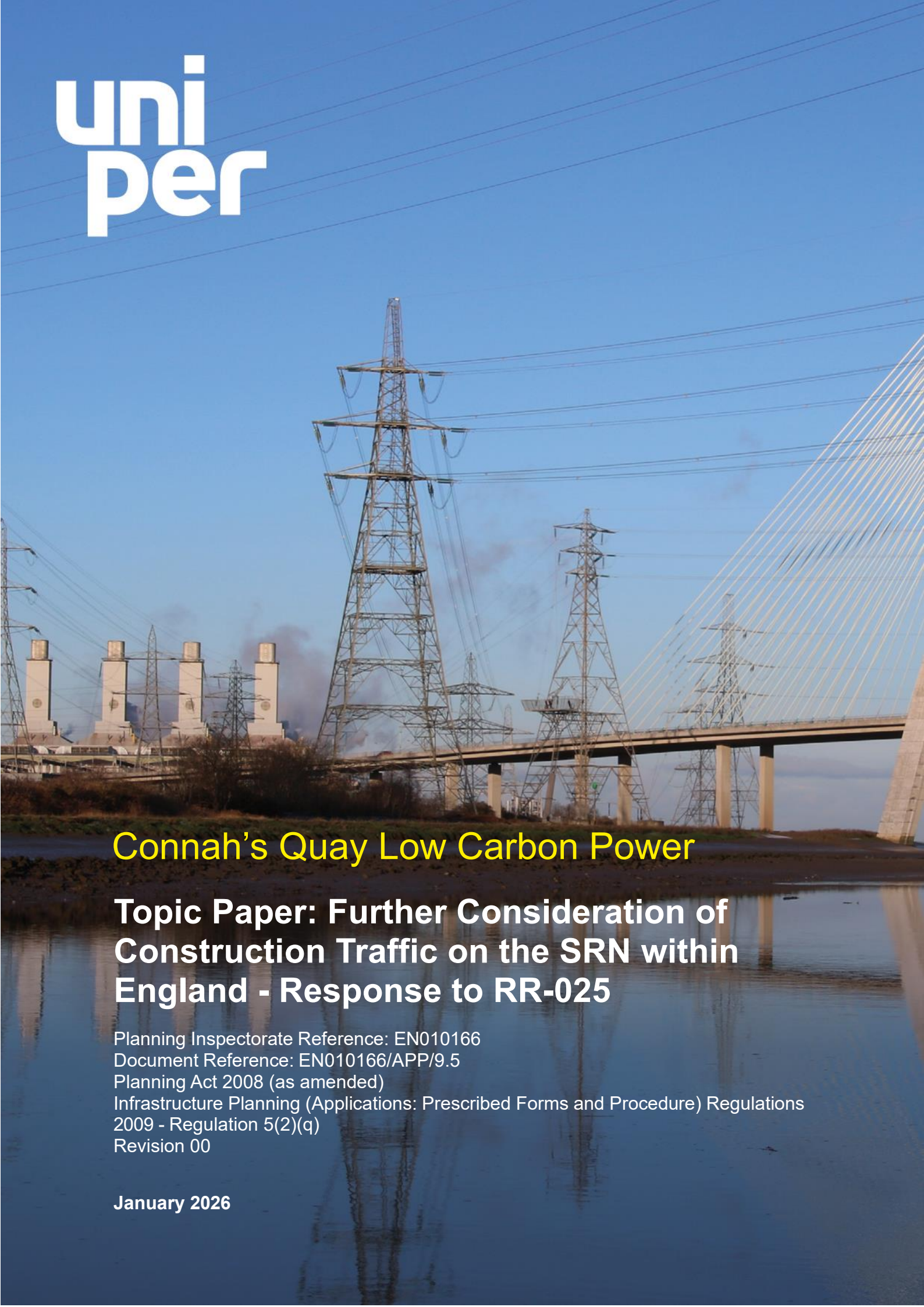

Connah's Quay Low Carbon Power

Topic Paper: Further Consideration of Construction Traffic on the SRN within England - Response to RR-025

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Revision 00

January 2026

Prepared for:
Uniper UK Limited

Prepared by:
AECOM Limited

Table of Contents

Tables

Plates

Figures

1. Introduction

1.1 Overview

1.1.1 The Connah's Quay Low Carbon Power Development Consent Order (DCO) Application was submitted by Uniper UK Limited (the Applicant) to the Secretary of State (SoS) for the Department for Energy Security and Net Zero (DESNZ) on 5th August 2025 under Section 37 of the Planning Act 2008 (PA 2008). The Application was accepted for examination on 28th August 2025 and the Examination commenced on 13th January 2026.

1.1.2 The Applicant is seeking a DCO for the construction, operation (including maintenance) and decommissioning of a proposed low carbon Combined Cycle Gas Turbine (CCGT) Generating Station fitted with Carbon Capture Plant (CCP) (the 'Connah's Quay Low Carbon Power (CQLCP) Abated Generating Station') and supporting infrastructure (collectively the 'Proposed Development') on land at, and in the vicinity of, the existing Connah's Quay Power Station (Kelsterton Road, Connah's Quay, Flintshire, CH6 5SJ), North Wales (the 'Proposed Development Site'). The term 'Order limits' is used to describe the geographical boundaries within which the Proposed Development and associated powers would be exercised.

1.1.3 The Proposed Development would comprise up to two CCGT with CCP units (and supporting infrastructure) achieving a net electrical output capacity of more than 350 megawatts (MW; referred to as MWe for electrical output) and up to a likely maximum of 1,380 MWe (with CCP operational) onto the national electricity transmission network.

1.1.4 Through a carbon dioxide (CO_2) pipeline, comprising existing elements to be repurposed and new elements, the Proposed Development would make use of the CO_2 transport and storage network that will be owned and operated by Liverpool Bay CCS Limited, the onshore pipeline for which is currently under development as part of the HyNet Carbon Dioxide Pipeline project (referred to as the HyNet CO_2 Pipeline Project). The CO_2 transport and storage network will transport CO_2 captured from existing and new industries in North Wales and North-West England to be permanently stored in depleted offshore gas reservoirs in Liverpool Bay.

1.2 Purpose of this Report

1.2.1 This Topic Paper (TP) has been prepared in response to matters raised as part of **National Highways' Relevant Representation [RR-025]**, submitted in respect of the Application. National Highways is the highway authority for the Strategic Road Network (SRN) within England.

1.2.2 **Table 1** outlines the matters raised as part of **National Highway's Relevant Representation [RR-025]**, and signposts the relevant sections where these matters have been addressed by the Applicant, within this TP.

Table 1: Summary of National Highway's Relevant Representation (addressed within this TP)

Ref. No.	National Highway's Relevant Representation Issue/Text	Where Addressed
NH4	Study Area and Construction Vehicle Impacts on the SRN Reference 2-03 of Table 10-6 notes that the study area set out in the PEIR did not include the SRN and it is noted that the ES study area also does not include the SRN. Reference 2-08 and 2-13 notes the previous requests for confirmation of construction worker and HGV trips during weekday peak hours, specifically on the SRN. Reference 2-14 sets out that updates have been made to the TEMPro growth factors in the TA, which is welcomed, notwithstanding that this does not include consideration of SRN links. National Highways does not accept the Applicant's statement relating to the percentage impact on the A548 as relevant or sufficient evidence upon which to judge the potential impact on the SRN. It is our position that even small percentage increases in demand on the SRN can lead to congestion and safety concerns if flows are significant enough. We therefore expect applicants to show the number of expected trips rather than a percentage increase and to determine how the distribution of these trips would impact affected junctions through site specific assessments.	The SRN has been included and assessed within **Appendix 10-A: Transport Assessment** (**TA**) **[APP-188]** and Section 10.6 of **Environmental Statement (ES) Chapter 10: Traffic and Transport [APP-048]**. Use of professional judgement determined that that a significant impact was unlikely to occur on the SRN within England. Notwithstanding this, to provide further information **Section 2** of this TP sets out an expanded study area, incorporating a wider network of SRN links. The SRN links are subsequently assessed for impacts during the temporary construction phase within **Section 3.4**.
NH5	It is requested that the Applicant provide further detail on the construction trips that may use the SRN, based on a range of realistic worst-case assumptions. National Highways would be willing to meet the Applicants to discuss and agree how this information could be presented, drawing on their experience of working with other similar DCO applicants. National Highways would also wish to be consulted upon the development of the framework Construction Traffic Management Plan (APP-247).	The assessments carried out for the assumption of construction traffic impacts have comprised worst case assumptions throughout, this approach is considered robust and exceeds any realistic scenario forecasts. This has been addressed in more detail within **Section 3.4** of this TP and has been

Ref. No.	National Highway's Relevant Representation Issue/Text	Where Addressed
		informed by discussions between the Applicant and National Highways.
NH7	Collision Data Reference 2-05 of Table 10-6 notes that the study area for personal injury collisions in the PEIR did not include the SRN. This has not been addressed in the TA. National Highways request this data be considered for the SRN links and junctions which may carry construction traffic, specifically the M56, A550, A494, A55 and M53.	The study area for collision history analysis included the SRN, in the form of the A548which was deemed to be affected, and which falls under the jurisdiction of the North and Mid Wales Trunk Road Authority (NMWTRA). However, in order to provide the further information sought by National Highways an expanded collision data study area has been set out at **Section 4** of this TP.

