.34 Two issues were raised. The first concerns the agreement between the Appellant and MOD, which is not before the Inquiry. The Appellant has said that in unspecified circumstances the MOD could prevent it from using the route. In such circumstances the B & RRs would be inoperable. Whilst conditions prevent the use of one of the routes for no more than five consecutive days, reference was made to breaches of condition at PNR because of operational requirements. There is scepticism as to whether if operations were at a critical stage and the use of DHFCS Inskip became unavailable, whether operations would in fact stop or whether alternative routing that breached the conditions would be put in place, as has occurred at PNR.

12.35 DHFCS Inskip is a former war time airfield. The route proposed to be used by the Appellant has not been maintained for several years and requires repair and improvement to withstand the weight of the proposed vehicles that would use it. The Appellant has made no assessment of this and the proposed vehicle generation of the project does not include the HGVs that will inevitably need to visit this site to bring material to improve the route across the site.

A583/A585 south of the M55

2/3, 3/4.

12.36 The safety aspects of the right turn from Lodge Lane into the A583, also raised by TH were aired. Additionally, the poor accident record along this part of the primary network was raised and the impact a large number of OGV2s would have on traffic flows and congestion. During the holiday season congestion already leads to vehicles using the roads through Kirkham and Wesham in preference to a congested A583. The further diversion of traffic, including OGV2s is a concern.

The Communities**Clifton**

2/2, 3/4, 3/11, 3/22

12.37 The park on the western side of Clifton Lane is regularly used by village children, many of whom have to cross the BR to access it. There is no pedestrian crossing. Other parts of the BR within Clifton Parish only have a narrow single sided footpath or no footpath at all, causing pedestrians to have to walk in the road or to cross it to access a footpath.

Elswick

3/8, 3/14, 3/16, 3/22, 5/1, 5/2, 5/4, 5/5, 5/12

12.38 The substandard visibility at the High Street/Lodge Lane /Roseacre Road/junction was referred to. The regular parking of vehicles by shop patrons and delivery vehicles, on both High Street and Roseacre Road, further impedes visibility and impairs the manoeuvring of HGVs around a junction where children regularly congregate.

12.39 Substandard visibility at the double bend at the western end of the village was also raised, along with the inability for HGVs to pass on the bend and the regular need for them to reverse.

12.40 The perceived increase in HGV traffic as a result of the illegal parking of HGVs at Gorst Farm, Lodge Lane was raised; along with a number of near-miss accidents associated with them. Further HGVs are likely to be lawfully using the village's roads, in the near future, as a result of the granting of planning permission for significant new residential development in the area.

12.41 Highway safety concerns were expressed about access to the playground on Roseacre Road, because of parked cars and the blind access, opposite the Village Hall, from the west.

12.42 The narrow pavements (between 0.48m and 1.2m) were referred to and the risks to highway safety as a result of people having to step into the road to pass one another. This is already a particular problem for disabled residents and those with young children.

Inskip

1/7, 2/4, 3/4, 3/8, 3/9, 3/16, 3/18, 3/22.

12.43 There was concern about large articulated HGVs negotiating the two bends within the village and those at Crossmoor and along Higham Side Road, to the detriment of other road users. Participants referred to incidents involving HGVs at these corners. A number of instances of accesses with inadequate visibility and where vehicles have to reverse onto the B5269 in front of oncoming traffic were also referred to.

12.44 In the centre of the village is a blind corner where forward visibility is obstructed by a building, such that vehicles have to decide to proceed before they can completely see the road ahead. Vehicles on the wrong side of the road, negotiating the corner, have to reverse if they meet an opposing vehicle, with consequent risks of rear shunts. There is a narrow footpath on the outside of the corner only, its width being partly obstructed by a thorn hedge. Wheelchairs and pushchairs can only pass by one of them using the road. School Lane leads from the apex of the junction to the village playground and playing fields. Consequently, numerous children walk past this junction, particularly during the school holidays. A number of near miss incidents at this corner were recited by local residents. There is widespread concern for the safety of unaccompanied children in a situation where up to 50 OGV2s could be passing daily, with trailers overhanging the narrow pavement as they negotiate the corner. The Appellant's suggested mirror, as a means of improving visibility at this corner, was viewed with scepticism and not supported.

12.45 Further concern was expressed about large articulated vehicles having to negotiate the Derby Arms junction on the wrong side of the road, with a similar need to reverse if there is an on-coming vehicle. The need for large vehicles to use the whole carriageway to negotiate the bends at Crossmoor and along Higham Side Road was also seen as a danger to other road users. Reference was made to the narrow pavements east of the village and their absence along Higham Side Road where there is a business complex that contains a pre-school nursery and a café. Air cadets and other groups meet regularly in buildings at the complex. Persons walk and cycle from Inskip to the site and have to negotiate the footpath-less bends where there is limited verge.

12.46 The village has narrow footpaths that are not continuous on both sides such that persons have to cross the road to continue on a pavement. Although the restricted hours of operation along the RR to avoid Cuadrilla HGVs passing the school before and after school time was welcomed it was pointed out that parents would be negotiating the village pavements, after school start time and before the end of the school day and that some of them are accompanied by younger children. Children from the school regularly cross Preston Road en-route to Inskip Church during the school day and would be in potential conflict with Cuadrilla HGVs. The limited car parking at Inskip School was referred to along with the recently commenced residential development close-by. The consequence is a large number of cars, supplemented by HGVs, parked on the B5269. OGV2s would have to negotiate around these unless they were removed.

Roseacre

2/7, 3/10, 3/12, 3/14, 3/16, 3/22, 4/14

12.47 Reference was made to the regular parking of vehicles outside of properties within the village and the potential conflict with Cuadrilla HGVs negotiating the narrow road through the village, much of which is without pavement. In consequence pedestrians and school children walking to or from the bus pick-up point or waiting for buses would also be in conflict with vehicles serving the appeal site.

12.48 The stocking of large numbers of cattle by local farmers was referred to and the continual movement of the animals from one pasture to another along Roseacre Road. Such movements would be in conflict with vehicles travelling along that road to the appeal site. These vehicles would also be in conflict with the feed and straw vehicles and slurry tankers that regularly visit the local farms, as well as the large agricultural machinery used by local farmers and moved up and down Roseacre Road.

12.49 The 16 passing places along Roseacre Road within a distance of 2.5km were referred to and the likelihood of an increase in vehicular speeds once they are established and vehicles use the soft verges to pass to a lesser extent. People from the village regularly walk dogs along Roseacre Road. Saswick Hall Café was referred to and its regular use by cyclists and walkers. It was pointed out that the significant reduction in highway verge to construct passing places along Roseacre Road would remove large areas of potential refuge for VRUs.

12.50 John Iredale (3/22) pointed out that the proposed site of passing place 4, outside of the Beeches and where he lives, was not highway land and would not be made available as a passing place. The use of entrances and accesses within Roseacre village as proposed passing places and the practicalities of these proposals in the context of parked cars and vehicular access to properties was also raised, as was the use of one of them as a bus pick up point for school children.

Environmental concerns

2/11, 3/8, 3/11, 3/22, 4/7, 4/8.

12.51 Residents raised the adverse effects the use of the roads by large numbers of OGV2s would have on their quality of life, in particular as a result of intimidation and fear. In this context a number of people referred to the fact that fracking could take place up to a distance of 10km from a bore hole. In such circumstances there was no need or justification for boreholes to be sited in environmentally sensitive locations, such as the appeal site and where accessibility is poor. The need to substantially disrupt the lives of local communities need not occur. The boreholes could be located adjacent to the primary road network and the gas below Roseacre Wood still fracked.

Resource Implications

1/10, 3/15.

12.52 The resource implications for the County and local Councils was raised in the context of ensuring that visibility and the free flow of traffic is maintained where legally possible in the context of hedges adjacent to highway land and vehicles parking legally on the highway. In the context of the latter, traffic Regulation orders may be necessary. There would also be an added cost to clear mud off the roads and to maintain them to a safe standard during the winter months.

12.53 The potential cost to the police ensuring that lawful protest along these narrow roads does not prevent vehicles from accessing the appeal site, whilst at the same time maintaining the safety of lawful protestors, would also be significant. In far more favourable conditions the policing costs at PNR have been over £7million to date.

Other matters.

1/9, 4/12, 4/13, 4/15, 5/4, 5/10, 5/15

12.54 The analysis of vehicles generated by the development and presented to the previous Inquiry has been shown through the experience at PNR to be an underestimation. This, according to the Appellant, is largely due to an unexplained under estimation in the number of water tankers needed to date. Several other anomalies in the Appellant's tables forecasting HGV generation were also identified. The conclusion was that there could be a much higher vehicle requirement for the development than is forecast, particularly if surface water is not disposed of on-site for a significant period or not at all or the flow-back rates prove to be an under-estimate. The Appellant's ability to obtain a permit to dispose of surface water on-site is far from certain. The ramifications of the periodic flooding of the site and the inability of the local brook to take water during this period do not appear to have been considered.

12.55 An analysis of vehicle size requirements, which shows that there would be a significant step change in the number of OGV2s using the network and a fundamental change in the road safety risks was submitted.

12.56 Four of the five locations within Fylde that have the poorest levels of air quality, would be affected by increased pollution from the HGVs visiting the site, making an unacceptable situation worse.

12.57 Evidence concerning the use of the canal, adjacent to the Hand and Dagger Junction by canoe clubs was submitted. It was pointed out that other than on Ribble Canoe Club nights (Tuesdays after 18:00) the private steps to the canal behind the PH could not be used. At other times club members and other canoeists at all times have to use the steps adjacent to Station Road. The general public, accessing the canal for all activities, have to use these steps at all times. That is why there are regularly cars (often with trailers) parked along Station Road. Canoes are heavy and unwieldy. Consequently, they are unloaded as close to the steps as is practicable and because of the narrowness of the pavement at this point, when being unloaded or loaded, canoes, that can be 17 feet long will obstruct most of the south-bound carriageway. Ribble Canoe Club alone has over 200 members.

12.58 I was reminded of the Freight Transport Association's recommended dimensions for safe road design. Its recommend 7.3m width for two-way safe HGV access, reduces to an absolute minimum of 6.0m on roads with very light traffic flows. The proposed flows on parts of this network cannot be considered to be "very light flows". Additionally, much of the network has a carriageway width that is less than 6.0m.

12.59 School children are picked up and dropped off by bus at various points along the proposed routes. Whilst the Appellant has recognised the dangers to children outside of Inskip School and has offered to restrict the use of the RR to prevent pre and after school conflict with school children, no similar offer has been made with

regard to the GR & BR despite children waiting for buses at various points along these routes or walking along roads, often without pavements, to and from bus stops.

12.60 ML's evidence on flow-back reduction was challenged. He was accused by Mike Hill (5/15) an industry employee of being over-optimistic. He pointed out that US geological circumstances and experience were not necessarily applicable to the UK and reminded the Inquiry that a 70% flow-back rate was achieved at the Preese Hall site. It was suggested that the Appellant should have planned for a worst-case scenario. The extent of flow-back would significantly impact on traffic generation during that phase of the operation. Once flow-back begins it cannot be controlled and the liquid will have to be tankered off site, within a short period of time, regardless of whether the TMP and conditions have allowed for the volumes being achieved.

13. WRITTEN REPRESENTATIONS

13.1 Following the publication of the Appellant's Transport Consultation report and Environmental Statement Traffic Addendum [CDs 6.1 & 6.2], in November 2017, there was a general consultation about the proposed mitigation and new route strategy. 420 letters of representation were received from groups and individuals up until the close of the Inquiry. Almost all are against the proposal, for many of the same reasons that are summarised under the appearances by Interested Persons in the preceding section or were raised by LCC and RAG.

13.2 Fifteen responses that were received from organisations are also contained in CD 6. With the exception of Fylde Borough Council, Campaign to Protect Rural England (CPRE) and Lancashire Constabulary, all appeared at the Inquiry and their more comprehensive presentations are summarised above.

13.3 Fylde Borough Council [6.12] expressed safety concerns about the overall nature of the three routes and the proposed traffic lights on Dagger Road. It also pointed out that HE had expressed concern regarding the operation of the A585(T)/B5269 in a road safety context and in connection with proposals for residential development at Elswick.

13.4 CPRE considered the Appellant's consideration of accidents to be trivial and referred to the breaches to conditions and the TMP at PNR. It also raised concerns about the flow-back estimation and the ramifications for traffic generation if it was an under-estimation. It referred to the large number of passing places and the likelihood of them and driver frustration resulting in increased speeds along the roads. It pointed out that the identified swept paths were theoretical and that not all drivers would choose the ideal line. It also raised a number of environmental issues.

13.5 Lancashire Constabulary, whilst stressing that if planning permission is granted it would endeavour to put in place an appropriate policing operation and that the likely occurrence of unlawful protest is not a factor that should be taken into account in determining the appeal, pointed out that the presence of protestors in narrow country lanes with no pavements had safety implications. The potential impact on safety and the local community ought properly to be reflected in any TMP. It also raised a number of operational concerns, requesting that they be dealt with through the planning conditions.

14. CONDITIONS AND OBLIGATIONS

Conditions A comprehensive set of planning conditions was discussed and agreed at the last Inquiry. They are to be found in Appendix C of the previous Inspector's report [CD 4.2]. The Highway Conditions (7-12) were discussed further at and outside of this Inquiry and revised in the context of the Appellant's proposed mitigation and its introduction of the two new routes.

14.2 The revised schedule now contains 19 highway conditions as opposed to 11 previously. With minor reservations, the Appellant and LCC agree all of the submitted conditions except proposed new condition 12b1. RAG has fundamental reservations about six of them and made submissions thereon. The position at the close of the Inquiry is outlined in [CD12.1].

14.3 With minor modifications that primarily relate to the new situation (three routes as opposed to two), former conditions 7A (limitation on the number of daily two way HGV movements to 50), 7B (non-use of Wharles), 7C (traffic monitoring scheme), 9A (formerly 9) (deposition of mud and dust on the highway), (traffic management plan) and 12B (formerly 12) (survey of highway conditions) are retained and generally agreed.

14.4 New conditions 8C (non-use of any route for more than five consecutive days), 9B (construction of passing places), 12A (the Dagger Road traffic light scheme), 12D (out of hours use in 9 emergencies), 12E (A585(T)/B5269 junction), 12F (application of the provisions of S59 of the Highways Act 1980 to the scheme) and 12G (formerly 11) (the submission of a construction method statement) are also agreed.

14.5 LCC propose a new condition (12B1) concerning the implementation of a scheme of highway signage, which although supported by RAG is not supported by the Appellant. RAG has proposed a new condition 7A1 (use of all roads in one direction only) but it is not supported by either of the other parties. RAG has serious reservations about conditions 8A (formerly 8) (access improvements, including the road at DHFCS Inskip), 8B (formerly 8A) (use of DHFCS Inskip), 8D (prevention of Cuadrilla vehicles from passing, other than on the combined G & RRs), 10 (TMP) and 12C (formerly 18) (hours of working).

14.6 Former condition 7D (reporting of exceedance of the daily movement cap) could be covered by the TMP and has been deleted.

14.7 Non-highway conditions 3 (working programme) and 47 (community liaison group) have also been modified to reflect the new situation. The latter is agreed but RAG's proposed changes to the working programme condition were rejected by both other parties.

14.8 There is also provision by condition to allow the Appellant to bring vehicles to the site outside of the prescribed hours on nine separate occasions. This, it is claimed is necessary for operational flexibility, particularly in the context of protest but it is not agreed by RAG.

Traffic Management Plan

14.9 In accordance with draft condition 10 a revised draft TMP also accompanies the

appeal. The principle terms concern:

- a. The continued availability of all three routes other than at EFT;
 - b. The availability of DHFCS Inskip throughout the use of the B & RRs;
 - c. Specified hours of use that exclude Saturdays and evenings;
 - d. A daily maximum of 50 two-way vehicles;
 - e. Driver induction and training;
- and
- f. The use of a driver App to give drivers full information about the layout of the roads and the location of the passing places.

Obligation

14.10 An agreement pursuant to S106 of the Town and Country Planning Act 1990 was submitted to the previous Inquiry [CD 10.4 to that Inquiry]. The agreement related to matters concerning dust and noise monitoring. A Deed of Unilateral Undertaking under the above Act was signed by the Appellant and the owners of the land and submitted by the Appellant to this Inquiry. It concerns highway matters and in particular requires the Appellant, prior to the commencement of any development:

- a. To enter into an Agreement under Section 278 of the Highways Act 1980 with LCC, to undertake and complete Highway Improvement Works, as identified in the Baseline Highway Condition Survey, to the reasonable satisfaction of LCC but up to a maximum total cost of £100,000 (inclusive of VAT);
 - b. To monitor the height and width of hedgerows along the HGV routes and to report any obstruction or interference with the vision of vehicular traffic to LCC;
 - c. To reimburse LCC's reasonable and proper costs of issuing notices and carrying out any works required by the notices;
- and
- d. To reimburse the landowner of any hedge, killed or damaged by the construction of the passing places, the reasonable and proper costs of replanting any such hedgerow but up to a maximum total liability of £20,000.

14.11 I return to the above matters, especially the disagreements about the proposed conditions in my conclusions.

15. CONCLUSIONS

In this section, numbers in parentheses () indicate source paragraphs in this report or source documents.

Introduction

15.1 In his decision letter, the SoS agreed with the previous Inspector *"that whilst the actual duration of the highest HGV flows would be relatively short, the volume and percentage increases in HGV traffic that would arise at those times would be high"*. He also agreed *"that this, combined with the deficiencies of the route, would be likely to result in real and unacceptable risk to the safety of people using the public highway, including vulnerable road users"*. He agreed *"that in the absence of satisfactory mitigation measures, it cannot be concluded that the preferred route (the BR) would represent a safe and sustainable approach"*. He further agreed *"that the proposed development would have a serious and very significant adverse impact on the safety of people using the public highway"* (CD 4.2 para. 97).

15.2 However, the SoS noted *"that his conclusions largely rested on the failure of the Appellant to provide adequate evidence that they had properly considered and addressed the safety issues and the failure of the Appellant to demonstrate that the proposed mitigation is workable in practice"*. The SoS therefore gave *"the Appellant and other parties the opportunity to provide additional evidence on this point"* (CD 4.2 para. 98).

15.3 As well as giving further consideration to the safety issues, the Appellant has reconsidered the proposed mitigation, including the practicalities of its implementation. Additionally, it has also reconsidered the background highway considerations and more fundamentally introduced two other routes (GR & RR), parts of which overlap, as alternatives to the original proposal (BR) but to be used in tandem with it. According to the Appellant, the availability of additional routes would provide *"flexibility for the operation to deal with protestor action or any other difficulties on one of the routes"* (2.5 & 2.7).

Baseline Conditions

15.4 Before turning to the three routes there are a number of changes to the baseline conditions that need to be considered.