2. Assessment Study Area

2.1.1 The SRN has been included and assessed within **Appendix 10-A: TA [APP-188]** and Section 10.6 of **ES Chapter 10: Traffic and Transport [APP-048]**. Use of professional judgement determined that a significant impact was unlikely to occur on the SRN which exists within the National Highways jurisdiction. Notwithstanding this, in order to provide a detailed response to **National Highways' Relevant Representation [RR-025]** (ref. NH4 & NH5), this TP presents an extended assessment study area, inclusive of the following links, which connect to or form part of the Strategic Road Network (SRN):

- A494 (between A550 & M56);
- A5117 (between A494 and M53);
- M53 (north of M56);
- M53 (south of M56);
- M56 (west of M53);
- M56 (east of M53);
- A550/A494 (between A548 and A55);
- A55 (west of A550/A494); and
- A55 (east of A550/A494).

2.1.2 In order to inform a percentage impact assessment at the above links, publicly available data has been sourced from the Department for Transport (DfT), relating to Annual Average Daily Flows (AADF), as well as AM / PM flows from 2022 and 2024 for each of the above locations. Morning and evening hourly flows have been sourced for the hours of 07:00 to 08:00 and 18:00 to19:00 respectively, with these comprising the 'shoulder' hours within which construction workers are most likely to commute to and from the Site, given standard weekday working hours will be 08:00 to18:00. Where 2024 AM / PM data has not been available for certain links, 2022 data has been utilised and factored accordingly to the year of consideration, using TEMPro.

2.1.3 The locations of each DfT count point are presented in **Figure 1** below, with a summary of the 2024 AADF and 2022 / 2024 AM / PM flows provided in Table 2 and Table 3.

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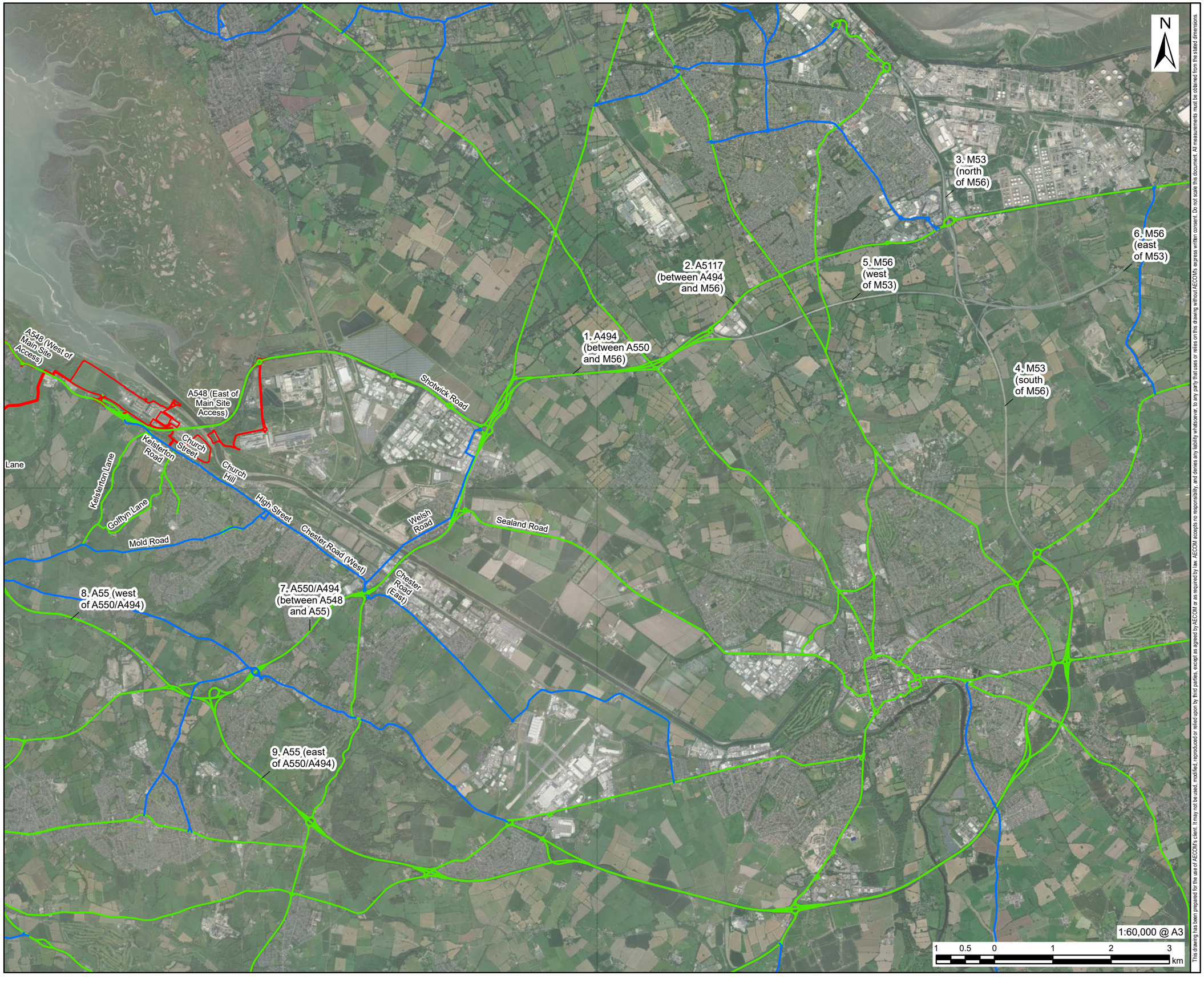
Filename: C:\Users\Grocott\AECOM\Upper Connah's Quay LCDP DCO - 920_GIS\02_Maps\Traffic Report\CQ_TRA_Fig01_LocationOfDfTCountPoints_20260127_01.aprx



AECOM

PROJECT

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LEGEND

- Order limits
- A Road
- B Road

NOTES

ISSUE PURPOSE

Topic Paper Further Consideration of Construction Traffic on the SRN within England - Response to RR-025

DATE

January 2026

PROJECT NUMBER

60717119

FIGURE TITLE

Location of Department for Transport (DfT) Count Points

FIGURE NUMBER

Figure 1

Table 2: Summary of Baseline (2024) DfT AADF

Link	DfT Count Point	Direction	2024 Baseline AADF		
			Total Vehicles	HGVs	HGV%
1. A494 (between A550 & M56)	81376	EB	25,467	2,092	8%
		WB	28,405	1,834	6%
		Two-Way	53,872	3,926	7%
2. A5117 (between A494 and M53)	17801	EB	10,486	311	3%
		WB	9,717	381	4%
		Two-Way	20,203	692	3%
3. M53 (north of M56)	56062	NB	41,693	2,619	6%
		SB	30,727	2,254	7%
		Two-Way	72,420	4,873	7%
4. M53 (south of M56)	75190	NB	32,835	2,471	8%
		SB	32,393	2,482	8%
		Two-Way	65,228	4,953	8%
5. M56 (west of M53)	94146	EB	21,614	2,392	11%
		WB	25,761	2,238	9%
		Two-Way	47,375	4,630	10%
6. M56 (east of M53)	7831	EB	57,618	6,045	10%
		WB	54,522	5,268	10%
		Two-Way	112,140	11,313	10%
7. A550/A494 (between A548 and A55)	559	NB	37,566	1,896	5%
		SB	35,020	1,763	5%
		Two-Way	72,586	3,659	5%