15.5 The Appellant carried out a series of surveys during the summer of 2017 at fixed points along the three routes and on some other roads. These replace the information from the traffic counts and other user assessments undertaken for and used at the last Inquiry. Whilst the authenticity of the information is generally agreed, the interpretation of the information and the weight to be placed upon it is generally not agreed. Counts of traffic were carried out at fixed points over two weeks, apart from at Lodge Lane and Preston Road, which for unexplained reasons were only surveyed for a period of one week. The vulnerable user survey was carried out over four weekdays apart from the aforementioned when it was only for one day (2.6, 2.10, 3.13, 3.14, 4.17, 4.18 & 4.35).

15.6 The Appellant also updated the estimated traffic flows to and from the proposal, in the light of the evidence of such flows from the operation of the PNR site, as had

occurred to date (2.6c, 2.22 & 4.44).

15.7 It also carried out topographical surveys on all parts of the route with less than 6m highway width. Some of this, along with visibility distances at passing places was revisited and agreed with LCC during the course of the Inquiry (1.33g, 2.6b, CE/INQ/015 & 020).

Survey Deficiencies

15.8 RAG told the Inquiry that whilst it did not dispute the accuracy of the data in the locations and on the days on which the surveys were undertaken, it was concerned about the extrapolation of the evidence from the data to current movements and speeds at junctions and the recording of non-cycling vulnerable road users (4.17 & 4.18).

15.9 It argued that one cannot extrapolate evidence of current movements and speeds at junctions from the data, as all of the locations were on links and not at junctions. The NPPG specifically expects that data on current flows will be gathered "*on links and at junctions*". Notwithstanding that, if speeds are taken from the links rather than the junctions, then any turning movements are likely to be at slower speeds than the Appellant recorded, whilst any vehicles that are not turning may be travelling faster if the through road conditions allow. I also agree that it is impossible to determine from the data available what the number and nature of the turning movements at the junctions actually is (4.18).

15.10 There is disagreement between the Appellant and RAG as to the validity of the survey in as much as it relates to non-cycling vulnerable users. The survey did not measure pedestrian movements in any of the villages. The Appellant made the point that this was because all of the villages had footpaths on one or both sides of the roads. This may be so but given that for the most part footpaths are on one side or the other and pedestrians have to cross the road within all of the villages, either because of this or to visit a facility, it would have been useful to know the extent to which this is occurring when assessing the risks. In a number of places, the footways are narrow and it is difficult for persons with pushchairs or in wheelchairs to negotiate or to pass without one of them using the road. Larger vehicles, such as the articulated OGV2s visiting the appeal site, are more likely to infringe the road space that VRUs use, particularly when passing other vehicles, than are smaller vehicles (2.13d & e, 2.14, 2.96, 4.18, 4.25, 4.27, 4.30 & 12.22).

15.11 The Appellant correctly points out that the survey was primarily designed to pick up pedestrians walking outside of the areas with footways and where they are undoubtedly more vulnerable to traffic on the roads. However, it is very likely that there is a relationship between pedestrian movements and the distribution of dwellings in the area. The more people that live in a particular location, the more likely are pedestrians to be walking on the roads or footpaths in that area. In such circumstances and given that one of the survey's primary functions was to establish the potential for VRUs to be in conflict with HGVs visiting the appeal site, it is surprising that the survey did not measure pedestrian movements on the affected roads without pavements close to the two newly introduced large villages, Elswick and Inskip (2.14, 4.27 & 12.26).

15.12 As RAG pointed out, the Appellant's survey methodology failed to identify where

the significant local pedestrian trip generators are, to identify the desire lines for vulnerable road users and to undertake an assessment as to where vulnerable road users would be most likely to be along the routes. In this context, the survey location parameters do not appear to have considered the local footpath and bridleway networks and the sections of highway that need to be used to connect various lengths of off-road footpath/bridleway, particularly south of Elswick and Inskip (2.97, 4.25, 4.28, 4.29 & 12.24).

15.13 Despite nodal attractions, such as the snack bar and day care centre south of Inskip or the café between Elswick and Roseacre, there was no survey on Higham Side Road south of Inskip until a significant distance beyond the commercial complex or on Roseacre Road between Elswick and Roseacre. Indeed, the only location surveyed on Roseacre Road was close to the appeal site, north of Wharles, a community not directly affected by the revised proposals. In consequence there is no basis upon which to judge the impact that the use of the most critical parts of Roseacre and Higham Side Roads, in the context of the GR & RR, would have on pedestrians because the Inquiry does not know to what extent pedestrians are using these (4.25 & 4.121).

15.14 Additionally, the footpaths between Elswick and Inskip along Lodge Lane and Preston Road are not continuous. Where they exist they are mostly only on one side of the road and they cross over at various points. They are also narrow and in a poor state of repair in a number of places. Given that they connect two of the largest centres of population in the area, parts of them could be comparatively well used by pedestrians. Unfortunately, the only survey information available was recorded on one day only (4.27, 4.138 & 12.27).

15.15 The Appellant was critical of RAG for not highlighting its criticisms of the survey locations beforehand. It pointed out that RAG had not done its own survey and that the Highway Authority had not challenged the methodology or conclusions of its surveys. However, the letter of 9 June 2017 about the proposed survey, from the Appellant to RAG, is at best ambiguous if its intention was to seek RAG's observations on its proposed survey methodology and locations. It says that it "has appointed Vectos as its new highway experts" and that they "have (already) commissioned a suite of further traffic and highway surveys". Whilst also saying that the surveys will be undertaken "in accordance with industry standards", nowhere does it invite comments or criticisms on the proposed survey locations or the methodology. The email of 5 September again merely informs RAG that the Appellant is about to undertake further traffic surveys. There is no specific request for comment or observation thereon (2.9, 2.10, 4.31 & 4.32).

15.16 A similar debate took place at the last Inquiry, with the Appellant criticising RAG for not undertaking its own survey and RAG pointing out that it did not have the resources to commission its own survey and that a survey undertaken by residents would be viewed with scepticism. Whilst it did its own survey this time, by a questionnaire to residents, predictably the Appellant pointed out that as it provided no evidence as to the numbers of people walking along the various stretches of road, it should therefore be given very little weight. Whilst this might be so, as the previous Inspector said "*I do not believe that RAG should be criticised for not having undertaken that particular task (roadside surveys), nor should it distract from the deficiencies of the Appellant's own survey evidence*" (12.443). The Appellant's point could be directed against its own VRUs survey, given its failure to survey the critical

parts of Higham Side Road and Roseacre Road and the very limited period it chose to survey Lodge Lane and Preston Road (2.10, 4.3 & 4.34).

Traffic Considerations

15.17 The traffic survey came to similar conclusions as at the previous Inquiry. At the present time overall traffic flows on any of the routes are not unduly high. The maximum on a 12-hour weekday was 2644 on Elswick High Street, the minimum 510 on Dagger Road. The HGV composition on all of the routes was around 10%, with the highest again on Elswick High Street (289) and the lowest on Roseacre Road (48). It is also agreed that “there are relatively few OGV2s currently travelling along these routes” and less than half of these are Class 7-10 vehicles i.e. the large articulated vehicles that many of the trips to the appeal site would be made in. Apart from Clifton Lane, where the flows are compounded by vehicles visiting the Westinghouse site, and Elswick High Street/ Lodge Lane where numbers have recently been inflated by the establishment of the unauthorised HGV depot at Gorst Farm, numbers are everywhere below 10 on a 12-hour weekday. They are below 5 on Roseacre Road and Dagger Road (2.13, 2.81, 4.20, 11.9, 12.5 & 12.40).

15.18 The overall HGV traffic levels that are predicted to occur by the Appellant, as a result of the proposal, are accepted in general terms by LCC. RAG has reservations in the context of improvements to the carriageways at DHFCS Inskip and the removal of water from the site. Overall it considers that flows would be higher than the Appellant predicts. A number of third parties share the same concerns. In the context of experience at PNR overall numbers have been revised upwards by more than 20%. Nevertheless, for the majority of days, the number of two-way flows would still be less than 24, although even that number is of concern to LCC and RAG. As RAG points out, the Cuadrilla vehicles would, on the whole, be heavier and up to twice as long as the typical HGV currently using this network. Their impact on the road surface and their manoeuvrability would be entirely different (3.15, 3.16, 4.21, 4.41, 4.44, 12.35 & 12.54).

15.19 The Appellant has agreed to cap the daily numbers at 50 for the duration of the project and agrees that the assessment of the impact on the network should be based on that number, noting that at most there would only be more than 24 on 15% of the days on the current forecasts. However, there would be 275 such days or the equivalent of 55 weeks, without any increase in vehicles as a result of the works at DHFCS Inskip or an underestimate in the number of vehicles required to handle the flow-back. These considerations are discussed further below (4.39, 12.60, 15.22 & 15.23).

15.20 LCC undertook a comparison of the number of days when peak traffic generation of 40-50 two-way HGVs per day was predicted. The previous Inquiry and the decision proceeded on the basis of 12 weeks. The position is now 27 weeks, unless the Appellant obtains a permit to treat surface water on the site, when it would be 18 weeks. However, although a draft appeared to have been agreed by the Environment Agency at the time this Inquiry closed and more than a year into the life of the PNR project, there was still not an EP to allow rainwater to be treated on that site and it was consequently all being transported off-site for treatment and by HGVs. If the experience was to be repeated at RW, then the peak traffic generation period would likely be more than 18 weeks (3.17, 4.42 & 12.54).

15.21 The Appellant also points out, that on the days when the highest levels of HGVs would be generated, the majority of vehicles would be tippers and not articulated vehicles. RAG responded that there are very few of this size or type of vehicle on the network at the moment. As RAG notes, these vehicles are substantially heavier than the rigid vans that make up much of the existing HGV traffic. Like the larger articulated vehicles, the increased weight reduces their manoeuvrability, increases their stopping distances and increases the downward pressure that they apply to the road surface or the verge. RAG also pointed out that 6 axle articulated vehicles would be the dominant vehicle visiting the appeal site (70% in its estimation) (2.22b, 4.21 & 4.41).

15.22 The issue of vehicle generation as a result of the flow-back phase was raised by third parties. The Appellant maintains that it has over-estimated, others disagree. At the present time there is no evidence from PNR as to what it will be because the project has not reached that stage. However, as the Appellant points out, vehicle generation at the fracturing stage is currently predicted to be less than 24 per day; so that if there is more flow-back to be removed from the site, than predicted, there would be significant scope for additional vehicle movements before the 50 movements per day cap was reached. An onsite backlog is therefore unlikely. Nevertheless, and whilst that may be so, if the flow-back calculations are too low then there would most likely be even more days when the number of movements would be above 24 and in a worst-case scenario it could be a significant number of additional days (2.23, 2.24, 11.12 & 12.60).

15.23 Cross examination from RAG revealed that the Appellant's forecasts do not include vehicle movements resulting from the need to improve the access across DHFCS Inskip. The Appellant, in closing, stated that the works would take about 3-4 days and generate a total of no more than 6 HGVs. However, RAG pointed out that DB had said in his proof that the improvement of the 326m access road through the site could involve 326 vehicles (2.25 & 4.45).

15.24 There are no survey or reconstruction proposals before the Inquiry to base any estimate on. I drove and/or walked along this route from Higham Side Road to Roseacre Road on my third accompanied site visit. It is nearly 1.5 Km in length and the road is in various states of disrepair. Remedial or new work is likely to be required on more than 326m. If this track is to be upgraded to be capable of withstanding use by HGVs, some of which would weigh as much as 17.5 tonnes, for a number of years, then in my judgement it would take substantially longer than 3-4 days to undertake the work and/or involve far more than 6 HGVs. The evidence suggests to me that DB's estimate on behalf of the Appellant, is the more likely and is to be preferred but even this could be an under-estimate (2.25, 4.46, 12.35 & SV).

15.25 I was also referred to a number of residential development proposals in or adjacent to Clifton, Elswick and Inskip which in their own right are going to add additional numbers of HGVs onto this network in the short term. For the Appellant, DB estimated the impact of the residential construction sites to be at a level of about 40 two-way HGV movements per day. He pointed out that despite representations from HE, in the context of the A585(T)/B5269 junction, no mitigation was required (3.24, 5.6, 10.2, 10.4, 12.29 & 13.3).

15.26 Whilst that may be so, it does not have a bearing on this appeal in that context. As LCC points out, given the locations of the residential development sites, the

impacts of the additional traffic are only likely to be experienced on Lodge Lane in Clifton, where development traffic from the Preston Western Extension will also add to future HGV movements and on the B5269 between Inskip and the A585(T). The further increase in HGVs, along this route in particular, can only add to the safety concerns that surround the use of the RR by the Appellant's vehicles (3.24 & 10.3).

15.27 LCC's finding that the proposal would bring about significant increases in the volume and type of HGVs using the affected roads on weekdays, is supported by the evidence base. It would also bring about a substantial proportionate increase in the number of OGV2 vehicles using the roads (3.13, 4.42 & 12.55).

Vulnerable Road Users

15.28 The quantum of cyclists is not in dispute. There is significant use on most of the links on an average weekday (2.13c, 3.42, 4.35 & 12.18).

15.29 Where the surveys were undertaken they show the quantum of pedestrian use to be no more than modest. Other than on the BR south of the Hand and Dagger and close to Clifton, the two-way pedestrian flows were everywhere less than 10 per twelve-hour day. The previous Inspector found that the Appellant's survey evidence underestimated the use of the BR by pedestrians. For the areas that were surveyed I cannot come to that conclusion. However, in my judgement the failure to survey the critical parts of the GR & RR, close to the main centres of population at Elswick and Inskip, from the perspective of pedestrian usage, is a serious weakness in the Appellant's case. There simply is not the information to come to an informed conclusion on pedestrian usage and the safety ramifications of it along the northern parts of Higham Side Road (RR) and along Roseacre Road between Elswick and Roseacre (GR). Furthermore, because of the limited time frame, those undertaken at Lodge Lane (Elswick) and Preston Road (Inskip) are of limited value and should be interpreted cautiously (2.13e, 4.26 & 12.26).

15.30 For the same reasons, the nature and levels of pedestrian usage within the villages, particularly along High Street, Lodge Lane and Roseacre Road within Elswick and Preston Road within Inskip are impossible to predict. Additionally, there could be other locations where roads are used by equestrians and pedestrians to connect from one public footpath to another that were neither identified nor surveyed. In consequence a cautious approach should be taken when assessing equestrian and pedestrian safety other than in the vicinity of the survey points but excluding Lodge Lane and Preston Road where the survey was limited to one day only (2.1, 2.14, 4.29, 4.30, 4.37, 11.4 & 11.8).

15.31 The survey only recorded two equestrians on the entire network (on Preston Road). Given the extent of stables (723) within the area and the relatively small extent of bridleways, even the Appellant found that surprising. However, it could be that horses are hacked early in the morning or in the evening in summer when the survey was undertaken and were consequently missed. That would not necessarily be the case in winter (2.13e, 4.36, 11.3, 11.7 & 12.23).

15.32 The third-party equestrian witnesses pointed out that bridleways were used in preference to the roads where possible but there was not a complete off-road network in this area. Some stretches of the proposed routes have to be used if equestrians are to link between one bridleway and another. The Appellant's fixed-point survey

does not appear to have taken any account of this. The pedestrian survey deficiencies discussed above would also apply to equestrian users. LCC nevertheless felt that on the network, taken as a whole, equestrian use was no more than modest and following my numerous site visits I tend to agree with that opinion in so far as there is available data to make a judgement (4.28, 11.3, 11.8 & 12.24).

Safety Concerns

15.33 The Appellant has considered personal injury accidents (PIAs) over the last five years. That revealed an average of three PIAs pa across the part of the network that Cuadrilla would use, with only one serious accident during that period. Once again, the Appellant considered this to be a highly material consideration and that significant weight should be given to it. Whilst agreeing that although there would be a large percentage increases in HGV numbers, it pointed out that the absolute numbers and therefore the interaction would remain low. In the worst case there would only be an average of six additional HGVs per hour and for most of the time less than half of this number. It also argued that the dynamics of the route would not be materially changed. In its view *"significant weight can be put on the absence of relevant accidents"* (2.15- 2.21).

15.34 However, it should be noted that the Appellant's statistics failed to include accidents at the A585(T)/B5269 junction, which its vehicles would use. A number of witnesses referred to the poor accident record at this junction. HE identified 12 personal injury accidents during the last five years (4.127, 12.15, 12.29 & 13.3).

15.35 Both LCC and RAG referred to the findings of the previous Inspector who whilst accepting the previous accident record as a relevant consideration felt that *"it does not automatically follow that because accidents had not happened in the past, they would not be likely to happen in the future, given the new scenario that would arise as a result of the proposed development. The judgement to be made must also reflect the change that would occur in the levels and nature of traffic using the route"*. They also referred to the SoS's endorsement of these findings in saying *"it does not automatically follow that because accidents have not happened in the past, they would not be likely to happen in the future, given the new scenario that would arise as a result of the proposed development"*. Third parties also referred to unreported accidents and near misses. In the context of the likely significant increase in the number of HGV's visiting the appeal site over that considered by the last Inquiry and despite the introduction of two new routes, there would still be a major change in the nature of traffic using the routes and in particular the numbers of OGV2s. I agree with LCC's conclusion that *"the persistence of a continuing good accident record is far from assured given the change of dynamics"* (3.20- 3.23, 4.57, 12.10, 12.11 & 12.13).

15.36 The Appellant primarily addresses the risks on the basis of two HGV's meeting at a narrow point on the roads. It rightly points out that this does not cause a severe highway safety impact because at all the key locations the speed data shows HGVs moving at relatively low speeds. If they meet there is unlikely to be a PIA. It claims that at all locations the forward visibility is such that there is sufficient space for the two vehicles to stop and then to manoeuvre past each other, by using the verge if absolutely necessary. Ignoring one of the wing mirrors two HGVs could pass in a width of 5.5 metres (2.28- 2.30).

15.37 RAG, LCC and others are more concerned about the fact that the imposition of passing places (nearly 40 of them) reduces the available verge (by as much as 20% overall in one estimation) and the sanctuary that it affords VRUs. John Bailie (1/9) estimates that the loss is more than 30% on the affected parts of each of the routes. RAG also point out that road widening to improve width would lead to vehicles passing at higher speeds, whilst at the same time reducing or removing the safety net for VRUs (3.37, 4.62, 11.13 & 12.28).

15.38 LCC referred to paragraph 2.7.9 of TD27/05 in The Design Manual for Roads and Bridges, which says that verges should be sufficiently level and free from hazards to permit their occasional use by Non-Motorised Users in the absence of dedicated facilities. The Appellant pointed out that the reference quoted was from standards designed to guide the construction of all-purpose trunk roads. Whilst this may be so, I share LCC's opinion that its recognition of the need for and use of verges by VRUs is undoubtedly of general application. Whether on the side of trunk roads or the minor rural roads without footpaths that are intended to serve the RW site, VRUs need somewhere to go if the highway that they are on is about to be occupied by other vehicles (3.38).