Link	DfT Count Point	Direction	2024 Baseline AADF		
			Total Vehicles	HGVs	HGV%
8. A55 (west of A550/A494)	40531	EB	29,480	1,765	6%
		WB	36,529	1,686	5%
		Two-Way	66,009	3,451	5%
9. A55 (east of A550/A494)	50532	NB	21,800	1,050	5%
		SB	21,299	961	5%
		Two-Way	43,099	2,011	5%

Table 3: Summary of Baseline (2024) DfT AM / PM

Link	Count Point	Direction	2024 Baseline					
			AM Period (07:00-08:00)			PM Period (18:00-19:00)		
			Total Vehicles	HGVs	HGV%	Total Vehicles	HGVs	HGV%
1. A494 (between A550 & M56)	81376	EB	1,808	189	10%	1,197	50	4%
		WB	1,889	256	14%	2,089	56	3%
		Two-Way	3,697	445	12%	3,286	106	3%
2. A5117 (between A494 and M53)	17801	EB	626	25	4%	650	9	1%
		WB	732	39	5%	675	12	2%
		Two-Way	1,358	64	5%	1,325	21	2%
3. M53 (north of M56)	56062	NB	2,608	232	9%	2,365	107	5%
		SB	3,499	235	7%	1,430	51	4%
		Two-Way	6,107	467	8%	3,795	158	4%
4. M53 (south of M56)	75190	NB	3,022	309	10%	2,181	56	3%
		SB	1,538	140	9%	701	16	2%

Link	Count Point	Direction	2024 Baseline					
			AM Period (07:00-08:00)			PM Period (18:00-19:00)		
			Total Vehicles	HGVs	HGV%	Total Vehicles	HGVs	HGV%
		Two-Way	4,560	449	10%	2,882	72	2%
5. M56 (west of M53)	94146	EB	1,860	205	11%	971	72	7%
		WB	1,695	268	16%	1,139	79	7%
		Two-Way	3,555	473	13%	2,110	151	7%
6. M56 (east of M53)	7831	EB	5,260	443	8%	2,525	185	7%
		WB	4,574	617	13%	3,279	196	6%
		Two-Way	9,834	1,060	11%	5,804	381	7%
7. A550/A494 (between A548 and A55)	559	NB	3,148	186	6%	1,696	43	3%
		SB	1,728	194	11%	2,019	58	3%
		Two-Way	4,876	380	8%	3,715	101	3%
8. A55 (west of A550/A494)	40531	EB	2,522	144	6%	1,713	42	2%
		WB	1,721	179	10%	1,971	65	3%
		Two-Way	4,243	323	8%	3,684	107	3%
9. A55 (east of A550/A494)	50532	NB	1,568	97	6%	1,605	38	2%
		SB	2,117	134	6%	1,201	32	3%
		Two-Way	3,685	231	6%	2,806	70	2%

3. Impact Assessment

3.1.1 Further to the representation received from National Highways, additional consideration has been given to the assessment of the SRN beyond the immediate connections, from the NMWTRA network into the National Highways network. The following impact assessment has considered an appropriate extended study area for review by National Highways, in line with the links set out on **Figure 1**, **Table 2** and **Table 3**.

3.1.2 The quantity of construction traffic assessed is in line with the information set out within Section 1.5 of the submitted **Appendix 10-A: TA [APP-188]** and Section 10.6 of **ES Chapter 10: Traffic and Transport [APP-048]**.

3.2 Construction Traffic Distribution

Heavy Vehicles

3.2.1 Given the uncertainties regarding the wider routing of Heavy Goods Vehicles (HGV) during construction of the Proposed Development, the extended assessment has assigned 100% of HGVs (240 two-way trips) onto each of the relevant additional SRN routes by defining specific route options. The following three route options have therefore been considered:

- HGVs exit the A548 onto the A494 (link 1), continuing eastbound towards the M53 and M56. Route continues from the A494 onto the A5117 (link 2) to junction 10 of the M53. From this point, 100% of HGVs have been assigned in both directions, these being northbound and southbound on the M53 (links 3 and 4).
- HGVs exit the A548 onto the A494 (link 1), continuing eastbound towards the M53 and M56. Route continues from the A494 onto the M56 (links 5 and 6).
- HGVs exit the A548 onto the A494 (link 1), continuing southbound on the A550 / A494 (link 7) before reaching Junction 34 of the A55. From this point, 100% of HGVs have been assigned in both directions, these being eastbound and westbound on the A55 (links 8 and 9).

Light Vehicles

3.2.2 The distribution of light vehicles (1,374 two-way trips) onto the wider SRN has been conducted based on the 2021 Census Journey to Work data analysis, undertaken within **ES Chapter 10: Traffic and Transport [APP-048]** and **Appendix 10-A: TA [APP-188]**. The assumptions which form the basis of the extended assessment are set out within **Table 4**.

Table 4: Summary of Light Vehicle Distribution

Link	% Light Vehicle Trips Distributed onto Link	Rationale
1. A494 (between A550 & M56)	21%	21% of light vehicle trips were previously assigned to the A548 East as part of the original assessment. Therefore, in order to continue to be robust, it is assumed that any traffic arriving / departing to / from the A548 East would also use the A494.
2. A5117 (between A494 and M53)	21%	Rationale as per link 1, applied to the A5117.
3. M53 (north of M56)	21%	Rationale as per link 1, applied to the M53, north of the M56.
4. M53 (south of M56)	21%	Rationale as per link 1, applied to the M53, south of the M56.
5. M56 (west of M53)	21%	Rationale as per link 1, applied to the M56, west of the M53.
6. M56 (east of M53)	21%	Rationale as per link 1, applied to the M56, east of the M53.
7. A550/A494 (between A548 and A55)	10%	10% of light vehicle trips were previously assigned to the B5129 as part of the original assessment. It has been assumed that any traffic accessing the B5129 from the SRN would originate from the A550 / A494, between the A548 and A55.
8. A55 (west of A550/A494)	34%	34% of light vehicle trips were previously assigned to Kelsterton Lane as part of the original assessment. This assumes that those vehicles would all access Kelsterton Lane from the A55, to the west of the A550 / A494.
9. A55 (east of A550/A494)	10%	Rationale as per link 7, with the assumption that light vehicle traffic previously assigned to the B5129 would originate from the A55, to the east of the A550 / A494.

3.3 Traffic Growth

3.3.1 The 2022 and 2024 baseline traffic flows for extended SRN study area, presented in **Table 2** and **Table 3**, have been 'growthed' up to 2034 (peak construction year) using TEMPro (Version 8). Growth factors have been derived using an average of the 'Flintshire 004' and '007' Middle Super Output Areas (MSOA), for 'Trunk' road types. Where 2024 AM / PM data has not been available for certain links, 2022 data has been utilised and factored accordingly. The growth factors for AM, PM and an 'average weekday' are presented in **Table 5**.

Table 5: TEMPro Growth Factors – 'Trunk' Road Types

Growth Period	AM Peak	PM Peak	Average Weekday
2022-2024	1.0223	1.0223	N/A
2024-2034	1.0729	1.0724	1.0746

3.4 Impact Assessment

3.4.1 A quantitative assessment of the construction traffic impacts has been undertaken. This includes the identification of the likely percentage changes in traffic flows on the wider SRN study area.

3.4.2 For the purposes of this TP, traffic impact is discussed in both absolute and percentage terms, however, has not been translated into a full Environmental Impact Assessment (EIA). Instead, the purpose of this TP is to provide the information which has been sought by National Highways relating to the maximum likely quantities of construction traffic during the peak construction period, and how this compares to usual background traffic levels.

24-Hour Flows

3.4.3 **Table 6** presents a percentage impact assessment for the 2034 'Baseline + Construction Traffic' scenario, which corresponds with the peak period of construction.