15.39 LCC also pointed out that its primary safety concern, in addition to VRUs, related to rear shunts into stationary or reversing vehicles by vehicles other than OVG2s. Head on collisions involving frustrated drivers behind slow moving HGVs overtaking and colliding with approaching vehicles were a further concern, together with accidents as a result of a far greater use of the verges by heavy HGVs and their consequent deterioration. It also raised the issue of added mud being deposited on roads through the use of verges by HGVs. In response the Appellant offered to arrange for the roads to be swept in such circumstances through the TMP (2.30, 3.36 & 12.3).

15.40 RAG considered the use of verges by larger HGVs to be a safety concern for those vehicles. The recent introduction of revised air suspension requirements for articulated vehicles has resulted in them only having single wheels at the end of each axle, compared to the previously usual two. RAG points out that the Appellant's evidence relies on the nearside tyre of such a vehicle riding on the extremity of the road in some instances to facilitate passing. The weight is now distributed onto one wheel at either side of each axle rather than two. Such vehicles are more likely to damage the edge of the carriageway than smaller twin wheeled vehicles, which are not as heavy and distribute the weight more widely. If they stray onto the verge, then they would create deeper ruts because the weight is now transferred through one wheel rather than two. There comes a point, particularly where the verge is soft, when the ruts become so deep that the axle scrapes the carriageway and wheels detach due to bolt sheering. This or the uneven distribution of weight that occurs when one side of the vehicle is running in a deep rut is a cause of vehicle roll over, which clearly has significant safety implications. Whilst the example quoted by RAG was not from the Fylde area, that does not negate the concept of the potential for it to happen here in the new road and traffic circumstances that would prevail if the appeal were to be allowed (2.50 & 4.22-4.24) .

15.41 Edward Cooke (2/13), Jon Howson (2/16) and others pointed out, from personal experience cycling along them, that these roads are not in the best of condition, at the present time and there are many examples of frayed carriageway edges as a result of vehicles running along them. Such carriageway edges, along with

potholes, which can only get worse thorough increased use by heavy vehicles, are a clear hazard for cyclists. The Appellant considered most cyclists on the network would be experienced and familiar with the route. LCC does not agree with this assumption, referring to the use of the roads by inexperienced cyclists, many of them children, during the school holidays (11.2, 1.19, 12.2, 12.3, 12.14, 12.18 & 12.20).

15.42 The Appellant also points to the development and use of a Route App to ensure that drivers have full information on the layout of the routes. However, as this idea only emerged during the Inquiry and has yet to go beyond the investigation stage, its successful implementation cannot be relied upon at this stage. Additionally, even if the development and introduction of a driver route App and the education programme are successful, such assistance would not be available to the overwhelming majority of drivers who would be using these roads but driving vehicles not associated with the appeal site (2.102f, 2.106 & 3.35).

15.43 LCC and others also cast doubts on the likely effectiveness of the driver education programme, as did the previous Inspector. In response Cuadrilla have expanded the driver education proposals. Nevertheless, as a number of independent witnesses, in addition to LCC, have pointed out, Cuadrilla do not directly employ the drivers. Although it does employ contractors who use regular drivers, not all drivers who visit PNR are regular and there is no evidence to suggest that RW would be any different. Consequently, the practicality of delivering driver education to a disparate and fluctuating group of drivers, not within the direct control of the Appellant, cannot be guaranteed. Overall the evidence suggests that LCC's view that "reliance on HGV driver behaviour reinforced through a programme of driver education should be viewed with caution" is a reasonable assessment (3.50 & 12.7).

15.44 Condition 12B requires a pre-commencement condition survey of the highway and the Appellant has offered to repair any parts that create a safety risk. It also intends to monitor the route so that if damage occurs then it can be repaired. It submitted a Unilateral Undertaking to the Inquiry that among other matters obliged it to carry out "highway improvement work" defined as reasonably necessary to repair any existing verge or carriageway damage in order to protect the amenity of VRUs. If effectively implemented this could go a long way to making the roads safer for cyclists and other VRUs in the new situation. However, the expenditure is capped at £100,000. LCC is content with the obligation but notes that the extent to which that sum would fund the necessary repairs cannot be anything other than conjectural at the present time (2.27, 2.30 & 3.44).

15.45 Notwithstanding the point that these rural roads were not designed to accommodate the appeal traffic safely, RAG considers it foolhardy to think that the sum offered could overcome all of the shortcomings along the routes and transform these unsuitable roads into safe routes. The Baseline Highway Condition Survey has yet to be undertaken. Nevertheless, the site visits confirmed that the extent of carriageway disrepair, particularly along its edges, as well as verge rutting is, as described by a number of witnesses, extensive. In my judgement a capped sum of £100,000 would be inadequate to rectify these safety hazards (4.55 & SV).

Visibility

15.46 The crux of the safety argument revolves around visibility both forward, in the context of the passing places but also around bends, where some HGVs need to use

both carriageways in order to successfully manoeuvre through them. It is also critical when approaching and manoeuvring through junctions. In many places visibility is affected by the nature and height of the hedges that bound the highway land and the critical height, to achieve desirable visibility, varies with the heights of vehicles as well as the road profile and its relationship with adjacent land, upon which the hedges are located (3.28 & 12.4).

15.47 There was clearly a discussion at the previous Inquiry into the extent of visibility required to make the passing places scheme workable. Surprisingly, the arguments were repeated at this Inquiry. The previous Inspector (IR 12.470) clearly agreed with the submissions of LCC that it was not simply a case of the need for inter-visibility at the passing points themselves. For them to work effectively there needs to be sufficient forward visibility at a decision point, before any particular passing point, to see an approaching vehicle, which has proceeded beyond the next succeeding passing point and then for it to be able to stop in time and park in the passing place that it is approaching (3.34).

15.48 The minimum desired forward visibility at passing places is now agreed between the Appellant and LCC. An HGV driver should be able to see the passing place beyond the one that s/he is approaching in sufficient time to think and manoeuvre to stop in the approaching passing place. If that cannot occur and a vehicle runs past to meet an oncoming vehicle then the likelihood is that one vehicle will need to reverse or one or both will need to use the verge (2,36, 3.33 & 3,34).

15.49 It is now agreed that the visibility at five of the proposed passing places does not meet this requirement. I discuss the risks further when considering the individual routes. However, given the clear guidance provided by the previous inspector I find this surprising. Allied to this, the SoS specifically gave the Appellant the opportunity to properly consider and address the road safety issues presented by the proposal and to demonstrate that the proposed mitigation is workable in practice. In this context the Appellant's inability to provide passing places that conform to the guidance previously given and that are workable in practice is a fundamental weakness in the Appellant's case (2.37-2.39, 3.34, 3.35 & 4.64).

15.50 Wider visibility is also important to enable HGVs to be able to see VRUs and all other approaching vehicles, including vehicles other than HGVs and the reverse. This is particularly the case where HGVs are on the wrong side of the road, around bends or manoeuvring at junctions or when other vehicles are overtaking them. Such visibility is often dependent upon views across hedgerows and fields and even through woods or other vegetation that are not within highway land. The Appellant places great store on HGV cabs being higher than seating in other vehicles so that their drivers have a wider panoramic view when looking forward. In principle, that is correct. However, the available visibility depends upon hedges being appropriately cut and there being no other obstructions impairing the visibility (2.31, 3.35 & 4.65).

15.51 The Appellant points out that at the present time the hedgerows are all appropriately maintained to allow HGV visibility across them. The site visits suggested that that is not strictly correct. Very few hedges had not been maintained over the previous winter but some of these were in sensitive locations, such as on parts of the Lodge Lane bends. Furthermore, hedges were clearly being maintained at heights varying from under a metre to over three metres. The ability to see over a given height also varies with the road profile as it rises and falls across this undulating

landscape and the degree to which the road is recessed into the ground. Whilst in late spring HGV drivers could see over most hedgerows, my site visit that involved a trip in a typical OGV2 along the routes, confirmed that there were some parts of the routes where the hedges were too high for them to see over even then. Other trips in a car revealed that there were a number of locations where the hedges were being maintained at a height that prevented some cars and light vans from being able to see around corners over third party land (2.31, 3.28, 3.29 & SV).

15.52 Whilst agreeing that hedges are generally low at present, LCC pointed out that it cannot be assumed that landowners will continue to maintain a similar maintenance regime in the future. The Appellant suggested that if hedges were allowed to grow to a height that was obstructing the views of HGV drivers then LCC has the power to take action under S154 of the Highway Act 1980 (2.32, 2.33 & 3.29).

15.53 However, LCC pointed out that a quick resolution to any obstruction to visibility is far from guaranteed, even when using these powers. In response the Appellant included a requirement in the Unilateral Undertaking for it to monitor and report on the height and width of the hedgerows that appear to becoming a problem. It also agreed to reimburse any cost incurred by LCC in using its powers to cut hedges itself. However, despite this LCC still considers the resolution of visibility issues, as a result of high hedges, would still be time consuming. RAG agreed with this, referring to the legal process and its inherent delays. Whilst I accept that a need to resort to legal action would be the exception rather than the rule, the process would not necessarily be a quick one. Overall and despite the Appellant's suggested mitigation, I agree with the previous Inspector that, a *"reliance on visibility being taken over third-party land is a further cumulative risk factor which should not be ignored"* (3.29, 4.66 & 4.67).

15.54 There was also discussion as to the extent that LCC or the Appellant could ensure that hedges are appropriately cut. RAG pointed out that neither the Appellant or LCC has control over third party land and that if the land required for visibility became unkempt, visibility could be severely restricted in a number of critical locations. GwTPC also cast doubt on the extent that LCC could require hedges to be cut using the 1980 Highway Act and referred to LCC historically having to purchase triangular areas of land at bends and to erect see through fences in order to achieve satisfactory visibility at those bends. There are a number of examples of this along Lodge Lane and elsewhere (4.68 & 6.5).

15.55 Section 154 of the 1980 Highway Act says *"Where a hedge, tree or shrub overhangs a highway or any other road or footpath to which the public has access so as to endanger or obstruct the passage of vehicles or pedestrians, or obstructs or interferes with the view of drivers of vehicles or the light from a public lamp, or overhangs a highway so as to endanger or obstruct the passage of horse-riders, a competent authority may, by notice either to the owner of the hedge, tree or shrub or to the occupier of the land on which it is growing, require him within 14 days from the date of service of the notice so to lop or cut it as to remove the cause of the danger, obstruction or interference"*. Whilst the interpretation of the legislation is clearly a matter of law, it is by no means certain that this power extends beyond the power to require vegetation that is overhanging a public highway, road or footpath to be removed. In April there were extensive lengths of hedge and other vegetation along these routes that are maintained and were not overhanging the public highway, but they were nevertheless of a height that prevented most vehicles from being able to see over them, including HGVs at a number of points. By the end of summer, the

extent of such barriers to visibility will have increased somewhat (SV).

15.56 Mrs Stringman (3/19) raised the restrictions that limit hedge cutting during the bird breeding season and pointed out that as a consequence hedges inevitably grow higher. During the late spring and early summer some hedges can grow by as much as a metre so that hedges that most drivers can see over in early spring may not be in such a condition by late summer. Some hedges could become a visibility hazard to all drivers during the bird nesting season. The Appellant pointed out that LCC could still require a hedge to be cut back during the bird breeding season but under the supervision of an ecologist. However, that presupposes that the ecologist does not find any live birds' nests (2.34 & 12.4).

15.57 No mention was made by the Appellant of drivers of smaller vehicles. However, in my view, the likelihood is that severe injury accidents are more likely to happen through a smaller vehicle colliding with an HGV than through two HGVs colliding. For visibility outside of the settlements to become a non-issue, a number of kilometres of hedgerows would need to be reduced in height to an extent that they were unable to grow during the spring and summer to heights that would restrict visibility from small cars or vans around the numerous bends and at the junctions along these routes. There was no evidence before the Inquiry to suggest that that was achievable, even with the use of LCC's powers under the 1980 Highways Act.

Passing Places

15.58 LCC was concerned about flooding on the route and the implications for it at seven of the proposed passing places. The Appellant considered this to be a matter of detailed design. Following site investigations, it was agreed that a number of the issues were as a result of blocked gullies and drains and that sufficient gradient could be achieved on each of the passing places to overcome any potential flooding issue. The Appellant agreed to unblock the blocked gullies and drains as a part of a revised TMP, whilst LCC agreed to leave the details of passing place construction, to avoid potential flooding, until the detailed design stage on the understanding that permeable asphalt was not to be used (2.42-2.46 & 3.33).

15.59 LCC also raised concerns about hedgerow damage on narrow stretches of road where there was limited verge space within which to construct passing places. The Appellant pointed out that potential hedgerow damage was a product of the method of construction. It suggested that where necessary it would be prepared to hand dig around root systems and it has agreed to pay the full costs of the appropriate S.278 works. It also agreed under the S106 Agreement to establish a fund for hedgerow replacement costs to be used where necessary. That fund is however capped at £20,000 including VAT. There is no evidence demonstrating that such a sum would be sufficient (2.47).

Risk Assessment

15.60 As at the previous Inquiry, the Appellant criticised RAG's risk assessment and suggested that it should be given very little if any weight, despite the previous Inspector's conclusions on the matter. In its opinion it was totally flawed because it did not take speed and accident data as well as the proposed mitigation into account. It also pointed out that in rural areas it was normal for HGVs to cross into the opposite carriageway to pass cars or traverse around junctions and bends (2.48, 2.49 & 4.79).

15.61 In response RAG emphasised that DB, on behalf of the Appellant, had been in general agreement with the first part of its assessment. This characterises the various hazards along the routes associated with the operation of OGV2 traffic through bends etc. and the impact on other road users. What he had disagreed with was the adoption of a simple set of industry accepted criteria to assess the potential severity of a prospective accident at the identified hazards (4.79 & 12.9).

15.62 Whilst I do not see what there is to object to in the adoption of industry accepted criteria, I do share the Appellant's concerns about the absence of objective considerations of speed and accidents. It is also difficult to see where the new level of OGV2 traffic flow is considered. However, whilst the analysis could have been improved if based on the situation that would present itself to the OGV2s i.e. after the Appellant's proposed mitigation had been implemented, TH did attempt to rectify this through his commentary on the likely impact of the mitigation when presenting his evidence in chief and each hazard was examined individually as a part of the overall risk assessment. Additionally, as the previous Inspector commented, TH's Risk Assessments *"do identify inherent physical deficiencies' in the preferred route that would have obvious implications for highway safety"* (4.16, 4.80 & 4.81).

Other Highway considerations

Traffic Management Plan

15.63 The Appellant has revised the draft TMP. A condition would require one being in place and agreed with LCC before the development commences. The Appellant views this as LCC having complete control over the traffic management position. Whilst LCC accepts its contents and concurs that it has been developed as far as is practicable at this point in time, it views its effective implementation in practice with some scepticism. This is because of its experience at PNR where the potential for departure from the originally agreed movement patterns, without its agreement, has been shown to be very real (2.100, 2.102, 3.49, 5.8, 11.10, 11.17 & 12.16).

15.64 The Appellant accepts that the TMP is predicated on the use of alternative routes and agrees that the appeal could not be allowed if only one route were allowed. LCC and RAG argue that all three routes should be available if planning permission is to be granted. Whilst the Appellant points out that LCC could take enforcement action if the TMP provisions and planning conditions are breached, LCC are less sanguine about the reality, particularly in the context of its experience at PNR. There is dispute as to how many breaches there have actually been at PNR and the role the police played in these. However, there is no doubt that the breaches have been significant and numerous and that those involved from the community at first hand have little confidence that that situation will not be repeated at RW (2.101, 2.104, 3.12, 3.49, 4.53 & 11.10).

15.65 The traffic circumstances at PNR are very different to Roseacre Wood. Traffic accessing a site by primary roads with four lanes and footpaths and with easy access to a motorway, should be much easier to manage in such circumstances than on narrow country lanes without footpaths. As LCC stresses, the flexibility of three routes is counterbalanced by the additional complexity. The Appellant sets out reasons, such as the availability of three rather than one routes, as to why PNR would not be repeated. Nevertheless, the evidence from PNR does not provide confidence

for a scenario that a TMP that regulates the use of the proposed routes, by vehicles visiting RW, would be fairly implemented by the Appellant and that if business circumstances dictated, the Appellant would not breach the TMP and indeed the relevant planning conditions. The scenario of an unavailable route across DHFCS Inskip, for whatever reason, for more than five days was raised. The question as to whether or not the Appellant in reality would suspend, or even in practice be able to suspend, operations (indefinitely if necessary) was posed? In this context, the Appellant's failure to disclose the Agreement with the Ministry of Defence does not assist the assessment of the likelihood of this conundrum let alone its outcome (2.108 & 12.34).

Swept Path Analysis

15.66 RAG is also critical of the Appellant's Swept Path Analysis, pointing out that the routes chosen are ideal and for the most part would not be the paths taken in reality when allowance is made for driver error. It highlighted the absence of any safety margin (good practice recommends 0.5m) other than in the revised drawing for the A585/B5269 junction (4.72-4.76).

15.67 RAG pointed out that the Appellant's witnesses had no expertise or experience in manoeuvring large HGVs. DB on behalf of the Appellant accepted that the Swept Path only showed one way in which a manoeuvre could be undertaken at a particular location. Indeed, more than one swept path is illustrated for some locations, e.g. the Salwick Road/Inskip Road junction. However, even without the margin for error suggested by RAG, the Appellant's diagrams clearly show a number of manoeuvres where there are undoubtedly highway safety risks. OGV2s, such as would be visiting the appeal site, would have no choice other than to drive on the wrong side of the road in order to negotiate around a bend or through a junction at a number of locations along the proposed routes. The critical concerns in my view are whether the driver has sufficient visibility at the appropriate time to assess whether or not s/he would be in conflict with another vehicle when making that movement and more fundamentally whether an unsuspecting, approaching vehicle would see him/her in sufficient time to take evasive action if their paths were in conflict and avoid a collision. These considerations are addressed further in my assessment of the three routes below (4.77 & 4.78).

The Routes

The Blue Route (BR)

15.68 The SoS endorsed the Inspectors conclusions regarding this route. They were that in the absence of satisfactory mitigation measures she was unable to conclude that its use would represent a safe and sustainable approach. In coming to this conclusion, she had safety concerns about a number of points on the route but in particular The Dagger Road/Treales Road/Station Road Junction, the Salwick Road/Inskip Road Junction and the narrow carriageway along Dagger Road (IR12.456-12.475, IR12.851, 4.83 & 4.84,).

Dagger Road/Treales Road/Station Road (Hand and Dagger) Junction

15.69 The safety risks stemmed from the possibility of two HGVs passing at the junction and a concern, introduced by RAG that HGV's turning into Station Road could overturn. Despite the Inspector's issues concerning this junction and the prominence

given to them in her report, the Appellant has offered no mitigation to overcome her concerns. Instead it pointed out that there is clear visibility across the fields and up and down Dagger Road and that the previous Inspector was wrong to accept the concern about overturning HGVs (2.58 & 4.96).