Table 6: 2034 Baseline + Construction – Percentage Impact Assessment – 24hr AADF

Link	Direction	2034 Baseline AADF			2034 Baseline AADF + Construction			Difference		2034 Baseline AADF + Construction - % Change	
		Total Vehicles	HGVs	HGV%	Total Vehicles	HGVs	HGV%	Total Vehicles	HGVs	Total Vehicles	HGVs
1. A494 (between A550 & M56)	EB	27,366	2,248	8%	27,630	2,368	9%	264	120	1%	5%
	WB	30,523	1,971	6%	30,787	2,091	7%	264	120	1%	6%
	Two-Way	57,888	4,219	7%	58,417	4,459	8%	529	240	1%	6%
2. A5117 (between A494 and M53)	EB	11,268	334	3%	11,532	454	4%	264	120	2%	36%
	WB	10,441	409	4%	10,706	529	5%	264	120	3%	29%
	Two-Way	21,709	744	3%	22,238	984	4%	529	240	2%	32%
3. M53 (north of M56)	NB	44,801	2,814	6%	45,065	2,934	7%	264	120	1%	4%
	SB	33,018	2,422	7%	33,282	2,542	8%	264	120	1%	5%
	Two-Way	77,819	5,236	7%	78,347	5,476	7%	529	240	1%	5%
4. M53 (south of M56)	NB	35,283	2,655	8%	35,547	2,775	8%	264	120	1%	5%
	SB	34,808	2,667	8%	35,072	2,787	8%	264	120	1%	4%
	Two-Way	70,091	5,322	8%	70,619	5,562	8%	529	240	1%	5%
5. M56 (west of M53)	EB	23,225	2,570	11%	23,490	2,690	11%	264	120	1%	5%
	WB	27,681	2,405	9%	27,946	2,525	9%	264	120	1%	5%
	Two-Way	50,907	4,975	10%	51,435	5,215	10%	529	240	1%	5%
6. M56 (east of M53)	EB	61,913	6,496	10%	62,178	6,616	11%	264	120	0%	2%
	WB	58,587	5,661	10%	58,851	5,781	10%	264	120	0%	2%
	Two-Way	120,500	12,156	10%	121,029	12,396	10%	529	240	0%	2%
7. A550/A494 (between A548 and A55)	NB	40,367	2,037	5%	40,555	2,157	5%	189	120	0%	6%
	SB	37,631	1,894	5%	37,819	2,014	5%	189	120	1%	6%

	Two-Way	77,997	3,932	5%	78,375	4,172	5%	377	240	0%	6%
8. A55 (west of A550/A494)	EB	31,678	1,897	6%	32,031	2,017	6%	354	120	1%	6%
	WB	39,252	1,812	5%	39,606	1,932	5%	354	120	1%	7%
	Two-Way	70,930	3,708	5%	71,637	3,948	6%	707	240	1%	6%
9. A55 (east of A550/A494)	NB	23,425	1,128	5%	23,614	1,248	5%	189	120	1%	11%
	SB	22,887	1,033	5%	23,076	1,153	5%	189	120	1%	12%
	Two-Way	46,312	2,161	5%	46,689	2,401	5%	377	240	1%	11%

3.4.4 The impact assessment has considered the potential temporary daily impact, resulting from the worst-case assessment of peak construction traffic. In order to account for uncertainties regarding HGV routing, the assessment has been undertaken to represent a scenario whereby 100% of HGV traffic would be assigned in multiple directions between the Site and the SRN. Whilst it is not considered this scenario would occur during construction, it enables the identification of a worst case effect.

3.4.5 The impact assessment demonstrates the largest amount of impact would be experienced on the A5117, between the A494 and the M53. In terms of total vehicles (light vehicles and HGVs), the two-way impact is circa 2%, rising to 32% in relation to HGVs only. As previously set out, in order to account for uncertainties regarding HGV routing, the assessment has been undertaken to represent a scenario whereby 100% of HGV traffic would be assigned in multiple directions between the Site and the SRN. In reality, it is highly unlikely that all HGV traffic would be routed in the direction of the M53, via the A5117.

3.4.6 In terms of total average daily vehicles (light vehicles and HGVs), the assessment has demonstrated that all remaining links experience increases of no greater than 1%, when compared to background traffic. In terms of HGV impact, the assessment has demonstrated that all remaining links experience two-way increases of no more than 11% during the temporary construction phase of the Proposed Development.

AM / PM Peak Periods

3.4.7 The assessment of traffic impact during the AM and PM peak periods has utilised the same distribution assumptions as set out in Section 3.2.

3.4.8 In terms of HGVs, the AM / PM assessment assumes that HGVs will be spread evenly across the 10-hour working day, which translates to around 24 two-way HGVs per hour.

3.4.9 With regard to light vehicles, all trips associated with construction workers are assumed to arrive and depart during the 'shoulder' hours of each AM and PM period, equating to 687 inbound and 687 outbound trips during across the AM and PM hourly periods respectively (totalling 1,374 two-way trips).

3.4.10 **Table 7** presents a percentage impact assessment for the 2034 'Baseline + Construction Traffic' scenario, in relation to the AM and PM hourly periods of 07:00-08:00 and 18:00-19:00 respectively.

Table 7: 2034 Baseline + Construction – Percentage Impact Assessment – AM / PM

Link	Direction	2034 Baseline						2034 Baseline AADF + Construction						Difference				2034 Baseline + Construction - % Change			
		AM Period (07:00-08:00)			PM Period (18:00-19:00)			AM Period (07:00-08:00)			PM Period (18:00-19:00)			AM Period (07:00-08:00)		PM Period (18:00-19:00)		AM Period (07:00-08:00)		PM Period (18:00-19:00)	
		Total Vehicles	HGVs	HGV %	Total Vehicles	HGVs	HGV %	Total Vehicles	HGVs	HGV %	Total Vehicles	HGVs	HGV %	Total Vehicles	HGVs	Total Vehicles	HGVs	Total Vehicles	HGVs	Total Vehicles	HGVs
1. A494 (between A550 & M56)	EB	1,940	203	10%	1,284	54	4%	1,952	215	11%	1,440	66	5%	12	12	156	12	1%	6%	12%	22%
	WB	2,027	275	14%	2,240	60	3%	2,183	287	13%	2,252	72	3%	156	12	12	12	8%	4%	1%	20%
	Two-Way	3,966	477	12%	3,524	114	3%	4,135	501	12%	3,692	138	4%	168	24	168	24	4%	5%	5%	21%
2. A5117 (between A494 and M53)	EB	672	27	4%	697	10	1%	684	39	6%	853	22	3%	12	12	156	12	2%	45%	22%	124 %
	WB	785	42	5%	724	13	2%	942	54	6%	736	25	3%	156	12	12	12	20%	29%	2%	93%
	Two-Way	1,457	69	5%	1,421	23	2%	1,625	93	6%	1,589	47	3%	168	24	168	24	12%	35%	12%	107 %
3. M53 (north of M56)	NB	2,798	249	9%	2,536	115	5%	2,810	261	9%	2,692	127	5%	12	12	156	12	0%	5%	6%	10%
	SB	3,754	252	7%	1,533	55	4%	3,910	264	7%	1,545	67	4%	156	12	12	12	4%	5%	1%	22%
	Two-Way	6,552	501	8%	4,070	169	4%	6,720	525	8%	4,238	193	5%	168	24	168	24	3%	5%	4%	14%
4. M53 (south of M56)	NB	3,314	339	10%	2,391	61	3%	3,471	351	10%	2,403	73	3%	156	12	12	12	5%	4%	1%	20%
	SB	1,687	154	9%	768	18	2%	1,699	166	10%	925	30	3%	12	12	156	12	1%	8%	20%	68%
	Two-Way	5,001	492	10%	3,159	79	2%	5,169	516	10%	3,328	103	3%	168	24	168	24	3%	5%	5%	30%
5. M56 (west of M53)	EB	2,040	225	11%	1,064	79	7%	2,052	237	12%	1,221	91	7%	12	12	156	12	1%	5%	15%	15%
	WB	1,859	294	16%	1,249	87	7%	2,015	306	15%	1,261	99	8%	156	12	12	12	8%	4%	1%	14%
	Two-Way	3,899	519	13%	2,313	166	7%	4,067	543	13%	2,481	190	8%	168	24	168	24	4%	5%	7%	14%
6. M56 (east of M53)	EB	5,643	475	8%	2,708	198	7%	5,655	487	9%	2,864	210	7%	12	12	156	12	0%	3%	6%	6%
	WB	4,907	662	13%	3,516	210	6%	5,063	674	13%	3,528	222	6%	156	12	12	12	3%	2%	0%	6%
	Two-Way	10,550	1,137	11%	6,224	409	7%	10,719	1,161	11%	6,392	433	7%	168	24	168	24	2%	2%	3%	6%
7. A550/A494 (between A548 and A55)	NB	3,452	204	6%	1,859	47	3%	3,533	216	6%	1,871	59	3%	81	12	12	12	2%	6%	1%	25%
	SB	1,895	213	11%	2,213	64	3%	1,907	225	12%	2,294	76	3%	12	12	81	12	1%	6%	4%	19%
	Two-Way	5,348	417	8%	4,073	111	3%	5,440	441	8%	4,165	135	3%	93	24	93	24	2%	6%	2%	22%
8. A55 (west of A550/A494)	EB	2,766	158	6%	1,878	46	2%	3,012	170	6%	1,890	58	3%	246	12	12	12	9%	8%	1%	26%
	WB	1,887	196	10%	2,161	71	3%	1,899	208	11%	2,406	83	3%	12	12	246	12	1%	6%	11%	17%
	Two-Way	4,653	354	8%	4,039	117	3%	4,911	378	8%	4,296	141	3%	258	24	258	24	6%	7%	6%	20%
9. A55 (east of A550/A494)	NB	1,682	104	6%	1,721	41	2%	1,763	116	7%	1,733	53	3%	81	12	12	12	5%	12%	1%	29%
	SB	2,271	144	6%	1,288	34	3%	2,283	156	7%	1,369	46	3%	12	12	81	12	1%	8%	6%	35%
	Two-Way	3,953	248	6%	3,009	75	2%	4,046	272	7%	3,102	99	3%	93	24	93	24	2%	10%	3%	32%