15.70 The Appellant's new swept path analysis confirms what was discussed in 2016. HGVs have to encroach to some extent (depending upon their route of movement) into the opposing lane at a number of points, whether travelling inbound or outbound through this staggered junction. RAG's Road Safety Risk Assessment again identified a number of similar specific safety concerns relating to the junction (2.58 & 4.97).

15.71 The swept path drawing shows outbound vehicles straddling the centre line on Dagger Road and swinging well into the opposing carriageway on Treales Road when turning left out of Dagger Road. Whether most HGVs would follow this path, rather than encroaching further into the northbound side of Dagger Road, in order to reduce the swing needed into the opposing carriageway on Treales Road is debatable. Either way the vehicle would be in conflict with any vehicle travelling towards Kirkham on Treales Road and that vehicle would most likely not see it until it was crossing the canal bridge. The clear visibility at this junction does not extend to vehicles travelling west along Treales Road across the canal bridge. There was no survey at the junction but the Appellant's survey on Treales Road west of the junction (a location that is not on any of the proposed routes) shows the 85% speed to be about 45 mph on a road with a 60 mph limit. If two HGVs are within the system (i.e. on Treales Road) at the same time there would be room to pass but it would require careful manoeuvring and positioning, necessitating a slow approach. Whether there are one or two large vehicles slowly negotiating this junction there would be a safety risk (2.58 & 4.98).

15.72 Whilst there is a wide exit to Station Road for outbound vehicles to swing into, on every occasion that I visited the junction, there were at least two cars parked on the eastern carriageway adjacent to a set of steps that lead down to the canal tow path and sometimes significantly more. The tow path appears to be extensively used for walking, running and fishing and the canal by canoeists. If cars are thus parked, then the Appellant's swept path would not be possible. In such circumstances the right turning trailer would be in conflict with vehicles using Station Road's centre lane to turn right. These vehicles have no visibility westwards along Treales Road until close to the stop line because of the trees in Molly's Plantation. It is unlikely that they would see a right turning vehicle moving along Treales Road until it was too late to take evasive action. One or both vehicles would have to reverse in a location that is very close to the canal bridge. (2.56, 2.58, 4.99 & 12.57).

15.73 Northbound HGVs need to swing into the eastbound side of Treales Road when exiting Station Road and would only be able to enter Dagger Road if there was no large vehicle south of the passing place. The passing place is on the western side of the road and whilst it provides a place for vehicles travelling north on Dagger Road to await a vehicle travelling in the opposite direction, south of the traffic lights, it is by no means certain that drivers travelling south would wait here rather than proceeding to the junction, even if they had observed a large vehicle travelling in the opposite direction at the Station Road Junction or along Treales Road. Most drivers would not know if a vehicle was going to turn right into Dagger Road rather than travel along Treales Road, which is the major road, in the direction of Kirkham. In the event that a southbound HGV had proceeded to the junction, whilst the vehicle entering Treales Road from Station Road was intending to turn right into Dagger Road, one of the vehicles would have to reverse (2.58 & 4.99).

15.74 A significant part of the Appellant's case is that there is currently good visibility across low hedges to ensure that the manoeuvres are carried out safely. For the most part that is correct but there is a wood on the left side of the Station Road junction (Molly's Plantation) obscuring the view towards Dagger Road until shortly before the stop line. Any vehicle travelling north and positioning itself to turn left could quite easily locate itself astride the two north bound carriageways before it knew that there was another large vehicle travelling south and intending to turn right into Station Road. The previous Inspector pointed out that during the lifetime of the permission there was a potential for the hedges to grow in such a way over time so as to impede visibility. Whilst I note that LCC could take action to secure the removal of overhanging hedges, the extent to which it could take action is far from clear and it is not something that could be necessarily achieved immediately (see paras. 15.52-15.57) (2.58 & 4.99).

15.75 The best description of the road profile at the Station Road junction is that it is uneven. There is nevertheless an overall adverse camber at this junction, from the inside of the bend on its western side towards the north-eastern corner of the junction. The carriageway at the junction rises from the north-eastern corner, adjacent to Treales Road at the canal bridge, towards Molly's Plantation. There is also a noticeable difference in spot heights between the western and eastern sides of the road. The potential for an articulated vehicle to overturn during a right turn, particularly when carrying unstable loads such as flow-back fluid, was endorsed by the previous Inspector and was reiterated by TH at this Inquiry. The scenario was also advanced by David Rimmer on behalf of SAFE. He is a long-established HGV driver with practical experience in HGV safety. In his view, the adverse camber in combination with the uneven road profile and acute turning angle and the need for vehicles to accelerate up an incline means that this is a high-risk location for trailer wheel lift and potential roll-over. Despite the previous Inspector's clear concern, the Appellant's only positive answer was that vehicles would be going slow and that the Inspector was wrong to take note of TH's evidence. I disagree (2.59, 4.98 & 11.30).

15.76 Again, the Appellant's highway witness asserted the safety of this part of the route but without any meaningful risk assessment. The evidence still does not satisfactorily rebut the risks associated with the use of the Dagger Road, Treales Road, Station Road junction by large articulated HGVs as identified by RAG and others and endorsed by the previous Inspector. Despite that, no mitigation is proposed at all (2.59 & 4.101).

Inskip Road/Salwick Road Junction

15.77 RAG's risk assessment raised concerns about drivers of long vehicles, when turning left out of Inskip Road into Salwick Road, being in the wrong lane in order to make the turn. The Appellant's initial swept path analysis shows a vehicle only marginally crossing the centre line on Inskip Road but then occupying the whole of the wrong carriageway on Salwick Road. A subsequent one implies more significant occupation of the opposing carriageway on Inskip Road but less infringement on Salwick Road. Situations between these extremes are the more likely (4.85 & 4.87).

15.78 RAG submitted that oncoming traffic along Inskip Road from the west would not be able to tell that an HGV was in their lane as they came around the shallow bend towards the junction. The Appellant points out that there is good visibility in all directions for HGVs and they will be able to see oncoming vehicles. At the time of the Inquiry that was a correct assessment as regards the north side of Inskip Road.

However, there was not such continuous visibility for drivers of cars or light vans. TH's point about the effect of HGVs on the wrong side of the road is a valid point. Even if drivers see the HGV from a distance, there is no reason to suppose that they will automatically assume that it is the wrong lane and slow down, particularly as the view would be against the backdrop of Pointer Wood. This could interfere with the perception of the position of the lorry from the other driver's perspective. The HGV would inevitably be negotiating the junction slowly, so it is perfectly feasible for a HGV driver to begin the manoeuvre at a time when the road appears to be clear only for it not to be at some point before the manoeuvre is completed. Although traffic speeds on Inskip Road appear to have been recorded by the Appellant, they were not presented to the Inquiry. Traffic travelling on Higham Side Road towards Inskip Road, which is similar, is recorded to have an 85% speed of 56mph, the fastest of all the points surveyed that were put before the Inquiry (2.68, 2.69 & 4.86).

15.79 Whilst there is good visibility for HGVs travelling west along Inskip Road, that is not the case for such vehicles turning left out of Inskip Road and into Salwick Road, which is the route outbound vehicles would take. Pointer Wood intervenes. Because of Pointer Wood, a vehicle travelling north up Salwick Road would not see a southbound vehicle turning into the road at the junction until it was occupying the mouth of the junction. The reverse is also the case. Given the wrong timing there would be a need for one or both vehicles to reverse in order to enable them both to undertake the turning movement. Some of the reversing could be in the wrong lane and in conflict with other road users, particularly ones travelling eastwards along Inskip Road (4.88).

15.80 Like the previous Inspector, I am not reassured that the use of this junction by large articulated HGVs has been properly considered and assessed (IR 12.464).

Dagger Road

15.81 The previous Inspector was concerned about the ability of vehicles to pass on Dagger Road and the additional unacceptable hazards for VRUs. The carriageway widths in over a kilometre between Treales Road and the approach to the M55 motorway bridge are rarely above 5.0 metres and sometimes below 4.5 metres. Manual for Streets identifies 5.5 metres as the minimum distance that two HGVs could pass and 4.8 for a car to pass an HGV. Neither of these is recommended for implementation in practice. HGV's cannot pass on this stretch of road without straying onto the verge at various points where the highway is wide enough to accommodate such a manoeuvre, but this is far from universal. Despite the limited use of this road by HGVs, there is clear evidence, in the form of rutted verges, of vehicles passing by using the highway verge (2.60, 3.4, 4.93, 4.94, 12.32, 12.58 & SV).

15.82 The Appellant's solution is to install traffic lights on the northern stretch for over 800 metres south of the M55 motorway bridge. The lights would only be triggered by an HGV wishing to enter the section whilst there was another one within it moving in the opposite direction. The southern part of Dagger Road would contain passing places. The road is straight at this point, with good forward visibility and such a solution should make this stretch of road as safe as it could be. In principle the traffic lighted section also seems to be an appropriate solution (2.60).

15.83 However, representations, confirmed by observations at the accompanied site visit, demonstrated that there was an adopted road, Moss Lane East, feeding into Dagger Road close to the northern end of the proposed lighted section and an access

lane to a farm that is used as a base for an agricultural contracting business, close to the southern end. There are also accesses to various fields within the proposed system. Much, but not all, of the land on both side of the road is used as pasture and I was told that from time to time animals are moved along the road. None of these appear to have been considered by the Appellant prior to the Inquiry (2.62, 3.40, 4.95, 12.31 & 12.33).

15.84 LCC, RAG and others are concerned that vehicles will enter Dagger Road from one of these at the same time as an HGV is in the system coming the other way. That part of Dagger Road is not entirely straight, and it has an uneven vertical profile so that there are parts where, because of shallow bends or dips in the road, visibility is restricted. An HGV in this stretch of road, under such circumstances and whose driver would not be expecting another similar vehicle or animals coming towards it in the opposite direction may not be aware of the hazard until it was almost upon it. At best the lights would cause confusion in these circumstances (2.65, 3.40 & 12.32).

15.85 LCC is also concerned about non-HGVs jumping the lights; given the length of time it would take a large HGV to negotiate this length of road. Additionally, parts of the road are not even wide enough for a car to pass an HGV and such a situation would not trigger the lights. Most likely the cars would be forced onto the verge or have to reverse to a point where the highway is wide enough for them to safely pass. The Appellant points to the existing situation in defence, pointing out that cars must pass HGVs safely now because there are no recorded injury accidents. Whilst that is so, the Appellant's contention overlooks the fact that the use of the road by vehicles servicing the Cuadrilla site will totally change the composition and volume of HGV traffic using the road (2.61, 3.40 & 4.92).

15.86 The Appellant pointed out that in any event the desired outcome is to minimise the risk in a proportionate manner, not to achieve zero risk. Whilst the point is correct, again the Appellant's proposal would change totally the nature and numbers of vehicles using this road. Just because other vehicles currently meet and pass HGVs on this stretch of road at the moment, without recorded incident, does not mean that they all would in a new situation with substantially more OGV2s than use the road now (2.62 & 3.41).

15.87 As the Appellant suggests, Moss Lane could be incorporated into the system and with agreement so could the farm access. Additionally, regular agricultural vehicles using the lane could theoretically be given tags. However, the access is private land and the owner appeared at the Inquiry to object. The Appellant also suggests that conflict with other agricultural users of the lane could be satisfactorily resolved through a notification scheme, although no details of such a scheme or of the practicalities of tagging were advanced. As at other locations of concern to the previous Inquiry, the Appellant has failed to show that its proposed mitigation would be "*workable in practice*" and "*achieve the desired outcomes*" (2.62 & 4.95).

15.88 LCC raised issues about a number of technical aspects surrounding the construction and location of the traffic lights and the ancillary equipment, particularly at the southern end, in the context of the space available. Whilst tight and far from ideal, I am not persuaded that a design could not be implemented that was safe. However, despite the opportunity, no revised scheme was put before the Inquiry to overcome LCC's technical concerns (2.64 & 3.39).

15.89 LCC and others are also concerned about VRUs and the space available on certain parts of Dagger Road, either on the carriageway for cyclists or on the verge for

pedestrians and horses, if they are confronted by large HGVs. The Appellant points out that these users safely meet HGVs at the moment. Whilst this is the case, if the appeal proposal were to go ahead then instead of only 6 two way class 6 HGVs on Dagger Road and 1 OGV2 between 07:00 and 17:00 at the moment, the Cuadrilla scenario is up to 50 of the largest class 10 OGV2s, a completely different traffic landscape (2.63, 3.42-3.45, 11.3-11.5 & 12.32).

15.90 RAG raised its concerns about rutting and roll-over. Despite the apparent low usage and the generally lighter weight of the HGV's using the road now, there are numerous examples of rutting on the verges. Although an ability to prevent HGVs from having to pass each other on the traffic lighted stretch would reduce this, there are likely to be many more occasions when smaller vehicles are likely to need to pass HGVs. More HGV's would probably need to use the verge overall than occurs now and given the existence of verge areas already lower than the carriageway and wet spots on this lane, the prospective of deep ruts in which HGV's could scrape their axles or become unstable, in the manner described by RAG, is a real possibility (2.66, 11.6 & SV).

15.91 As the previous Inspector concluded, in its current form Dagger Road is not capable of safely accommodating the additional traffic generated by the appeal proposal. With a comprehensive traffic lighted system, accompanied by some road improvements that removed the risks on this stretch of road, it could be. However, such a scheme was not put before the Inquiry.

Passing Places

15.92 The previous Inspector concluded that the proposed mitigation in the form of passing places had not been shown to be workable in practice, that there were inherent deficiencies and obvious risks, which could not be satisfactorily overcome by the imposition of planning conditions. Instead of the five passing places previously proposed, the Appellant now proposes 12 plus the part time traffic lights (4.95).

15.93 During this Inquiry representatives of the Appellant and of LCC met, agreed the parameters and went and measured the ability of the proposed passing places to accommodate the requirements on site. It is agreed that on the BR there is insufficient decision time inbound on the approach to PP5, with the obvious risk that drivers will overrun PP5 due to a lack of forward visibility. On approaching PP6 inbound, an incline along the road, along with the hedge, obscures the visibility to PP7. LCC considers that as a result, vehicles could overshoot the PPs, a slow head on collision, a reversing manoeuvre or the use of the verge to enable the vehicle to pass being the likely outcomes. The Appellant points out that there is sufficient verge to utilise either side of the PPs and that further verge protection could be put in place as a part of the on-going monitoring of the highways (2.67, 3.33, 4.90 & 4.91).

15.94 The disadvantage of this is that VRUs could be using the verge for protection and in a stretch of road with PPs provided, would clearly be expecting HGVs to be using these and not the verge. A preferable solution would be to implement a scheme with the appropriate visibility from the start. A Grampian condition could achieve this, although as LCC point out, the previous Inspector was not persuaded that outstanding issues such as inter-visibility were appropriately relegated to a later detailed design process. LCC concluded that in these circumstances this Inquiry should not proceed on the basis that there may be some other as yet unidentified proposal which might be superior. The Appellant has had adequate time to assess the visibility aspects of this route from a safety perspective and to design robust mitigation to overcome

potential hazards. I therefore share the opinion of LCC and the previous Inspector (2.37 & 3.32).

Station Road

15.95 RAG drew attention at the last Inquiry to the risks on the section between Treales Road and the Westinghouse Plant. They highlighted the tight bends that required long OGV2's to occupy the opposing carriageway, narrow roads where two HGVs could not always pass, the poor condition of the carriageway and the lack of kerbs along much of the route. These arguments were again repeated at this Inquiry. I share RAG's concerns and in addition note from personal experience that despite the recent maintenance of all of the hedges, because of their height and the road profile it was not always possible to see approaching vehicles across the hedges and fields even from the cab of an OGV2. This phenomenon was far more so in the case of smaller vehicles. There is definitely a highway safety risk. Whilst I share the previous Inspectors conclusion that these are not the most significant areas that are of risk to highway safety, there is nevertheless a risk that should weigh in the overall balance against the proposal (2.54 & 4.103).

15.96 RAG highlighted the poor condition of the western edge of the elevated highway adjacent to Molly's Plantation on Station Road. TH referred to the "drop offs" on the edge of the carriageway and the potential for "roll-over". In the Appellant's opinion, if issues are discovered at the time of the Highway Condition Survey then the road could be repaired, new base coursing laid and if necessary appropriate kerbs installed. Although there is nothing specific before the Inquiry, such a solution should be capable of overcoming the safety concerns adjacent to Molly's Plantation, assuming that overall the Appellant is providing sufficient financial resources to fund overall carriageway repair and improvement works. Again, this matter was raised at the last Inquiry and the Appellant has had ample time to assess the position and if necessary propose specific mitigation (4.102).

15.97 Since the last Inquiry the railway bridge appears to have been rebuilt and in the process the carriageway narrowed. Notwithstanding this and although two HGV's cannot easily pass now, there is adequate visibility, despite the ramps up. Consequently, opposing vehicles would see each other in time to take evasive action (2.53 & 4.104).

15.98 The Windmill junction to the south has a blind corner because of the location of a house. However, this obstructs visibility to the left and there is good visibility to the right for any vehicle exiting Church Lane. Vehicles crossing into Deepdale Lane or turning right into Station Road can safely edge into the northbound carriageway, to ascertain the existence or not of southbound traffic, before deciding whether or not to complete their movement. Whilst RAG referred to several near miss accidents at this junction, there is no recent history of personal injury accidents here. I note the expected increase in HGVs using this junction because of the Preston Western Extension scheme. However, increased vehicular use will not reduce the visibility considerations. Whilst I note the restricted nature of the footpaths along the route through Clifton and the absence of a pedestrian crossing at the park, again there is good visibility. (2.52, 10.3, & 12.37).

15.99 RAG and others are also concerned about the use of the junction of Lodge Lane with Blackpool Road by long HGVs turning right into the former and the potential for the rear of the trailer to swing out into the running lane as it turns. Also, vehicles having to turn right into Blackpool Road across opposing traffic, whilst moving slowly.

However, these movements are undertaken by HGVs visiting the Westinghouse Plant, on a daily basis, at the moment and there is no evidence before the Inquiry of serious accidents. This junction has also not given the Highway Authority any cause for concern (2.52, 4.105 & 12.36).

Blue Route Conclusion

15.100 The SoS referred this appeal back because the previous Inspector's conclusions largely rested on the failure of the Appellant to provide adequate evidence that it had properly considered and addressed the safety issues and the failure of the Appellant to demonstrate that its proposed mitigation was workable in practice. For the most part, the Appellant's new evidence is very similar to that advanced at the previous Inquiry and rejected by that Inspector; an excellent historic accident record, good visibility for HGV drivers, driver education and training for those visiting the appeal site, short duration of the project and use of an effective TMP (15.1 & 15.2).

15.101 Whilst the Appellant has prepared and submitted a more comprehensive scheme of mitigation than before, that scheme proposes no mitigation for the two junctions on the route, whose use by large articulated HGVs, the previous Inspector and SoS considered had not been properly considered and assessed. At the same time most of the other concerns raised by RAG and the Inspector remain unaddressed. Where effective mitigation has supposedly been introduced, that mitigation is not comprehensive, has unnecessary omissions and is consequently flawed. In consequence my judgement is that the finding of the previous Inspector that in the absence of satisfactory mitigation measures she was unable to conclude that the use of the preferred route would represent a safe and sustainable approach and that the proposed development would have a serious and very significant adverse impact on the safety of people using the public highway, still stands (4.106).

The New Routes

15.102 The Appellant introduced two new routes to the reopened Inquiry, partly in an attempt to increase routing options to combat the potential disruption to the supply chain that could be caused by legal protest on the narrow roads that make up much of the BR. However, many of the selected roads to be used are not dissimilar to those on the BR and these routes traverse three villages, Elswick by both routes, Roseacre by the GR and Inskip by the RR. Unlike at Clifton on the BR, the widths of the roads through these villages are not ideal. The routes are common between the A585(T) junction at Thistleton and the junction of Elswick High Street with Roseacre Road, following the B5269 (1.30 & 2.5).

15.103 The GR then follows Roseacre Road in a southerly direction to the appeal site, whereas the RR follows the B5269 eastwards along Lodge Lane and Preston Road to beyond Inskip, where it turns south to join the BR. They both then traverse DHFCS Inskip westwards to the appeal site (1.30).

Green and Red Routes Together

15.104 The Appellant proposes that HGV traffic, visiting the appeal site, would operate in both directions simultaneously along this part of the routes (2.5b).

A585(T)/ B5269 (Thistleton Road) Junction

15.105 RAG, along with others, raised similar concerns about this junction as it did against the A583 junction with Lodge Lane. At peak periods this is undoubtedly a

congested junction, even in the prelude to the holiday season. The small queue of traffic on Thistleton Road, could only get longer as the holiday season progresses and if the route was to be used by HGVs visiting the appeal site. At certain times of the day it could take HGVs, wishing to turn right onto the northbound carriageway of the A585(T) a considerable period to do so unless they took risks (6.3, 11.25 & 12.29).

15.106 The risk of the trailer of vehicles turning right into Thistleton Road intruding into the northbound running lane, identified by TH on behalf of RAG and David Rimmer (4/2) on behalf of SAFE is also a real possibility unless the road is widened. However, these concerns appear to have been identified by HE in their correspondence with the Appellant. Although the Appellant professes that its scheme of improvements, which do not address the concerns about this right turning movement, meet HE's requirements, HE has not confirmed that. Indeed, its latest letter suggests that it is not able to formally agree the scheme as this will be the subject of a Stage 1 Road safety Audit and audit of compliance with Design Manual for Roads and Bridges (DMfRB) standards. Whatever HE's final deliberations on the need for justified improvements to this junction, in order to accommodate the Appellant's traffic, then providing any approval is conditioned to ensure that these works are completed to HE's satisfaction, before the development commences, the matter should be capable of a satisfactory resolution (2.76-2.78, 4.125-4.130, 6.4, 11.26, 11.28 & 11.29).

A585(T)/ B5269 Thistleton to Elswick

15.107 There is a sharp bend at the junction of Thistleton Road with the continuation of the B2569 towards Elswick. The swept path analysis shows vehicles negotiating the junction in both directions straying into the opposing carriageway to some extent. There are frequently parked cars outside of the cottages on the south side of Thistleton Road. These could interfere with the ability of west bound HGVs, in particular, to successfully negotiate the junction without reversing, unless a TRO is implemented. No such remedial action was suggested (2.79, 4.131, 6.2 & 12.39).

15.108 Much of Thistleton Village is a Conservation Area, and Thistleton Road beyond the B2569 is a pleasant, lightly trafficked village street. It eventually leads to the A585(T) a short distance to the south of its junction with the B2569. GwTPC raised concerns about south-bound traffic destined for the A585(T), at the times of queuing at the A585(T) junction, rat-running through the village. Such an occurrence, if compounded by the addition of OGV2s visiting the appeal site, would hardly preserve or enhance the character and appearance of the Conservation Area and do little for highway safety concerns within the village itself. However, the Appellant has offered to monitor the situation via the TMP. If the problem developed to the extent that action was justified, then a TRO could prevent HGVs traversing through the village or if necessary, all traffic that did not require access into Thistleton village. The use of this route by vehicles visiting the appeal site could be prevented by a condition (8D) (2.79 & 6.3).

15.109 Between Thistleton and Elswick there is a bend where long HGV's would be unable to pass. However, the hedges are exceptionally low along this stretch of road, such that most vehicles could see an approaching vehicle of whatever class and give way safely if the need arose (5.3 & 12.30).

15.110 There is a double bend at the western entry into Elswick. Two long HGV's would not be able to pass whilst negotiating each arm, indeed traffic has to give way to allow most HGVs to negotiate the corners, particularly the southern one, at the present time. Vehicles are able to stop before the second corner, in a position where

they can just see an opposing vehicle across highway land. This enables one to wait whilst the other passes safely. However, if one allows for the necessary stopping distance, the sight line would require drivers to be able to see across the garden of the dwelling on the north-east side of the bend. At the present time, this garden has been landscaped and a boundary hedge recently planted. There is no vegetative obstruction to the visibility now. If the vegetation and particularly the hedge, was allowed to grow above the sight line then there could be a highway safety problem (2.80, 4.132 & 5.3).

15.111 Vehicles regularly park along the following stretch of Elswick High Street, some at dwellings that do not appear to have off-street parking. These could impede visibility and cause congestion. Theoretically, a TRO could regulate where vehicles park on Elswick High Street if parked vehicles were regularly causing traffic congestion and alternative parking could be provided (2.81 & 4.133).

15.112 Given the need for OGV2s to use both carriageways, in a number of locations along this part of the route, I am not persuaded that it is appropriate for there to be two way working. There are clear opportunities for long vehicles meeting and having to reverse. Such manoeuvres present obvious risks for other, often unsuspecting traffic as well as VRUs in the same way as on the rest of the network. Here the Appellant has voluntarily suggested one-way working at any particular point in time. An amended condition (8D) could prevent HGVs, visiting the appeal site, from passing on this stretch of road in the same way as proposed on the rest of the network (4.142).

The Green Route (GR)

Roseacre Road

15.113 The GR leaves Elswick High Street in the middle of the village, turning right into Roseacre Road, which it follows to the appeal site. Roseacre Road, for the most part, is a narrow lane once it leaves Elswick, the carriageway being largely less than 5.0 metres wide in many places. Indeed, it is as narrow as 4.03 metres at one point. The overall width of the highway is mostly below 7.0 metres. Other than at points within the built-up parts of Elswick and Roseacre, rarely is the carriageway wide enough for two HGVs to pass. There are always parked cars on the urban parts of the highway, particularly in Elswick, where the road is fronted by terraced housing with no off-street parking at some of the properties (4.136, 12.42 & 12.47).

15.114 The Appellant's solution, to the narrow road south of the village, is to construct sixteen PPs over a distance of about 3Km. LCC considers seven of these to be unsuitable, two are susceptible to flooding and three do not widen the carriageway sufficiently to allow two HGV's to pass without using the verge. The other three, it is agreed, do not have adequate forward visibility (3.33-3.35, 4.138, 4.139 & 11.31).

15.115 The Appellant argued that the flooding and width arguments were a matter of detailed design. Potential flooding could be identified through the baseline highway condition survey and improvements carried out through the TMP. Similar action could resolve the width issue, but this assumes that there is verge of sufficient width to facilitate it. LCC are content with this providing there is a mechanism to ensure that the Appellant reasonably meets its concerns and does not use permeable asphalt (2.42 & 3.33).

15.116 In addition, a revised location has been agreed in principle for PP1. However,

the owner of The Beeches, Roseacre Road attended the Inquiry to demonstrate that PP4 was proposed on land that was in his ownership. He has not given his consent for his land to be used as a passing place and does not intend to do so. PP4 overlaps, in part, with PP3, which is on the other side of the road. No revised solution was presented to the Inquiry, although the Appellant asserted that the matter could be satisfactorily resolved through the TMP. Other representations referred to the inappropriateness of other locations for passing places, such as being used by children waiting for school buses. (11.31, 12.50 & 12.59).

15.117 With regard to the remaining three passing places, with inadequate forward visibility, Cuadrilla consider the most likely outcome, if better forward visibility cannot be achieved through further feasibility investigation, would be the passing of vehicles on the verge. It referred to driver education and the development of a Route App facility to alert drivers visiting its site to the location of the passing places. This would not of course alert other drivers and the Route App, in any event, as LCC points out, has not progressed beyond the ideas point at this stage. As drivers are employed by sub-contractors and not directly by Cuadrilla and many would not be regular visitors to the site I tend to agree with LCC and RAG that too much emphasis should not be placed on driver education and the use of technology to overcome what are fundamental errors in the design of the proposed mitigation (2.98, 2.99 & 3.36).

15.118 The use of the verge has its own inherent problems, in particular the development of ruts and the safety ramifications of this in the context of vehicle roll-over expounded by RAG. There is already some evidence of rutting on Roseacre Road, despite its low vehicular usage, particularly by HGVs. The verges are also meant to be pedestrian refuges along a road that has no pavements (11.5 & 12.49).

15.119 For reasons that are not entirely clear, the Appellant's surveys did not include a survey point between Elswick and Roseacre. The nearest one was in the vicinity of the appeal site between Roseacre and Wharles. Given the population residing in Roseacre and Wharles and their surroundings, as opposed to Elswick, one would expect to see far more pedestrians on Roseacre Road between Elswick and Roseacre than between Roseacre and Wharles.

15.120 The Appellant agrees that there are no obvious destinations in Roseacre or Wharles to attract pedestrians. Given their low populations it is unsurprising that the Appellant's survey found few pedestrians using this route in their vicinity. Elswick has a shop and other facilities that act as attractions, but I accept that not everyone residing in Roseacre would want to undertake the 5Km round trip to Elswick on a regular basis and even fewer people would want to walk from Wharles to Elswick (2.96).

15.121 However, Saswick House Farm, with its farm shop and tea room is located between Elswick and Roseacre and that would make a pleasant round trip for anyone wanting to go for a walk in either village. Given that Elswick is one of the larger villages in the area and its surroundings are not overloaded with public footpaths and bridleways, it would be surprising not to find pedestrians on a fine summer's day walking to and from the tea room in both directions. A consequent pedestrian count that is much higher than that recorded at the appeal site, which is over 3.0Km from Elswick could be expected. However, we simply do not know the numbers because the Appellant did not survey this stretch of road. The absence of the information at the very least calls for caution (2.97 & 3.43).

15.122 The Appellant rightly points out that after the bend to the west of Roseacre

village there is good visibility between Roseacre and Saswick House Farm. However, visibility is less good north of the Farm, particularly at the bend where PP8 is located. This is one of the remaining passing places that LCC is concerned about because of a lack of forward visibility (2.97 & 3.33).

15.123 It was estimated that about 40% of the verge would be lost to passing places along the length of Roseacre Road where they are to be provided. Another estimation suggests that the passing places would replace 560m of grass verge over the 3.1Km stretch of Roseacre Road that is affected by the proposal or about 20%. This is not insignificant, whatever the number of pedestrians and equestrians. The verges are meant to be a refuge, on highways such as this, for VRUs when confronted with traffic on the highway (12.61, 12.25 & 12.49).

15.124 The route also attracts significant numbers of cyclists on a daily basis. The Appellant's surveys recorded the highest number of cyclists on Roseacre Road (an average of 86 per week day near the appeal site). According to Manual for Streets (CE/INQ/005) HGVs require a minimum width of 4.6m to overtake cyclists when travelling at 20 mph and 5.05m when travelling at 30mph. Most of the carriageway is less than 5.0m wide and some of it is below 4.6m. The mitigation proposed would only work if HGVs proceeded at 20 mph along Roseacre Road or they or the numerous cyclists waited in the passing places. According to the Appellant's survey, on average HGVs are currently travelling at speeds of about 30 mph along this road (3.42-3.44 & 11.32).

15.125 The Appellant refers to the small number of HGVs using Roseacre Road during a typical 12-hour day. 26 were recorded, excluding agricultural vehicles but only 6 are above class 5 of which 3 are Class 6. The survey recorded 23 agricultural vehicles using the road during the same time period, many of which are wider than HGVs. As well as the 48 HGVs/agricultural vehicles, the survey also recorded 580 other vehicles. Animals are also frequently moved along the road. RAG estimates an increase of 1666% in the number of articulated vehicles using this road so that the traffic conditions would be entirely different to now (2.94, 4.136, 11.32 & 12.48).

15.126 Manual for Streets (MfS) suggests that an HGV requires a minimum width of 4.8m to pass a car if they are both driving at 20 mph. The Appellant's survey records an average car/light van speed of 33 mph northbound and 34 mph southbound and an even faster OVG1 speed of 35 mph in both directions. Even OVG2s were recorded to travel on average at speeds of 31 and 27 mph, whilst the 85th% speed was 45 mph in both directions. These speeds are far in excess of the 20-mph suggested in MfS as necessary for vehicles to safely pass in 4.8 metres (3.41 & CE/1/1 pgs. 17/18).

15.127 Either the existing traffic would have to significantly change its driving habits along this road, to enable vehicles to pass at 20mph or the HGVs would have to repeatedly wait in passing places or vehicles will continue to act as now and HGVs will pass cars by using the verges. There would be many more HGVs than now, particularly the larger ones so that the use of the verge and the damage to it, along with the inherent risks, will intensify.

15.128 The survey suggests that about 300 vehicles are using this road in each direction in the twelve-hour period (about 25 per hour). If HGV's have to stop and wait to pass them and the cyclists, travelling in the opposing direction at passing places, then it will be a relatively long 3.1 Km journey along Roseacre Road. The 300 vehicles travelling in the same direction as the Cuadrilla HGVs would become frustrated by the continuous waiting and some will attempt to overtake the standing

HGVs in circumstances where the visibility is not good. This is a recipe for increased highway safety implications, without the introduction of passive protestors, whether in the guise of pedestrians and cyclists walking or cycling to or from the tea house, drivers wishing to enjoy the local countryside experience or simply as protestors leaving parked vehicles or waiting in them in the lane (Table 2.6 CD 7.2).

High Street/Lodge Lane/Roseacre Road junction

15.129 The Appellants Swept Path analysis suggests that whilst the largest articulated vehicles could manoeuvre around this junction, they would need to stray into the opposing carriageway to do so. Outbound vehicles would have to give way to inbound vehicles before making the left turn into High Street. However, there is restricted visibility to the left and the village shop is located on that corner. The Appellant's 2014 TA said "*there is limited visibility available for the left turn into the B5269, which would make this turn difficult for HGVs exiting the site*". LCC have confirmed that an increase in HGVs making this left turn movement would be "*a potential concern*". The Appellant's site survey confirmed the visibility as 26.3m to the nearside kerb when measured from 2.4m back and 27.6m when measured 1.5m back. The appropriate visibility is 2.4m x 41m for 30 mph roads such as these. Pedestrians are crossing the four-legged junction and congregating outside of the shop. In addition, there were always several vehicles parked, including occasional delivery vans, immediately east of the junction on High Street, as well as on the adjacent part of Roseacre Road, whenever I visited. The Appellant proposes no mitigation to address this issue. Whilst the junction seems to work with the very limited number of OVG2s using it at the moment, without a TRO to remove the parked cars close to the junction, then its successful use by up to an additional 50 OVG2s per day would seem to be problematic. There is no proposal for such a TRO and were one to be proposed, then opposition from the proprietors of the shop and the users of the spaces could no doubt be expected. A successful TRO could not be guaranteed (2.82, 2.93, 4.134, 4.135, 5.5, 12.38 & SV).

Community facilities

15.130 At the southern end of the built-up part of Elswick village there is a Village Hall and a children's playground with a playing field to the south and a village nature reserve beyond. This location attracts pedestrians from other parts of the village and the playground was exceptionally busy outside of school hours. The Appellant is right to point out that HGVs go past playgrounds as a standard part of any highway network (2.94, 4.137, 5.4, 12.41 & SV).

15.131 There are two pedestrian networks taking people to this complex of community facilities. One ends along the pavements either side of Roseacre Road and the other in an access way that joins Roseacre Road immediately opposite the Village Hall. There are regularly parked cars along the length of Roseacre Road within Elswick village due to an absence of off-street parking for some of the terraced dwellings. This does not help the visibility or the movement of large vehicles along the road, but I do not consider it to be unsafe in that respect. However, some vehicles do appear to already have to park on the pavement to allow more space for passing vehicles on the road. This can lead to pedestrians walking in the road (4.137, 5.4, 12.41 & 12.42).

15.132 The access way joins Roseacre Road adjacent to a fence and high hedge, so that visibility for pedestrians from the 200 plus dwellings that this route serves is limited. Children regularly cross this road to use the playground after school and in

the school holidays and as described by EPC and others, some run into and across the road. There is no crossing or other safety feature to protect pedestrians, particularly unaccompanied children, at this point. Roseacre Road's use by a significant increase in OGV2s would substantially increase the risks of accidents involving children at this point (2.41).

15.133 The appellant quite rightly recognises the dangers to children created by its proposals outside of Inskip School and has offered not to route traffic past it at the times before the school starts and after it ends. Despite recording a personal injury accident (Fig 6 CD 7.2) to a child running out of the playground and into the road, no similar concern has been advanced in the context of the playground at Elswick and no physical or hours of use mitigation has been put forward to address the problem (2.85).

Green Route Conclusion

15.134 The Appellant's 2014 TA concluded its consideration of this route by saying "*If this route were to be used, it would be preferable to limit its use to one-way site HGV movements only. Due to turning and visibility restrictions along the route, it is recommended that this route is only used as a one-way route towards the site (i.e. eastbound from the A585(T)). An alternative route would therefore be required for traffic leaving the site. It is concluded that, whilst use of this route would be feasible (with the implementation of appropriate mitigation measures), there are more suitable routes available*" (3.25, 3.26 & 5.2).

15.135 I endorse these conclusions but am not satisfied that in the context of the exponential increase in large articulated HGVs which would use this road, if it were to be used as an access to the appeal site, the proposed mitigation, as now put forward by the Appellant and particularly along Roseacre Road, is sufficient to enable the route to be safely used even in the inbound direction. In the absence of satisfactory mitigation measures I am unable to find that the use of this preferred route would present a safe and sustainable approach. I conclude that the proposed development would have a very significant adverse impact on the safety of people using this part of the public highway (4.140).

The Red Route (RR)

15.136 The RR continues east from Elswick High Street, where the GR leaves it, along the B2569 to beyond Inskip, first along Lodge Lane and then along Preston Road. It then travels south along Higham Side Road and then, after it meets the BR, west through DHFCS Inskip to the appeal site (4.107 & 4.108).