3.4.11 As per the assessment of 24-hour AADF impact, the AM / PM assessment demonstrates the largest amount of impact would be experienced on the A5117 (link 2), between the A494 and the M53. In terms of total vehicles (light vehicles and HGVs), the two-way impact during the PM period is circa 12%, with HGVs creating a 107% impact. This should be considered in the context of the absolute increase in HGV numbers, which is 24 vehicles and is set against a low background HGV flow in this location. As previously set out, in order to account for uncertainties regarding HGV routing, the assessment has been undertaken to represent a scenario whereby 100% of HGV traffic would be assigned in multiple directions between the Site and the SRN. In reality, it is highly unlikely that all HGV traffic would be routed in the direction of the M53, via the A5117.

3.4.12 In terms of total vehicles (light vehicles and HGVs), the assessment has demonstrated that all remaining links experience increases of no greater than 7%, when compared to background traffic, across both AM and PM periods.

3.4.13 The targeted times for construction travel are outside of the network peak hours where the network would be at its most sensitive, but perhaps the percentage of impact could be assessed to be smaller given the likely higher traffic composition. The HGV profile has been assessed to be consistent throughout the day and given in absolute terms of around 24 HGVs in any given hour. With regard to light vehicles, the impact could also be considered to be less than that shown if the use of the hour before, during and after peak AM and PM periods were assessed to all include an element of this total impact.

4. Road Safety

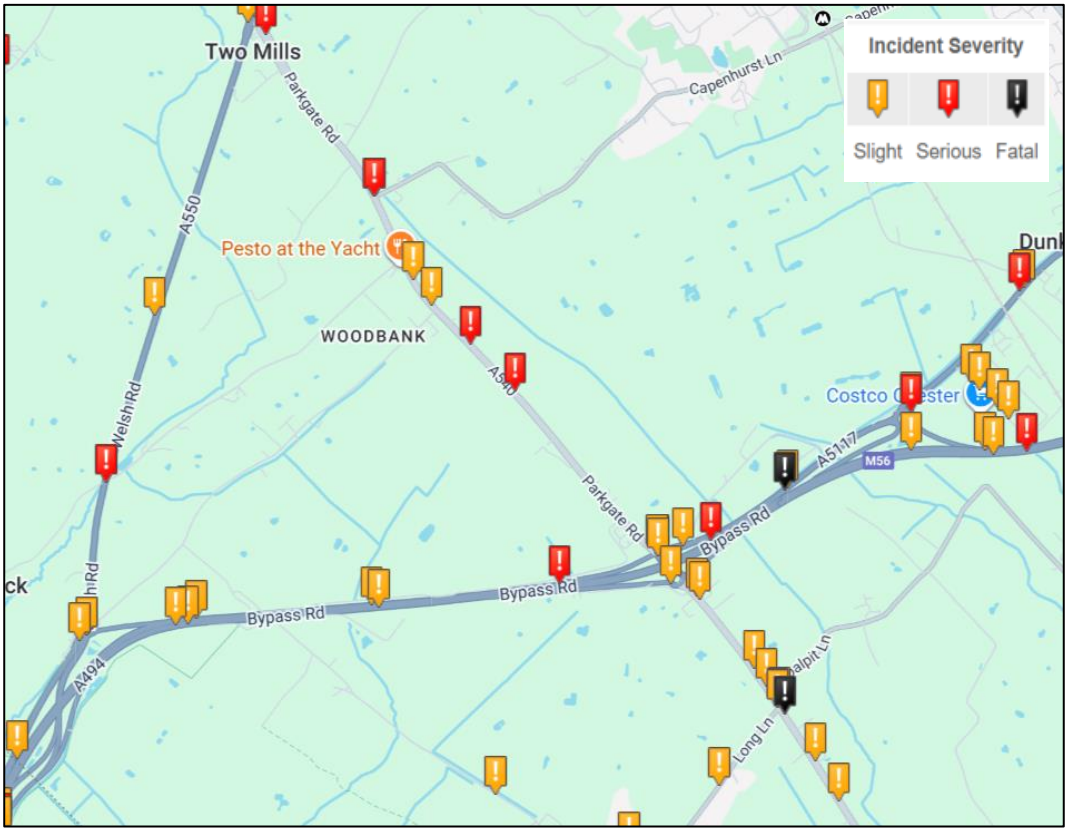
4.1.1 In response to National Highway's Relevant Representation NH07, an updated review of Personal Injury Collision (PIC) data has been carried out to incorporate the extended assessment Study Area (as set out in Section 2). The exercise has been undertaken using the industry standard database, CrashMap, for the most recently available five-year period (2020-2024).

4.1.2 The Plates below have been sourced from CrashMap for an initial and high level consideration for each additional location forming part of the extended assessment Study Area. Within each Plate, PICs are identified and classified by a colour-coded system, whereby yellow indicates a PIC was recorded as 'slight' severity, red indicates a 'serious' severity, and black denotes a fatal collision.

4.2 A494 (between A550 and M56)

4.2.1 **Plate 1** shows the locations of the recorded PICs and their severity in the vicinity of the A494, between the A550 and the M56.

Plate 11: PICs in the vicinity of the A494 (between A550 and M56)



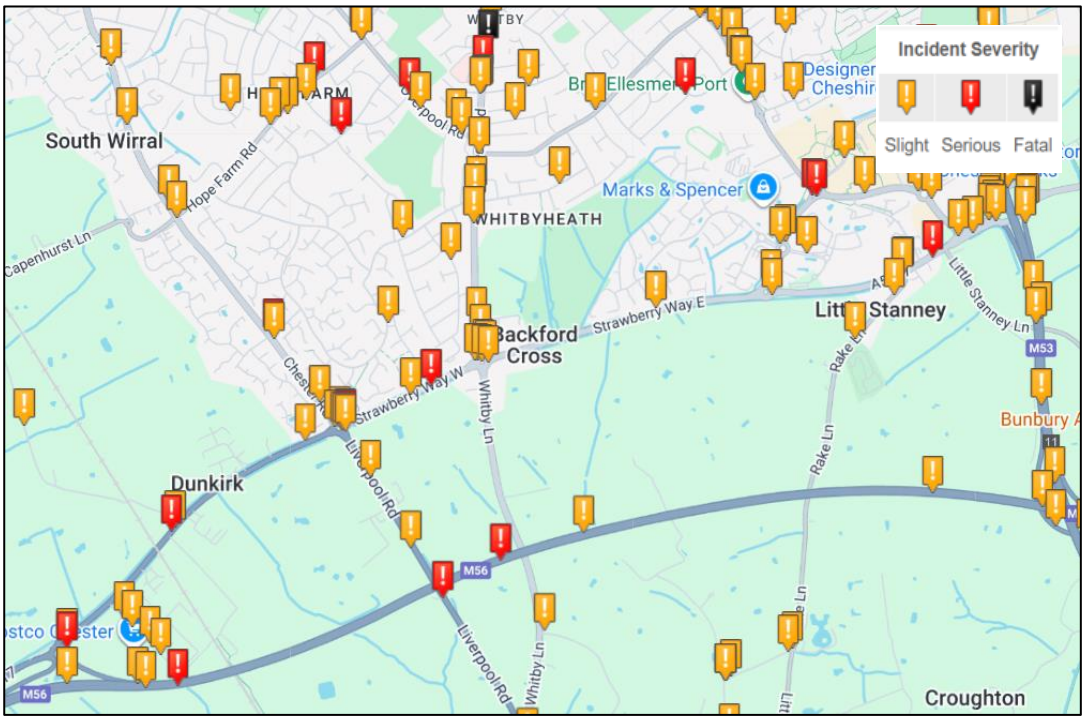
Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.2.2 The majority of PICs recorded on the A494 link, between the A550 and M56 were classified as 'slight', with two 'serious' incidents occurring either side of Parkgate Road. A fatal incident was recorded on the approach to the M56 junction, occurring in 2021 and involving two vehicles. This is not considered to represent an excessive number of PICs and is not indicative of an existing safety issue in this location.