Lodge Lane

15.137 Although a B Class distributor road, shortly after leaving Elswick, Lodge Lane is too narrow, (the Appellant estimates for a distance of about 70m) for two HGVs to pass. It is not immediately obvious where the wide spots are and therefore where to wait to give way. Some of this section is also without a footway. There is no mitigation proposed, not even signage, the appellant relying on HGV's giving way to one another, despite the ample evidence of vehicles overrunning onto the verges or the footpath that hugs one side or the other of the road, after it exists Elswick (4.109).

15.138 The Appellant's survey (which was challenged by third parties) suggests that about 177 HGVs use Lodge Lane in the 12-hour day of which 63 are OGV2s. Third

party evidence suggests that the illegal use of Gorst Farm for parking HGVs has recently swelled the numbers. The Appellant's proposal would only add a maximum of another 50 to these totals. However, there would clearly be more opportunities for vehicular conflict, particularly with pedestrians on the stretch without a pavement and more rutting on the verge would occur to the disadvantage of both pedestrians and vehicles. Despite its proximity to Elswick, the limited pedestrian survey on Lodge Lane, if accurate, suggests that it has relatively few pedestrians (7 were recorded on the day of the survey); probably suggesting that it is already considered to be a dangerous place to walk (2.81, 5.2, 11.9, 12.6, 12.12 & 12.40).

15.139 Beyond the narrow section is a double bend. Mature trees and a high hedge on the north side of the road, west of the bends, limit the visibility for all inbound vehicles around the first bend and a high hedge does the same for most traffic approaching the second bend especially that which is west bound. The Appellant's swept path analysis suggests that long articulated HGVs would only traverse these bends by using both carriageways. Opposing vehicles would have to stop to allow them to do so. Despite the comparatively large number of HGVs (63) currently using this road each twelve-hour day, only 13 are currently Class 7-10, suggesting that at the present time the vast majority of HGVs using the lane are short enough to pass each other on the bends. That would not be the case with many of the vehicles visiting the appeal site. As the Appellant's photographs show, the stretch of road between the two bends is bounded by fences or low hedges so that visibility is good. Providing that vehicles manoeuvre appropriately, then there is no reason why they could not wait and pass in between the bends. However, this does not eliminate the visibility problems on the approaches to both bends (2.83, 4.110, 4.111 & 5.3).

Lodge Lane/Preston Road Junction

15.140 Vehicles visiting the appeal site would need to turn right (in) and left (out) at this junction. The Swept Path analysis confirms that vehicles travelling in both directions would need to use the opposing carriageway on Preston Road to turn, to cross the centre line on Lodge Lane and that the road geometry would make the turns difficult in any event. To mitigate this, the Appellant proposes to widen the carriageway on the eastern side of Preston Road immediately south of the junction. This would enable two OGV2s to pass whilst negotiating the turn in and out of Lodge Lane (4.112).

15.141 A short distance to the south of the junction is another sharp bend. HGVs could see over the hedge on its inside at the time of the site visit. Some other vehicles could not. By late summer HGVs may not be able to. Long HGVs again need to cross the centre line to negotiate this bend. The turn is tight and as RAG points out, if an inbound vehicle gets the movement wrong and its trailer mounts the apex to the bend (there is limited verge at this point) then there is a clear potential for roll over (4.113)

15.142 It is doubtful whether an inbound HGV driver would see approaching traffic intending to turn left into Lodge Lane before the latter has negotiated the bend on Preston Road. It would also not know that the outbound HGV was going to turn left into Lodge Lane until it actually did so. There are clearly opportunities for other vehicles to inadvertently be in a position that prevents an OVG2 from following its desired line at the junction. One or both vehicles would have to reverse in some circumstances, with clear potential for rear end shunts as other unsuspecting vehicles came around the bend (4.114).

Crossmoor Bends

15.143 OGV2s would need to use the opposing carriageway when negotiating these three bends. No mitigation is proposed to reduce this but visibility for HGVs is on the whole good if not for small vehicles (4.115).

15.144 Either side of the bends are stretches of carriageway that are too narrow for HGVs to pass. The Appellant proposes four passing places with good forward visibility along the stretch west of the bends but none afterwards. However there is good forward visibility along this stretch, including at Lodge Court (2.84, 2.86 & 12.43).

St Peters School

15.145 The school has limited parking. In recognition of the difficulties that would occur if large HGVs tried to pass the site, whilst parents were unloading children on the road outside of the school, before and after classes, the Appellant has offered to restrict hours of operation on the RR to between 9am and 3pm during the school's term time. The school is still concerned about the highway safety risks of loading and unloading children onto buses waiting in the road, to take them swimming and when taking children on their regular visits to the village church, whilst OGV2s are using the road. It considers that the increase in large HGVs using the road will have an adverse impact on the safety of users of the school through a corresponding increase in the hazard posed by the road and the consequent increased risk of a child being injured or killed on the road (2.85, 11.20, 11.21 & 12.46).

15.146 HGV's are using Preston Road every day and children appear to be loaded onto buses or to walk to church under supervision at the moment but without incident. HGV's must already stop to enable children to cross the road. The main difference would be that there would be a lot more and particularly those of the larger types. The road would certainly be more intimidating to children than it is now, but the risks would not be dissimilar to the present situation, except that with more large vehicles, the opportunity for a child to inadvertently step into the road at the same time as a vehicle was passing would clearly increase (11.22).

Inskip Corner

15.147 There is a house on the inside corner of this bend in the middle of Inskip. Because the maximum achievable visibility is only 24.8m, OGV2s have to use the opposing carriageway to negotiate the bend and most vehicles have to wait for them to do so. Given the limited visibility, opposing vehicles would have begun their manoeuvre before they could see an HGV coming in the opposing direction. Vehicles already reverse at this corner and with up to 50 additional OGV2s per twelve hour day this event would be more frequent and given the increase in average vehicular length, more problematic (2.87, 2.88, 4.118, 7.3, 11.7 & 12.44).

15.148 RAG refers to the need to position the tractor unit close to the north side kerb in order to make the turn and the potential for the corners of the tractor and trailer units to sweep over the adjacent pavement. Pedestrians use the somewhat narrow footpath regularly. School Lane leads off Preston Road and provides access to the village playground. The corner is passed by unsupervised children on a daily basis and no doubt frequently during school holidays, on visits to the playground (4.117 7.3, 11.23).

15.149 The Appellant's proposed mitigation is a convex mirror. However, the impracticalities of this were expounded by Mr Nulty (3/1), who has personal experience of one at his home, and confirmed by LCC. Mirrors cannot be read when moving, the reflection is unreliable when wet and they cause dazzle when dark. To be used by HGVs, the mirror would have to be mounted at 3.0 metres and it would require regular cleaning and maintenance, as well as replacement when vandalised. A mirror mounted at 3.0m would not be usable by non-HGV traffic. I agree with LCC and RAG that a mirror would not resolve the safety risks that this corner presents and that the associated risks could only be increased by routing additional large articulated lorries through it (2.87, 4.116, 6.6).

Preston Road/Higham Side Road, (Derby Arms) Junction

15.150 RAG points out that an inbound vehicle would have to undertake a particular sharp manoeuvre to negotiate this junction, as the right turn into Higham Side Road is about 120°. That may be so, and the manoeuvre would consequently have to be taken slowly. However, whilst it would put the vehicle into conflict with other traffic on Preston Road, visibility is good and there is no reason to prevent other vehicles from safely slowing down or stopping until the manoeuvre is completed (2.89, 2.90, 4.119 & 11.7).

15.151 RAG also considers that HGV's, making use of the passing place on Higham Side Road, would need to reverse before being able to turn left into Preston Road. However, the need for this manoeuvre would depend upon the part of the hard standing that is used. The junction mouth is sufficiently wide for a vehicle of the maximum length of an OGV2 to be able to pass a similar vehicle. It is only towards the rear of the Derby Arms that two HGVs could have difficulty in passing and there is sufficient distance for any vehicle waiting here, on the narrow strip of hard standing, to be able to position itself correctly to be able to turn left into Preston Road (4,120).

15.152 Whether this area of hard standing is highway land, as alleged by the Appellant and available for use by OGV2s needing to pass is debatable. Others disagreed, and it is clearly used at certain times as a car park for patrons of the Derby Arms. There was no definitive information before the Inquiry. I note the dispute about the ownership, its use as a car park and the commercial development proposals at the site, which would bring more activity and vehicles to the location. I am also aware of the recent non-injury accident that involved an agricultural vehicle turning over close to the junction. However, given the good visibility that exists at the critical locations, I am not persuaded that there would be any additional highway safety issue at this junction as a result of its use by vehicles visiting the appeal site (2.89, 7.2, 7.4 & 12.45).

Higham Side Road Bends

15.153 Shortly after the junction there is a tight 90° bend. Long HGVs are unable to pass when negotiating it. Two passing places are proposed where vehicles could wait. It is agreed that the forward visibility from both of them is acceptable. However, the road is at a lower level than the adjacent fields and drivers not in HGVs could not see over the hedge that sits above it at the time of the site visit. Unless regularly cut during the spring and summer then HGVs may also be unable to see over it. The Appellant's survey suggests that over 500 vehicles drive northwards each twelve-hour day at an average speed of 40mph and an 85% speed of 57mph. 55 cyclists also use the road each day during the same time period. Whilst the average speed would most likely be slower, as vehicles approached and prepared to negotiate the bend, some of

them would not necessarily see HGVs negotiating this bend. At the present time there are only 8 class 7-10 OGVs per twelve-hour day, if the appeal proposal is allowed there could be nearly 60 (4.121& 12.43).

15.154 There is no footpath, hardly any verge on the inside of the bend or, once the passing places were constructed, on the outside as well. Further down Higham Side Road there is a complex of commercial uses, including a pre-school play group and a snack bar. To what extent pedestrians walk to these from Inskip and around this bend is not known. There was no survey point between Inskip (a comparatively large centre of population) and beyond the main entrance to DHFCS Inskip (about 1.6Km). The Appellant points out that there is no evidence that anyone, let alone a parent with a child, walks there as it is some 800 metres from Inskip village. However, in the absence of a survey there is no evidence to base such a conclusion on. The Appellant's inference could be correct but then again it could be completely wrong. It is not unusual for persons without motorised transport to walk such a distance or indeed those with it wanting exercise. There is only one public footpath leading from Inskip village and circular walks/runs consequently inevitably require the use of a road at some point. The snack bar would be a good destination for a walk from Inskip. However, we simply do not know the number of pedestrians because the Appellant chose not to survey this stretch of road. The absence of the information at the very least calls for caution (2.91, 4.121 & 12.45).

15.155 The rest of Higham Side Road, apart from a shallow bend that is close to the one referred to above and where a passing place is proposed, is relatively straight. There are a number of lengths where two HGVs cannot easily pass but three passing places are proposed and there is good visibility. Even if drivers miscalculate the locations of the pinch points in relation to the passing points and have to reverse, the visibility is such that the manoeuvre should be safe (4.122 & 4.123).

Red Route Conclusion

15.156 The Appellant's 2014 TA concluded its consideration of this route by saying *"this route may be less suitable for use by HGVs, primarily due to the accident history of the section between Elswick and Inskip. There have been accidents involving both a cyclist and an HGV. There is also a primary school on this section of the route which represents a potential increased hazard. There are a number of tight bends on the route that may cause HGVs to overrun the centreline; in particular, there is one bend which has restricted forward visibility due to a building on the apex of the bend. On balance, it is concluded that this route section should not be used by site HGV traffic"* (3.25 & 3.27),

15.157 I endorse these conclusions and am not satisfied that in the context of the exponential increase in large articulated HGVs, which would use this route if it were to be an access to the appeal site, the proposed mitigation, as now put forward by the Appellant, is sufficient. However, in the context of the blind bend in Inskip it is difficult to visualise what could easily be brought forward to overcome the safety risks. In the absence of satisfactory mitigation measures I am unable to find that the use of the RR as a preferred route would represent a safe and sustainable approach. The proposed development could have a serious and very significant adverse impact on the safety of people using this part of the public highway (4,124).

Other Considerations

Protests

15.158 There has been significant public protest at PNR causing disruption to vehicular access to the site. Much of this has been lawful. LCC considers that there is every reason to expect the same will occur at RW and that the Appellant's contrary statements are wrong. Protest will only wane if and when the industry can demonstrate that the operations can be conducted in a safe manner without environmental harm. LCC further considers that protest activity at RW would again focus on disrupting the movement of vehicles on the public highway, introducing significant pedestrian activity onto narrow unsuitable roads. This would bring its own highway safety issues (12.17).

15.159 Along with others, Lancashire Constabulary is equally concerned about the safety implications of public protest at RW. It has expressed its concerns "*about the safety implications that will arise due to the presence of protestors in narrow country lanes where there is no pavement in close proximity to vehicles*". LCC also points out that the characteristics of the accesses to RW are completely different to those at PNR and that the absence of reported injury accidents involving protestors at PNR does not support the Appellant's thinking that the same would necessarily apply at RW. It considers protester safety to be another cumulative risk which counts against the development (6.8, 12.17).

15.160 The Appellant points out that each of the concerns raised by the police have been complied with. As a result, the proposed hour's condition reflects the hours that the police sought and another allows for 9 out of hours convoys to be used in special circumstances. It also emphasises that a TMP has to be in place and agreed with LCC so that the latter is in complete control (4.141-4.143).

15.161 Protest activity would be likely to impact upon the operation of the TMP. At PNR it has already gone through eleven iterations and despite the context of a primary highway route with direct links to a motorway, protest activity has resulted in about 190 instances, in little more than a year, in which HGVs have entered or left the site other than in the preferred manner of working. LCC consider this demonstrates that whatever is advanced and agreed in a TMP may be forced to yield to other pressures that manifest themselves once development commences and leading to outcomes that were not anticipated. In defence of the large number of deviations from the TMP the Appellant said that nearly all of them were at the request of the police in the context of protestor activity. However, this tends to confirm LCC's fears (11.10).

15.162 The Appellant refers to the alternative routes and the flexibility in operation that these would bring, but it also agrees that the appeal could not be allowed on the basis of only one route being used. However, as the B & RRs both begin or end with a drive across DHFCS Inskip and the G & RRs both begin or end along the B5269 between Elswick and Thistleton, the revised proposal is not as flexible or as robust to protestor activity as it might at first glance appear to be. Whilst recognising that protestors could block passing places, the Appellant expects the police to remove the vehicles and LCC to introduce TROs if the disruption is persistent. Others stressed the resource implications of this (12.52 & 12.53).

15.163 The Appellant says that if protest activity is disrupting vehicle movements then, as at PNR, visiting vehicles will be parked well beyond the rural road network until it is convenient to bring them to the site. Others disagree and envisage vehicles parking on the B5269. The evidence to date at PNR suggests that this would not be the case. I can see no reason why the same waiting areas as used by vehicles visiting PNR could not also be used by those visiting RW (2.103 & 4.125).

15.164 It seems to me that there can be no guarantee that there will not be numerous deviations from and breaches of a RW TMP. It is also possible that protestors could at times block parts of each route. The Appellant has said that if only one route is available, for whatever reason, on a particular day, vehicles would be managed and that if that situation prevailed for more than five consecutive working days, then the terms of the TMP and planning conditions would require the operation to stop. It has however, also referred to the contrary instances at PNR as deviations under police instruction. In this context it does not consider them to be breaches of the TMP or planning conditions. Nevertheless, they would still be movements contrary to the TMP and planning conditions and if PNR is a guide they would be numerous (3.48).

Economic Disbenefits

15.165 This and the next matter were considered at the last Inquiry in the context of the BR. The introduction of two additional routes has brought it to the fore again. Unlike the BR north of Clifton, which passes few points of habitation, the G & RRs pass through villages with sizeable populations. As well as the amenity considerations there would also be greater economic impacts (SV).

15.166 RAG demonstrated that the area was a rural tourism destination (RAG 3/1, 3/3 & 3/6) and that the continual presence of HGVs would discourage visitors, including cyclists, who use the catering facilities and the farm shops. Whatever the extent of the use of these roads by equestrians actually is, it is very likely that the presence of significantly more OGV2s on the roads would discourage riders from using the roads and from stabling their horses in the area (4.146).

15.167 In addition, there are many other small rural businesses such as caravan sites and B&Bs whose economic viability would be affected if the presence of additional OGV2s discouraged people from visiting the area. In comparison to the effects on the BR there would be additional adverse economic impacts on local business if the G & RRs were to be used by HGVs visiting the appeal site (4.147).

Community Recreation and Amenity Issues

15.168 In addition, the use of the R & GRs would impact on many more local residents, some of whom would be intimidated by the continual presence of large articulated vehicles on their narrow village streets. There is clearly a sense of community in these villages (RAG 3/1, 3/4, 3/5 & 3/7). Community activity in Elswick successfully cultivates flower beds alongside the GR & RR. The village has recently twice won Britain in Bloom national competitions. The flower beds are partly planted and maintained from the carriageway. Without partial road closures and disruption to the Appellant's vehicular movements, it is difficult to envisage this successful community activity continuing in a safe manner if the G & RRs are to be used for a number of years by significant numbers of OGV2s (4.144-4.145, 4.148-4.150, 5.7 & 12.51).

15.169 Reference was also made to the implications of extra HGVs on air pollution, particularly along the A583/A585(T) corridor where levels already exceed the maximum allowable limits in a number of locations. Concerns were also expressed about added congestion along these routes as a result of the extra HGV traffic, the implications for residents who live close to them and the ramifications of the use of other less suitable roads, particularly through Kirkham and Wesham at times of heavy congestion along parts of the primary network (6.7, **7**, **8**, 12.36, 12.5).

Overall Conclusion

15.170 In deciding to give the Appellant and other parties the opportunity to provide additional evidence on the safety issues and to demonstrate that proposed mitigation would be workable in practice, the SoS must have considered that the safety concerns expressed by the previous Inspector might be capable of resolution through appropriate mitigation. In as far as the BR is concerned I tend to agree. However, in my judgement the mitigation advanced by the Appellant falls far short of that which would be necessary to make this route safe for use by the type and number of additional HGVs that would result if the appeal were to be allowed.

15.171 In particular, the Appellant has offered no mitigation to overcome some of the specific concerns raised by the previous Inspector and endorsed by the SoS. Where it has advanced mitigation proposals, such as along Dagger Road, it has not demonstrated that all of that mitigation would be workable in practice.

15.172 The same criticisms apply to the GR & RR with the added criticisms of inadequate equestrian and pedestrian surveys along critical parts of these routes. Furthermore, there are potential hazards on both of these routes that the Appellant previously acknowledged and where no meaningful mitigation is put forward. Indeed, mitigation to satisfactorily resolve the safety issues associated with these hazards may not be implementable. I therefore consider, on the evidence before me that the use of the G & RRs by vehicles visiting the appeal site would also be inappropriate.