4.3 A5117 (between A494 and M53)

4.3.1 **Plate 2** shows the locations of the recorded PICs and their severity in the vicinity of the A5117, between the A494 and the M53.

Plate 22: PICs in the vicinity of the A5117 (between A494 and M53)



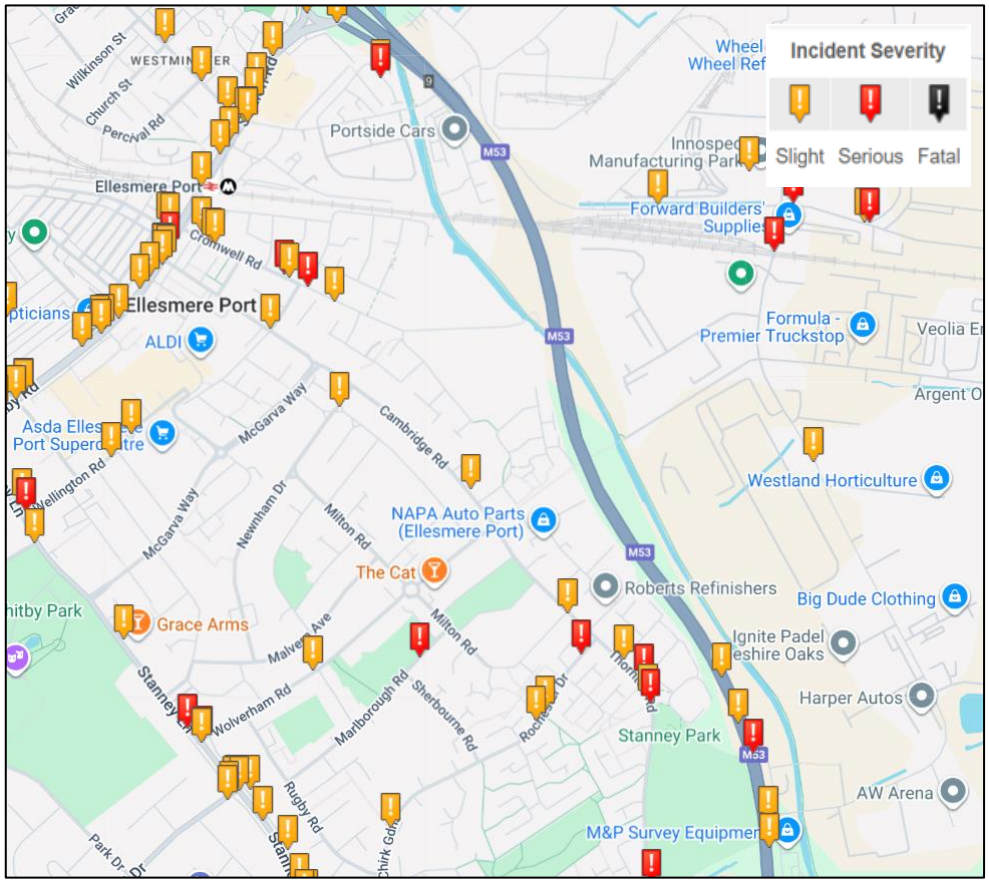
Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.3.2 The majority of PICs recorded on the A5117 link, between the A494 and the M53 were classified as 'slight', with four 'serious' incidents occurring over the five year period. This is considered to represent a low number of PICs over the five year period and is not indicative of an existing safety issue in this location.

4.4 M53 (north of M56)

4.4.1 **Plate 3** shows the locations of the recorded PICs and their severity in the vicinity of the M53, to the north of the M56.

Plate 3: PICs in the vicinity of the M53 (north of M56)



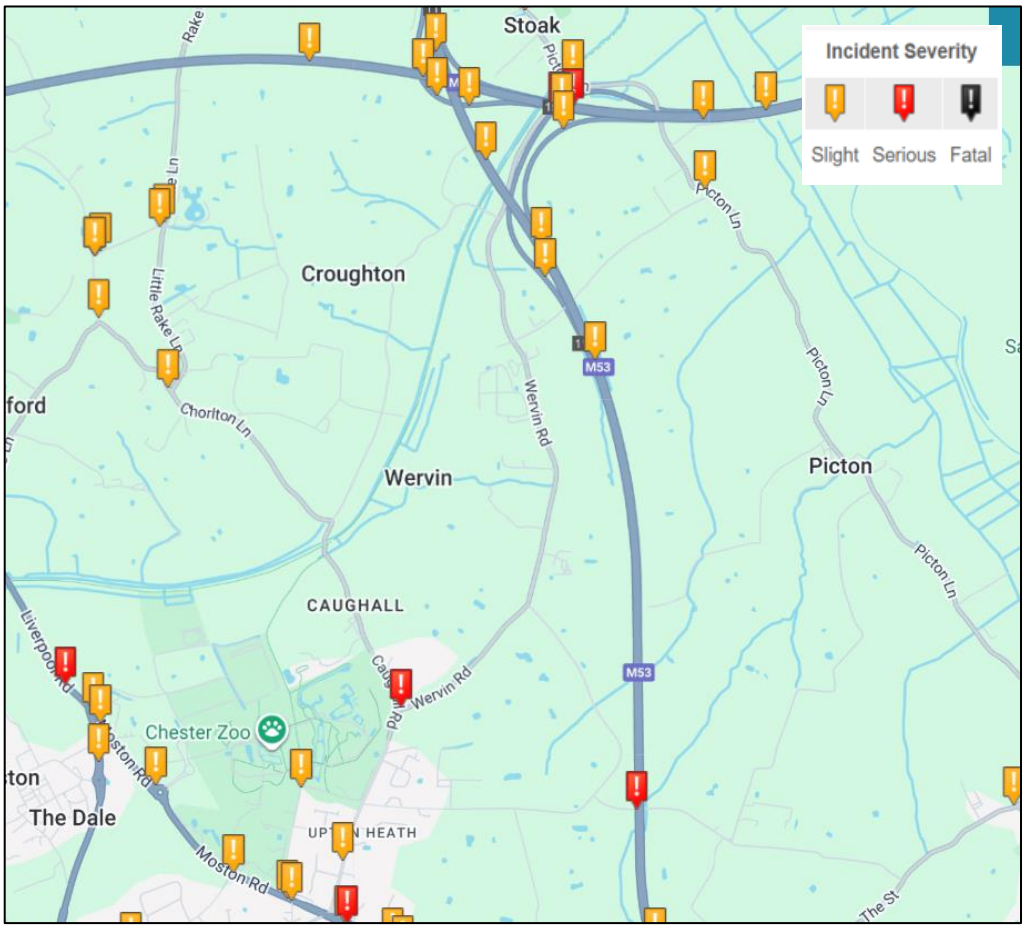
Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.4.2 A total of six PICs were recorded on the M53, to the north of the M56 and in the vicinity of Junction 10. Of these, a single incident was classified as 'serious'. This is considered to represent a low number of PICs over the five year period and is not indicative of an existing safety issue in this location.

4.5 M53 (south of M56)

4.5.1 **Plate 4** shows the locations of the recorded PICs and their severity in the vicinity of the M53, to the south of the M56.

Plate 4: PICs in the vicinity of the M53 (south of M56)



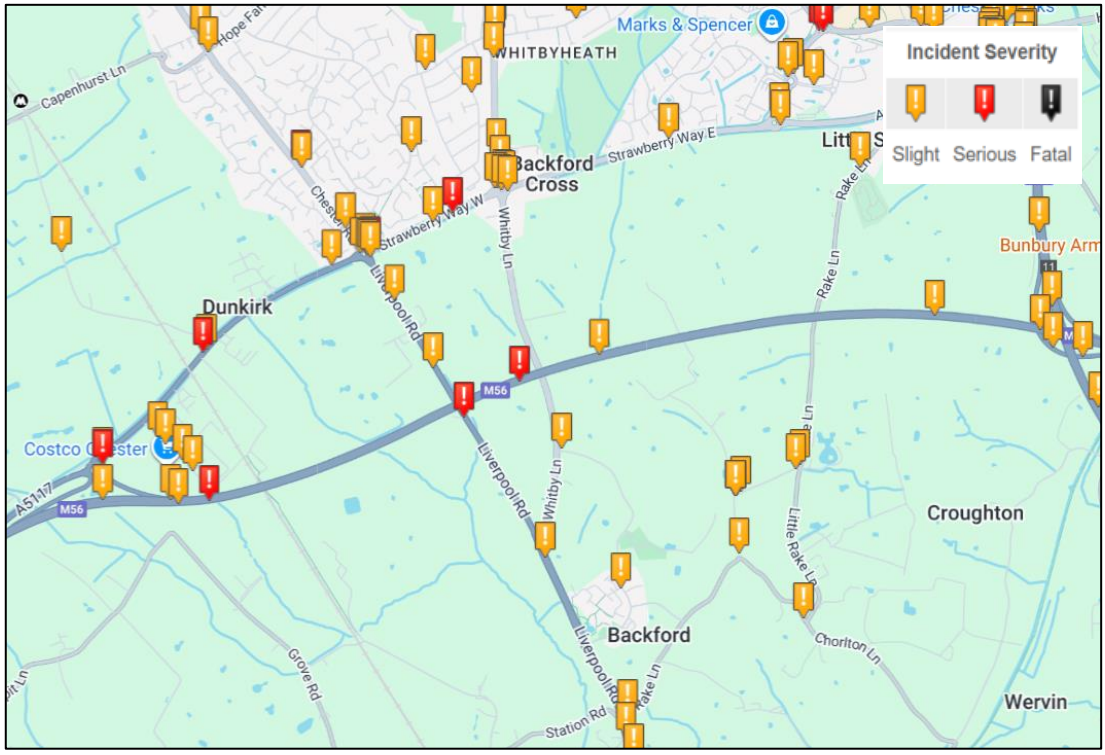
Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.5.2 A total of five PICs were recorded on the M53, to the south of the M56. Of these, a single incident was classified as 'serious'. This is considered to represent a low number of PICs over the five-year period and is not indicative of an existing safety issue in this location.

4.6 M56 (west of M53)

4.6.1 **Plate 5** shows the locations of the recorded PICs and their severity in the vicinity of the M56, to the west of the M53.

Plate 5: PICs in the vicinity of the M56 (west of M53)



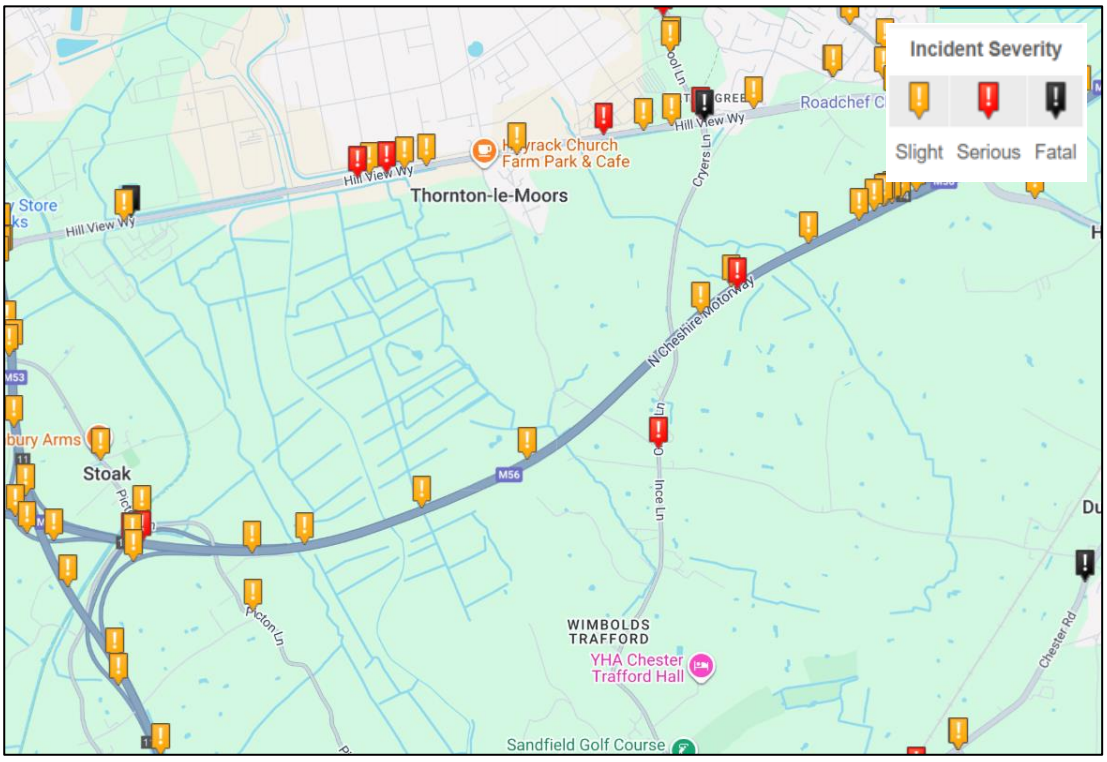
Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.6.2 A total of seven PICs were recorded on the M56, to the west of the M53. Of these, two incidents were classified as 'serious'. This is considered to represent a low number of PICs over the five year period and is not indicative of an existing safety issue in this location.

4.7 M56 (east of M53)

4.7.1 **Plate 6** shows the locations of the recorded PICs and their severity in the vicinity of the M56, to the east of the M53.

Plate 6: PICs in the vicinity of the M56 (east of M53)



Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

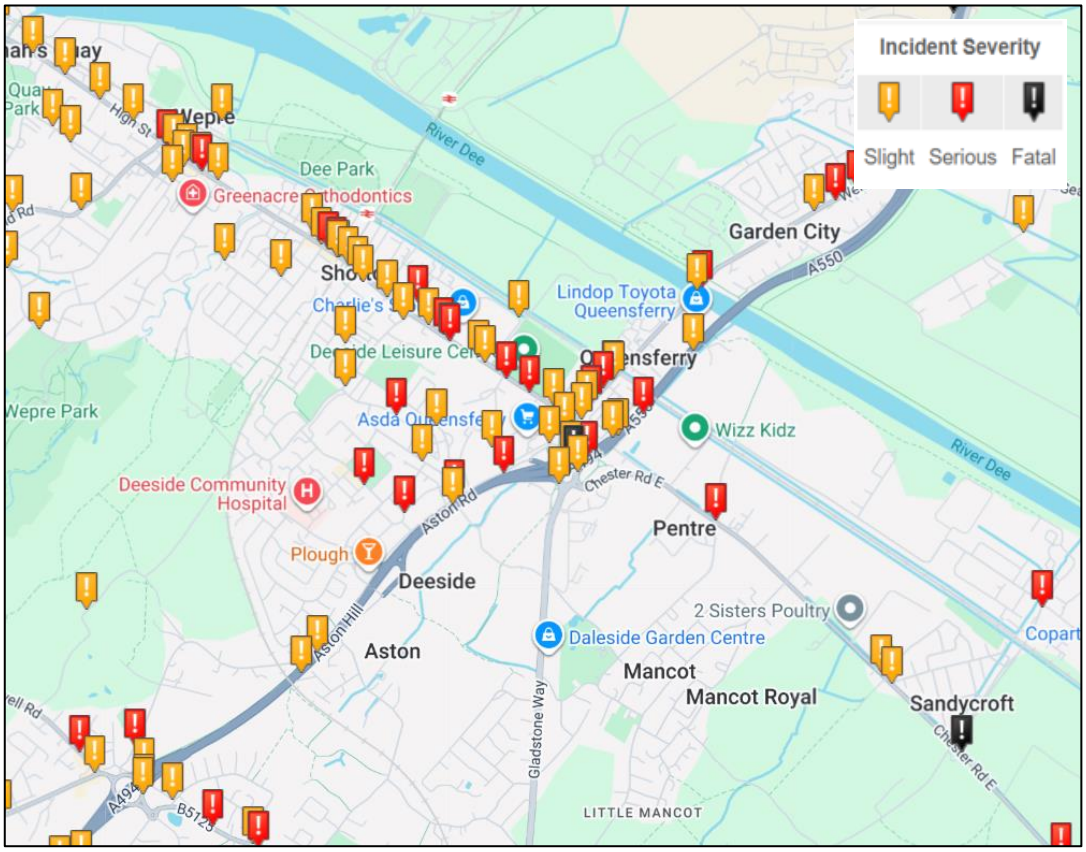
4.7.2 A total of 15 PICs were recorded on the M56, to the east of the M53, between junctions 14 and 15. Of these, a single incident was classified as 'serious'. This is considered to represent a low number of PICs over the five-year period and is not indicative of an existing safety issue in this location.