15.173 Overall, I conclude that in the absence of satisfactory mitigation measures, the preferred means of accessing the appeal site by HGVs cannot be considered to represent a safe and sustainable approach. The risks identified that would cause demonstrable harm have not been eliminated or reduced to acceptable levels by the mitigation proposed. The Development would not therefore be in accordance with JLMW Policy DM2. Safe and suitable access to the site would not be achieved and significant impacts from the development on highway safety would not be mitigated to an acceptable degree. There would be an unacceptable impact on highway safety and the proposal would be contrary to paras. 108 and 109 of the Framework.

Planning Conditions

15.174 In the event that irrespective of my findings, the SoS is nevertheless mindful to allow this appeal I have set out a list of conditions that I would recommend related to the highway matters and the two other conditions that the parties wish to change (3 and 47). I summarise the positions between the parties at the close of the Inquiry in paras. 14.1-14.7. The agreed positions are set out in CD 12.1. In paras. 14.3 and 14.4 above, I set out the conditions that all the parties are largely agreed on and I do not discuss them further.

15.175 RAG suggested a new condition (7A1) to limit the use of any one route on a particular day to one direction only. However, providing the agreed number of daily movements (50, condition 7A) is adhered to and no development HGVs pass in opposing directions on any of the routes (condition 8D, see para. 15.178 below), no purpose would be served by such a condition. Whilst LCC suggest that such a condition would not be enforceable, given that vehicle tagging is to be required through the TMP, there would clearly be an ability to track which Cuadrilla vehicles are using which routes and when. Without the tagging then a number of other conditions would not be enforceable.

15.176 Condition 7B prevents Cuadrilla vehicles from passing through the village of Wharles. GwTPC raised environmental and living conditions concerns in relation to vehicles from the R & GRs travelling through the village of Thistleton at times when there is congestion at the A585(T)/B5269 junction. RAG also raised this in discussing conditions. Whilst the condition could only apply to vehicles visiting the appeal site, it seems to me that the likelihood of such vehicles leaving the R & GRs and travelling through Thistleton, rather than using the A585(T)/B5269 junction, is at least as real as such vehicles using the B & RRs passing through Wharles rather than through DHFCS Inskip. I therefore consider the inclusion of Thistleton in the condition to be justified.

15.177 RAG considers that revised condition 7C should also refer to condition 7B. I agree. Without ANPR or an alternative vehicle monitoring system being agreed and being used, then condition 7B, as well as the other conditions referred to in condition 7C could not be enforced.

15.178 Returning to RAG's proposition that no two routes should be used simultaneously. I agree that condition 8D should be extended to limit the use of the G and RRs along the B5269 between the A585(T) and Roseacre Road by vehicles visiting the appeal site to one direction at any particular period of time. Such a condition would prevent OGV2s visiting the appeal site from passing one another on the parts of this road where they need to utilise both carriageways. If the vehicles did not meet, then there would be a reduced possibility of one or both of them having to reverse in some of the risk averse locations. If properly managed through forward planning and the use of the technology that the Appellant claims is available to monitor vehicle location, such a condition should not disrupt operations at the appeal site unduly.

15.179 Condition 12B1 is proposed by LCC. It had previously suggested a more comprehensive condition that would bring matters relating to improvement works to the highway under one condition. Although the Appellant disagreed on the ground of confusion, I can see merit in LCC's suggestion, particularly if the other conditions are rationalised to remove reference to the matters covered by the proposed new condition. However, no rewording of the other conditions was suggested. I nevertheless agree with LCC that despite its omission by the Appellant in its mitigation proposals, were this scheme to go ahead then there would be significant benefits to highway safety if a scheme of signage that warned other road users of the potential hazards, such as at blind bends or junctions, was implemented. I therefore would recommend condition 12B1.

15.180 RAG has concerns about the use of the red route immediately after 09:00 and before 15:00, in connection with the school day at Inskip Primary School and has suggested that condition 12C be amended so that the red route would only be used between 09:30 and 14:30. However, as worded the condition restricts the use of all of the RR between 09:00 and 15:00 not just the stretch outside of the school. Given the school's location, in the context of the extent of the RR, compliance with the condition would already prevent vehicles visiting the appeal site from passing Inskip Primary School for some time after and before the stated times, because vehicles would have to drive from the appeal site or from Elswick before reaching the site after the stated times. I do not consider a change as proposed to be justified.

15.181 RAG does not see the necessity to allow HGVs to access the site outside of the operational hours stated in condition 12C, as provided for in condition 12D. However, the experience at PNR has suggested that there are occasional emergency situations

and that these may not be related to the availability of one of the three access routes. An emergency could be related to the on-site operations. Given the permitted frequency, up to 9 times in more than 6 years, the proposed condition would not lead to meaningful harm to the living conditions of persons residing at properties along the routes and in the circumstances, I consider it to be reasonable.

15.182 Condition 12F says that '*None of the HGV Routes shall be exempted from the provisions of S59 of the Highways Act 1980*'. S59 concerns the recovery of expenses associated with highway maintenance, due to their use by extraordinary traffic, by Highway Authorities. Some of the traffic visiting the appeal site is likely to be extraordinary in the context of the roads being used and there could be abnormal damage to the highway from such vehicles. However, LCC's powers under the Act, in respect of highway damage by such vehicles, are perfectly clear and do not require reinforcement through a planning condition.

15.183 RAG is concerned that as drafted there is confusion as to whether works to the access road includes the works at DHFCS Inskip. A specific reference within section 'a' of condition 3 would clarify this and remove any doubt.

15.184 I have considered the suggested conditions in the context of the tests set out in paras. 54 and 55 of the NPPF and the advice in the NPPG concerning the use of planning conditions and consider them all to be compliant.

Melvyn Middleton

INSPECTOR

APPENDIX

Schedule of Suggested Conditions

Highway Matters

- 7A) There shall be no more than 50 two-way HGV movements in total to and from the exploration site (25 in / 25 out) on any day for the duration of the development.
- 7B) HGVs travelling to and from the exploration site shall not pass through Thistleton (other than along the B5268) or through Wharles at any time.
- 7C) No part of the development hereby approved shall commence until a traffic monitoring scheme has been implemented in accordance with details to be first submitted to, and approved in writing by, the County Planning Authority. The traffic monitoring scheme shall provide for:
- a) the use of Automatic Number Plate Recognition (ANPR), or an alternative vehicle monitoring system agreed with the County Planning Authority, to monitor compliance with the restriction on HGV movements in Conditions 7A 7B and 8D, the HGV Hours in Condition 12C and the use of the HGV Routes in accordance with the Traffic Management Plan approved pursuant to Condition 10; and
 - b) the reporting of the traffic information collected pursuant to this Condition 7C to the County Planning Authority in a format and frequency to be agreed with the County Planning Authority.

The approved traffic monitoring scheme shall be maintained throughout the duration of the development.

- 8A) No part of the development hereby approved shall commence until a scheme of access improvements has been submitted to, and approved in writing by, the County Planning Authority. The scheme shall include details of:
- a) the construction of the exploration site access works to Roseacre Road; and
 - b) the construction of the access works to the Ministry of Defence's DHFCS Inskip facility from Roseacre Road and Inskip Road and the improvement of the internal access road within that facility, including details of road widths to be provided and surfacing details.

The exploration site access works to Roseacre Road and the access works to the Ministry of Defence's DHFCS Inskip facility shall thereafter be completed in accordance with the approved scheme prior to the commencement of development.

-
- 8B The internal access road in the Ministry of Defence's DHFCS Inskip facility shall be used as part of the access to and egress from the exploration site by HGVs when using the Blue Route or the Red Route throughout all phases of the development specified in condition 3 above, except for:
- a) during the extended flow testing phase;
 - or
 - b) in the case of access to the Ministry of Defence's DHFCS Inskip facility being restricted due to it being inaccessible for reasons of flooding or in a national security emergency, in which case the Green Route shall be used.
- 8C No single route shall be used as the sole means of HGVs accessing or egressing the exploration site for more than five consecutive working days, except for during the extended flow testing phase.
- 8D No two development HGVs shall pass in opposing directions on any of the routes.
- 9A Measures to the reasonable satisfaction of the County Planning Authority shall be taken at all times throughout the duration of the development to ensure that no dust, mud or other deleterious material is deposited on the public highway by HGVs leaving the site to the extent that it would, in the County Planning Authority's reasonable opinion, result in harm to highway safety. The measures shall include as appropriate surfacing of internal roads, employment of temporary surfacing, jet washing of vehicle wheels or employment of wheel cleaning facilities. The above measures shall be employed at the egress from the site onto Roseacre Road.
- 9B No part of the development hereby approved shall commence until:
- a) a scheme for the construction of the passing places on each of the three HGV Routes has been submitted to, and approved in writing by, the County Planning Authority, such scheme to be substantially in accordance with the Passing Places Drawings and contain details of (i) the location and dimensions of each of the passing places; (ii) construction details including surfacing; and (iii) signage and road markings to indicate the location of passing places;
 - and
 - b) the passing places have been constructed in accordance with the approved details and made available for use.
- The passing places shall thereafter be maintained for the duration of the project.
- 10 All phases of the development shall be carried out in accordance with the Traffic Management Plan (being the version dated 24 April 2018 or such revised Traffic Management Plan as may be approved in writing by the County Planning Authority). The Traffic Management Plan shall include vehicle routing to and from

the exploration site, traffic management measures, times of access to and egress from the exploration site and emergency procedures on and off site.

- 12A No part of the development hereby approved shall commence until details of the traffic signal scheme on Dagger Road has been submitted to, and approved in writing by, the County Planning Authority. The details shall include the traffic signal specification, means of construction, signage, road markings, inspection and maintenance. The traffic signal scheme shall be constructed in accordance with the approved details and made available for use prior to the use of the Blue Route. The Blue Route will not be used in the event that a fault with the traffic signals is detected. In such circumstances the fault shall be investigated and repaired as soon as reasonably possible.

Upon completion of the restoration of the site, the traffic signal scheme (with the exception of any underground wiring) shall be removed and the affected land reinstated to highway verge.

- 12B No part of the development hereby approved shall commence until a scheme for surveys of highway conditions of the HGV Routes has been submitted to, and approved in writing by, the County Planning Authority. The scheme shall provide for surveys to be undertaken to establish the pre-commencement condition of the highway and at the end of each phase of the development listed in Condition 3. All surveys shall be evidenced based with photographs taken of any existing areas of wear or damage and shall include the state of the carriageway, verges and hedgerows along the HGV Routes. The surveys shall thereafter be carried out in accordance with the approved scheme and the results of the surveys submitted to the County Planning Authority in accordance with the timescales set in the approved scheme.

- 12B1 No development shall commence until highway signage for the three HGV Routes has been erected in accordance with a scheme and programme to be first submitted to and approved in writing by the County Planning Authority. The scheme shall include information on the design and location of signage.

The approved highway signs shall be retained in their approved locations throughout the duration of the development.

- 12C Subject to Condition 12D, the following hours of working shall apply to the development¹⁵⁵:

Activity	Permitted hours of work
Hours of operation by HGVs	Access and egress of the exploration site by HGVs shall be permitted between the following hours:

¹⁵⁵ Conditions 12D and 12E are intended to replace Condition 18

Activity	Permitted hours of work
	<ul style="list-style-type: none"> • 07:30 to 16:30 February – October (inclusive) • 08:00 to 16:00 November – January (inclusive) <p>Notwithstanding the above, during school term time at Inskip Primary School, the Red Route shall only be used between 09:00 to 15:00</p> <p>HGVs will not be permitted to access or egress the exploration site on a Saturday, Sunday or public holiday, except in an Operational Emergency and agreed in advance with Lancashire Police</p> <p>The hours set out above are the 'HGV Hours'</p>
<ul style="list-style-type: none"> • Construction of the site access and compound • Installation of the interconnections to the national gas and water grids 	<p>07.30 to 18.30 hours Mondays to Fridays (except Public Holidays)</p> <p>08.30 to 12.00 hours on Saturdays (except Public Holidays) Not permitted Sundays or Public Holidays</p>
<ul style="list-style-type: none"> • Drilling boreholes and operational management of drilling and extended flow testing • Well operations • Flowback and testing operations (including those involving pumping equipment) but excluding hydraulic fracturing pumping operations • Carrying out essential repairs to plant and equipment used on site 	<p>24 hours / 7 days a week</p>
<ul style="list-style-type: none"> • Pumping associated with hydraulic fracturing operations 	<p>08.00 to 18:00 Mondays to Fridays</p> <p>09:00 to 13.00 hours on Saturdays</p> <p>Not permitted Sundays or Public</p>

Activity	Permitted hours of work
	Holidays

12D Notwithstanding the provisions of Condition 12C, HGVs may also access and egress the exploration site outside the HGV Hours on Mondays to Fridays (except for public holidays) provided that the instances of access and egress outside of the HGV Hours do not exceed 9 occurrences (as defined below) over the duration of the development.

For the purposes of this condition, one 'occurrence' shall be any one period between:

- 16:31 to 07:29 February – October (inclusive) for the Green Route, the Blue Route and during school term time the Red Route;
- 16:01 to 07:59 November – January (inclusive) for the Green Route and the Blue Route and during school term time the Red Route;

and

- 17:01 to 07:29 for the Red Route during school term time,

when HGVs access and egress the exploration site for the purpose of delivering or picking up plant, equipment or materials.

The following conditions shall apply during any occurrence of HGV movements outside of HGV Hours:

No HGVs shall be loaded or unloaded on the exploration site access road.

Not less than 24 hours' notice in writing shall be given to the County Planning Authority of the intention to utilise the extended hours.

All HGV movements undertaken under the provisions of this Condition 12D shall be managed in accordance with the Traffic Management Plan approved under the provisions of Condition 10 above.

12E No part of the development hereby approved shall commence until a scheme for the improvement works to the B5269 Thistleton Road junction with the A585 trunk road has been submitted to and approved in writing by the County Planning Authority in consultation with Highways England and the approved scheme has been constructed. The scheme shall include:

- a) final details of how the scheme interfaces with the existing highway

alignment;

- b) full carriageway surfacing and carriageway marking details;
- c) full construction details;
- d) confirmation of compliance with current departmental standards (as set out in the Design Manual for Roads and Bridges) and policies (or approved relaxations/departures from standards);

and

- e) an independent Stage 1 & Stage 2 Road Safety Audit, carried out in accordance with current departmental standards and current advice notes¹⁵⁶.

12G No part of the development hereby approved shall commence until a Construction Method Statement for the construction phase of the development has been submitted to, and approved in writing, by the County Planning Authority. The Statement shall provide for:

- a. The location of parking of all vehicles of site operatives and visitors (on the exploration site);
- b. The erection and maintenance of security and noise fencing;

and

- c. A scheme for recycling/disposing of waste resulting from construction work (there shall be no burning waste on the exploration site during the construction phase).

The approved Construction Method Statement shall be adhered to throughout the site construction phase of the development¹⁵⁴.

Other conditions

Working Programme

- 3 Written notification of each of the following phases of the development shall be provided to the County Planning Authority within 7 days prior to commencement

¹⁵⁶ Conditions 12E and 12F are included at the request of Highways England

and within 7 days after completion of:

- a. Construction of the site access and access road, including any necessary construction or improvement works to the access across DHFCS Inskip;
- b. Site construction;
- c. Drilling of each of the four exploration wells;
- d. Hydraulic fracturing of each of the exploration wells;
- e. Flaring of gas during the initial flow test of each well;
- f. Installation of the gas pipeline and connection to the national grid;
- g. Extended flow testing of each of the wells;
- h. Decommissioning of each of the wells;
- i. Decommissioning of the site operational compound including all the development incorporated in the land edged red on plan no. RW-EW-001 Exploration Works: Location Plan;
- j. Restoration of the site;

and

- k. Removal of the access road, reinstatement of the access to the original farm access dimensions and reinstatement of the adjoining hedgerows removed as part of the creation of the new access.

Community Liaison Group

- 47 Prior to the commencement of the development, a scheme detailing the establishment of a local liaison group shall be submitted to the County Planning Authority for approval in writing. Membership of the group shall include representation from the site operator and shall be open to the County Planning Authority, other regulators, the District Council, Treales, Roseacre and Wharles Parish Council, Newton with Clifton Parish Council, Inskip with Sowerby Parish Council and Elswick Parish Council, Thistleton with Greenhalgh Parish Council, Kirkham Town Council, Medlar with Wesham Town Council and local residents. The scheme shall include its objectives, membership, frequency and location of meetings and arrangements for the publication of minutes. Liaison group meetings shall be held in accordance with the approved scheme.

Definitions:

- 'HGV' means Heavy Goods Vehicle

- 'Green Route' means the route from the A585(T) to the exploration site via the B5269 Thistleton Road/Elswick High Street and Roseacre Road as shown marked in green in Figure 1 in the approved Traffic Management Plan
- 'Red Route' means the route from the A585(T) to the exploration site via the B5269 Thistleton Road/Elswick High Street/Lodge Lane/Preston Road and Higham Side Road and through the Ministry of Defence's DHFCS Inskip facility as shown marked in red in Figure 1 in the approved Traffic Management Plan
- 'Blue Route' means the route from the A583 to the exploration site via Lodge Lane, Clifton Lane, Station Road, Dagger Road, Salwick Road, Inskip Road and through the Ministry of Defence's DHFCS Inskip facility as shown marked in blue in Figure 1 in the approved Traffic Management Plan
- 'HGV Routes' means the Green Route, the Red Route and the Blue Route
- 'Passing Places Drawings' means:

Route	Highway Mitigation	Road	Vectos Drawing Reference
Green	PP1	Roseacre Road	172806/R/G04 Rev B
	PP2	Roseacre Road	172806/R/G05 Rev C
	PP3	Roseacre Road	172806/R/G06 Rev B
	PP4	Roseacre Road	172806/R/G06 Rev B
	PP5	Roseacre Road	172806/R/G06 Rev B
	PP6	Roseacre Road	172806/R/G07 Rev A
	PP7	Roseacre Road	172806/R/G07 Rev A
	PP8	Roseacre Road	172806/R/G07 Rev A
	PP9	Roseacre Road	172806/R/G07 Rev A
	PP10	Roseacre Road	172806/R/G07 Rev A
	PP11	Roseacre Road	172806/R/G07 Rev A
	PP12	Roseacre Road	172806/R/G07 Rev A
	PP13	Roseacre Road	172806/R/G07 Rev A
	PP14	Roseacre Road	172806/R/G07 Rev A

	PP15	Roseacre Road	172806/R/G08 Rev A
	PP16	Roseacre Road	172806/R/G09 Rev A
Red	PP1	Lodge Lane / Preston Rd	172806/R/R06 Rev A
	PP2	Preston Road	172806/R/R07 Rev A
	PP3	Preston Road	172806/R/R07 Rev A
	PP4	Preston Road	172806/R/R07 Rev A
	PP5	Preston Road	172806/R/R07 Rev A
	PP6	Higham Side Road	172806/R/R10 Rev A
	PP7	Higham Side Road	172806/R/R10 Rev A
	PP8	Higham Side Road	172806/R/R10 Rev A
	PP9	Higham Side Road	172806/R/R10 Rev A
	PP10	Higham Side Road	172806/R/R11 Rev A
Blue	PP1	Dagger Road	172806/R/B10 Rev B
	PP2	Dagger Road	172806/R/B11 Rev F
	PP3	Dagger Road	172806/R/B11 Rev F
	PP4	Salwick Road	172806/R/B13 Rev A
	PP5	Salwick Road	172806/R/B13 Rev A
	PP6	Salwick Road	172806/R/B13 Rev A
	PP7	Salwick Road	172806/R/B13 Rev A
	PP8	Salwick Road	172806/R/B13 Rev A
	PP9	Salwick Road	172806/R/B13 Rev A
	PP10	Salwick Road	172806/R/B13 Rev A
	PP11	Salwick Road	172806/R/B13 Rev A

- 'Operational Emergency' means a serious risk to personal safety or environmental harm

APPEARANCES

FOR THE LOCAL PLANNING AUTHORITY:

Alan Evans of Counsel

Instructed by Jill Anderson, Senior Solicitor,
Legal and Democratic Services, Lancashire
County Council

He called
Neil Stevens MSc

Highways Development Support Manager,
Lancashire County Council

FOR THE APPELLANT:

Nathalie Lieven Queens Counsel

Instructed by Charlotte Dyer of Herbert
Smith Freehills LLP

She called
David Bird MICE
Mark Lappin

Vectos
Cuadrilla Resources Ltd

FOR ROSEACRE AWARENESS GROUP

Ben du Feu of Counsel

Instructed by Harry Campbell of Harrison
Grant Solicitors

He called
Barbara Richardson
Thomas Hastey MIRTE

Local resident
Local resident (retired Transport Operations
Director)
Transport Policy Advisor

Gerald Kells

FOR OTHER INTERESTED ORGANISATIONS

Elswick Parish Council

Represented by Cllr Paul Hayhurst

Greenhalgh with Thistleton Parish Council

Represented by Cllr Richard Nulty

Inskip with Sowerby Parish Council

Represented by Cllr Carol Berry

Kirkham Town Council

Represented by Cllr Miranda Cox

Medlar with Wesham Town Council

Represented by Cllr Linda Nulty

Newton with Clifton Parish Council

Represented by Cllr Peter Collins

BAE Warton Commuter Cyclists

Represented by Jon Howson

Dagger Road Equestrians

Represented by Vicki Cookson

Elswick Equestrians

Represented by Annabelle Hassell

Frack Free Fylde

Represented by Gayzer Frackman

Friends of the Earth

Represented by Pollyanna Steiner

Inskip Baptist Church

Represented by Neil Lewis

Java Café Bar Cyclists

Represented by Edward Cook

St Peters School Inskip, Board of Governors

Represented by Paul Houghton

Singleton Against a Fracked Environment

Represented by Chris Cannon
Karen Ditchfield
David Rimmer

Stanley Mews Roseacre

Represented by Chris Maguire

OTHER INTERESTED PERSONS:

The list includes the individuals who spoke on behalf of organisations. All statements not from the three main parties are referenced according to the session that the participant was programmed to attend and the order in which they were expected to present their evidence (two spoke out of order).

SESSION ONE Wednesday 18 April 2018 at 3:30pm until 5pm			
	Participant	Community	Comments
1	Gillian Cookson	Roseacre	
2	Barry Warner	Roseacre	
3	Elizabeth Warner	Roseacre	
4	Barbara Hurton	Roseacre	
5	Roger Hurton	Roseacre	
6	Christopher Noad	Roseacre	
7	Jill H Walton	Inskip	
8	Chris Wyatt	All	from Freckleton
9	John Bailie		
10	Maureen Mills	All	
SESSION TWO Wednesday 18 April at 18:30pm until 9pm			
	Participant	Community	Comment
1	Peter Collins	Clifton	NwCPC
2	John Hannan	Clifton	
3	Chris Salmon	Clifton	
4	Sally Livesey	Inskip	
5	Paul Houghton	Inskip	Governors of Inskip St Peter's Church of England School
6	Carol Berry	Inskip	IwSPC
7	Cheryl Gilbertson	Roseacre	
8	Roy Harrison	Roseacre	
9	Ruth Turner	Roseacre	From Wharles
10	Anne Broughton	Roseacre	
11	Tina Rothery	All	
13	Edward Cook	All	Java Café Cyclists
14	Heather Speak	All	Spoke at session 1
15	Jane Barnes	Roseacre	
16	Jon Howson	All	BAE Warton Cyclists

SLOT THREE

Thursday 19th April at 1pm until 5pm

ID	Participant	Community	Comments
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SESSION THREE Thursday 19th April at 1pm until 5pm			
	Participant	Community	Comments
1	Richard Nulty	Greenhalgh	GwTPC
2	Linda Nulty	Wesham	MwWPC
3	Miranda Cox	Kirkham	KTC
4	Elaine Silverwood	Kirkham	
5	Keith Hulme	Roseacre	
8	Brian Leighton	Inskip	
9	Neil Lewis	Inskip	Inskip Baptist Church
10	Phil James	Inskip	
11	Jo Bignold	Clifton	
12	Jacqueline Sylvester	Roseacre	
13	Jules Burton	Roseacre	
14	Rosemary Conlon	Roseacre	
15	County Cllr Liz Oades	Roseacre	
16	Sean Smith	Roseacre	
18	Claire Nash	All	
19	Jean Stringman	All	
20	Polly Steiner (FoE)	All	North West Friends of the Earth
21	Nick Danby	All	Spoke at session 1
SESSION FOUR Thursday 19th April at 6.30pm until 8pm			
	Participant	Community	Comments
1	Ian Speight	Inskip	
2	David Rimmer	Singleton	Singleton Against Fracked Environment a
3	Chris Cannon*	Singleton	Singleton Against Fracked Environment a
4	Karen Ditchfield*	Singleton	Singleton Against Fracked Environment a
5	Michael Smith	Singleton	Michael Smith
6	Elaine Smith	Roseacre	Elaine Smith
7	Gordon Smith	Roseacre	Gordon Smith
8	Angela Livesey	Roseacre	Angela Livesey
9	Cllr Heather Speak	Roseacre	
10	Carole Worthington	Roseacre	
11	Chris Maguire	Roseacre	Stanley Mews
12	Robert Sanderson	Roseacre	
13	Dr Duncan Coppersthwaite	Kirkham	

14	Stephen Hunter	All	
15	Nick Caunt		
16	Vicki Cookson	All	Dagger Road Equestrians

*Chris Cannon and Karen Ditchfield made a joint presentation

SESSION FIVE Tuesday 24 April at 2:00pm until 5pm			
	Party	Community	Comment
1	Ian Phillips	Elswick	
2	Martin Clayden	Elswick	
3	Sarah Clayden	Elswick	
4	Albert Risely	Elswick	
5	Kathryn Risley	Elswick	
6	Annabelle Hassall	Elswick	Elswick Equestrians
7	Trevor Loftus	Elswick	
8	Andy Biggs	Elswick	
9	Jean Fairbank	Elswick	From Wharles
10	David Galvin	Elswick	
11	Simon Mills	Elswick	
12	Karen Taylor	Elswick	
13	Jim Beaumont	Elswick	
14	Paul Hayhurst	Elswick	EPC
15	Mike Hill	All	
16	Geza Tarjanyi	All	Frack Free Fylde

PLANS

- A Site location plan, Drawing ref RW-EW-001(CD 3.1)
- B Inskip DHFCS Route, Drawing ref RW-EW-002 (CD 3.2)
- C Proposed Green Route with Passing Place Locations, Drawing ref 172806/R/G11 (CD 6.1)
- D Proposed Red Route with Passing Place Locations, Drawing ref 172806/R/R12 (CD 6.1)
- E Proposed Blue Route with Passing Place Locations, Drawing ref 172806/R/B15 (CD 6.1)
- F Typical Passing Place Layout, Drawing 172806/A/01 (CD 6.1)
- G Dagger Road, Signal Controlled section,
- H Drawing 172806/R/B12 (CD 6.1)

DOCUMENTS

Documents Reference	Name of Document	Date of document if submitted after 13/3/18
INQUIRY DOCUMENTS from The Inspector		
INSP/1	Guidance for Third Parties	April 2018
INSP/2	Principal matters to be discussed	9 April 2018
INSP/3	Response to letter from RAG about the Inspector's second and third accompanied site visits	17 July 2018
INSP/4	Consultation on the revised National Planning Policy Framework	1 August 2018
INSP/5	Further consultation on the revised National Planning Policy Framework, with reference to paragraph 109	28 August 2018
Cuadrilla Elswick Limited (CE)		
Reference	Document	
CE/1/1	Proof of Evidence from David Bird on Highway Issues	
CE/1/2	Appendices to the Proof of Evidence from David Bird on Highway Issues	
CE/1/2 App A	Green Route Photos	
CE/1/2 App B	Red Route Photos	
CE/1/2 App C	Blue Route Photos	
CE/1/2 App D	Revised Indicative Roseacre Programme	
CE/1/2 App E	Summary of Consulting Engineering Exercise Construction Calculations	
CE/1/2 App F	HGV Route Options Assessed	
CE/1/2 App G	Green Route HGV Route Assessment	
CE/1/2 App H	Red Route HGV Route Assessment	
CE/1/2 App I	Blue Route HGV Assessment	
CE/1/2 App J	A585(T)/Thistleton Road Assessment	
CE/1/2 App K	Committed Development Locations	
CE/1/2 App L	Review of Consultation Responses	
CE/1/2 Figures	Figures 1-7	
CE/1/3	Summary to the Proof of Evidence from David Bird on Highway Issues	
CE1/4	David Bird Rebuttal Text	
CE1/5	David Bird Rebuttal Appendices	
CE/2/1	Rebuttal Proof of Evidence from Mark Lappin	27 March 2018
CE/2/2	Appendices to the Rebuttal Proof of Evidence from Mark Lappin	27 March 2018
INQUIRY DOCUMENTS from Cuadrilla Elswick		
CE/INQ/001	Opening Statement of Cuadrilla	10 April 2018
CE/INQ/002	Treales Road Vehicle Speeds	10 April 2018
CE/INQ/003	Drawing 172806/R/R17 - Red Route	10 April 2018

Documents Reference	Name of Document	Date of document if submitted after 13/3/18
	Preston Road / Higham Side Road Junction	
CE/INQ/004	Drawing SK/27 - Salwick Road / Inskip Road	11 April 2018
CE/INQ/005	Extract from Manual For Streets 2	11 April 2018
CE/INQ/006	Drawing B24 - Blue Route - Station Road / Dagger Road	11 April 2018
CE/INQ/007	Extract from Appendix B of document CUA/4/2	12 April 2018
CE/INQ/008	Photos of Moss Lane	12 April 2018
CE/INQ/009	Vulnerable User Data	18 April 2018
CE/INQ/010	Extract from Permeable Asphalt - Solution Guide	15 April 2018
CE/INQ/011	Environment Agency - Notice of variation and consolidation with introductory note. (variation application number EPR/AB3101MW/V004)	15 April 2018
CE/INQ/012	Breakdown of OGV2 data taken from CD 7.2	15 April 2018
CE/INQ/013	Weather during vulnerable user surveys	15 April 2018
CE/INQ/014	Extract from design manual for road and bridges	15 April 2018
CE/INQ/015	Note on site visit between Mr Stevens and Vectos	18 April 2018
CE/INQ/016	Surface water discharge permit note	18 April 2018
CE/INQ/017	Blue Route - Dagger Road - Traffic Signal and Ducting layout	18 April 2018
CE/INQ/018	Topographical survey of Inskip Road / Salwick Road Junction	19 April 2018
CE/INQ/019	Extract from standards for highways	18 April 2018
CE/INQ/020	Green route carriageways widths plan	18 April 2018
CE/INQ/021	Email correspondence between Vectos and RAG and an Ariel photograph of Roseacre	18 April 2018
CE/INQ/022	Updated Lodge Court plan	19 April 2018
CE/INQ/023	PNR site aerial photographs	19 April 2018
CE/INQ/024	MoD note	24 April 2018
CE/INQ/025	Supplier note	24 April 2018
CE/INQ/026	Response by Mr Bird to Mr Stevens' Note on Forward Visibility	24 April 2018
CE/INQ/027	Inskip bend tracking - Red Route	24 April 2018
CE/INQ/028	Design Manual for Roads and Bridges	24 April 2018
CE/INQ/029	HGV Routing App	24 April 2018
CE/INQ/030	2 x green route plans (showing PP4)	24 April 2018
CE/INQ/031	Photograph of Green Lane Tareyton	24 April 2018
CE/INQ/032	Cuadrilla's response to LCC/INQ/010	25 April 2018
CE/INQ/033	Response to Traffic Signals Representations	25 April 2018

Documents Reference	Name of Document	Date of document if submitted after 13/3/18
CE/INQ/034	Closing submissions on behalf of Cuadrilla	25 April 2018
CE/INQ/035	Draft Traffic Management Plan	24 April 2018
Post INQUIRY DOCUMENTS from Cuadrilla Elswick		
CE/POSTINQ/001	Draft Condition position at the close of the Inquiry	26 April 2018
CE/POSTINQ/002	Deed of Unilateral Undertaking	8 May 2018
CE/POSTINQ/003	Response to consultation on the revised National Planning Policy Framework	7 August 2018
CE/POSTINQ/04	Further response to consultation on the revised National Planning Policy Framework, with reference to paragraph 109	7 Sept 2018
Lancashire County Council (LCC)		
Reference	Document	
LCC/1/1	Proof of Evidence of Neil Stevens	
LCC/1/2	Highway Authority Statutory Consultee Comments (January 2018)	
LCC/1/3	Planning Committee Report (January 2018)	
LCC/1/4	Areas Susceptible to Surface Water Flooding	
LCC/1/5	Typical Vehicle Dimensions	
LCC/1/6	Route Specific Photographs	
LCC/1/7	Referenced Material	
LCC/1/8	Letter from Lancashire Constabulary	
LCC/1/9	Email from Lancashire Constabulary	
LCC/1/10	Safety Assessment for Roseacre Wood	
LCC/1/11	Email from Right to Ride representative, Cycling UK	
LCC/1/12	Cuadrilla 'Supporting Statement' to amend PNR Planning Condition 19	
LCC/1/13a	Letter from Samantha Harrison (Jan 2015)	
LCC/1/13b	Horse Survey Results (Jan 2015)	
LCC/1/14	Summary of Evidence – Mr N J Stevens	
INQUIRY DOCUMENTS from Lancashire County Council		
LCC/INQ/001	Note on cross examination of Mr Bird	10 April 2018
LCC/INQ/002	LCC Opening statement	10 April 2018
LCC/INQ/003	Note on number of right turn movements from Preston New Road Exploration Site	16 April
LCC/INQ/004	Dagger Road Traffic Signs Arrangement	17 April
LCC/INQ/005	Tarmacs Permeable Asphalt Document (page 6 – CE-INQ-010)	17 April
LCC/INQ/006	Hedges, the Law, Rules and Regulations - Briefing note from Natural England	
LCC/INQ/007	Forward visibility note by Neil Stevens	20 April 2018

Documents Reference	Name of Document	Date of document if submitted after 13/3/18
LCC/INQ/008	PROW Extract from Definitive Map – Blue Route	24 April 2018
LCC/INQ/009	PROW Extract from Definitive Map – Green/Red Route	24 April 2018
LCC/INQ/010	Number of right turn movements from PNR site	24 April 2018
LCC/INQ/011	Closing submissions	25 April 2018
POST INQUIRY DOCUMENTS from Lancashire County Council		
LCC/POSTINQ/001	Clarification on matters relating to passing places and the Dagger Road traffic lights	04 July 2018
LCC/POSTINQ/002	Response to consultation on the revised National Planning Policy Framework	15 August 2018
LCC/POST INQ/003	Further response to consultation on the revised National Planning Policy Framework, with reference to paragraph 109	11 Sept 2018
Roseacre Awareness Group (RAG) including Treales, Roseacre & Wharles Parish Council, Elswick Parish Council, Greenhalgh with Thistleton Parish Council, Inskip-with-Sowerby Parish Council, Kirkham Town Council, Medlar with Wesham Town Council & The Parish Council of Newton-with-Clifton		
Reference	Document	
RAG/1/1	Proof of Evidence of Tom Hastey on Transport and Road Safety	
RAG/1/6	Appendix 1 Transport and Road Safety	
RAG/1/2	Appendix 2 Red Route Assessment	
RAG/1/3	Appendix 3 Green Route Assessment	
RAG/1/4	Appendix 4 Blue Route Assessment	
RAG/1/5	Appendix 5 Wharles Route Assessment	
RAG/1/7	Evidence note from Tom Hastey	
RAG/2/1	Proof of Evidence by Gerald Kells - Transport	
RAG/2/2	Summary Proof of Evidence by Gerald Kells - Transport	
RAG/2/3	Appendices to Proof of Evidence by Gerald Kells - Transport	
RAG/2/4	Evidence note from Gerald Kells	
RAG/2/5	Addendum from Gerald Kells	26 March 2018
RAG/2/6	Rebuttal Proof of Evidence to David Bird	26 March 2018
RAG/3/1	Proof of evidence by Barbara Richardson - Community and vulnerable road users	
RAG/3/2	Summary of Proof of Evidence of Barbara Richardson – Community and vulnerable road users	
RAG/3/3	LCC DCC Presentation	
RAG/3/4	Affected communities	
RAG/3/5	Community facilities	
RAG/3/6	Local Business	

Documents Reference	Name of Document	Date of document if submitted after 13/3/18
RAG/3/7	Vulnerable Road Users	
RAG/3/8	Cycling	
RAG/3/9	Equestrian	
RAG/3/10	Sports clubs and events	
RAG/3/11	Accident data	
RAG/3/12	video	
RAG/3/13	Evidence note from Barbara Richardson	
INQUIRY DOCUMENTS from Roseacre Awareness Group		
RAG/INQ/001	RAG Opening statement	10 April 2018
RAG/INQ/002	Map identifying equestrian facilities within hacking distance of the proposed development.	18 April 2018
RAG/INQ/003	Crash Map Data for White House Lane Junction with the A586.	18 April 2018
RAG/INQ/004	Thistleton Conservation Appraisal and Management Statement	21 April 2018
RAG/INQ/005	Additional supporting photographs following site visit from Mr Hastey	24 April 2018
RAG/INQ/006	Photograph	24 April 2018
RAG/INQ/007	Letter from Mr Collins – additional observations (dated 22 April)	24 April 2018
RAG/INQ/008	Closing submissions from RAG	25 April 2018
POST INQUIRY DOCUMENTS from Roseacre Awareness Group		
RAG/POSTINQ/001	Letter about the Inspector's second and third accompanied site visits	01 August 2018
RAG/POSTINQ/002	Response to consultation on revised National Planning Policy Framework	14 August 2018
RAG/POSTINQ/003	Further response to consultation on the revised National Planning Policy Framework with reference to paragraph 109	11 Sept 2018