4.8 A550 / A494 (between A548 and A55)

4.8.1 **Plate 7** shows the locations of the recorded PICs and their severity in the vicinity of the A550 / A494, between the A548 and the A55.

Plate 7: PICs in the vicinity of the A550 / A494 (between A548 and A55)

Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map



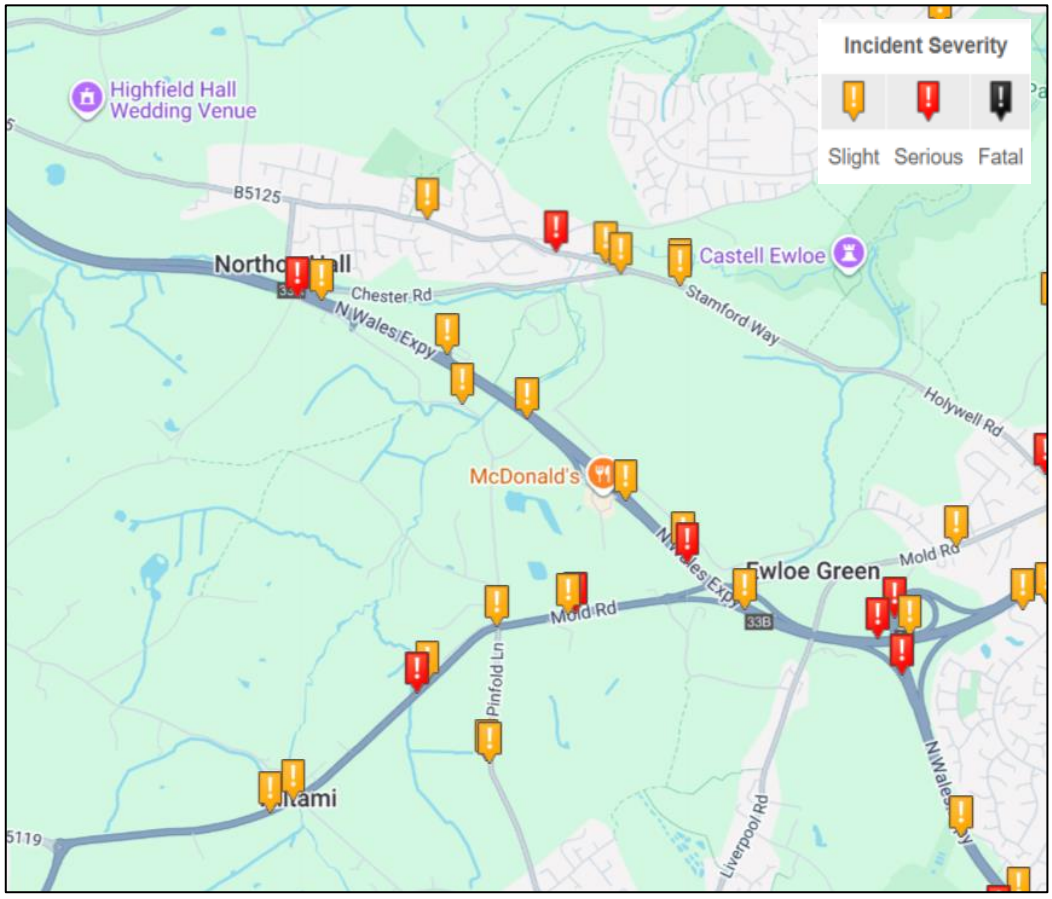
Data Copyright Google (January 2026).

4.8.2 A total of 15 PICs were recorded on the A550 / A494, between the A548 and the A55. The majority of incidents were classified as 'slight', with two fatal incidents occurring. Given this is a well-used section of the SRN this is not considered to represent an excessive number of PICs over the five-year period, nor would it be considered indicative of an existing safety issue on this link.

4.9 A55 (west of A550 / A494)

4.9.1 **Plate 8** shows the locations of the recorded PICs and their severity in the vicinity of the A55, to the west of the A550/A494.

Plate 8: PICs in the vicinity of the A55 (west of A550 / A494)



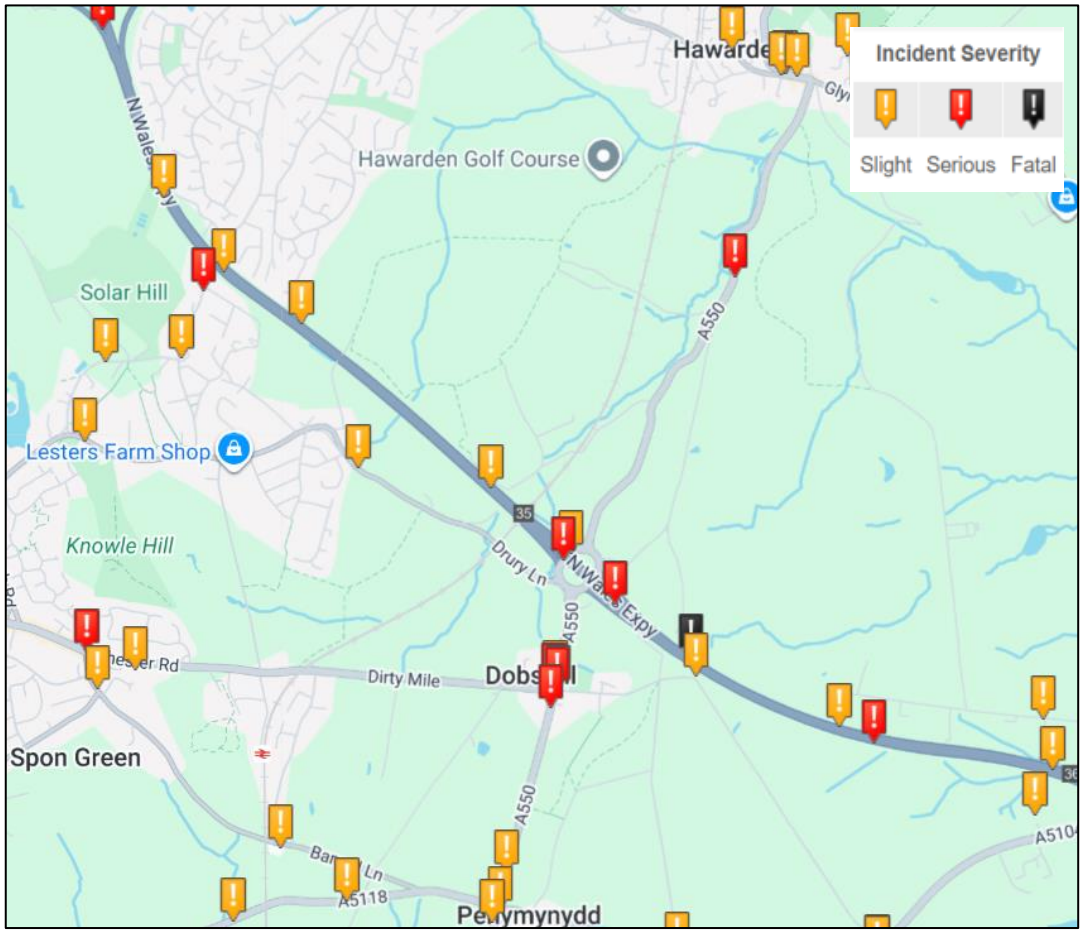
Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.9.2 A total of eight PICs were recorded on the A55, to the west of the A550 / A494. Of these, two incidents were classified as 'serious'. This is considered to represent a low number of PICs over the five year period and is not indicative of an existing safety issue in this location.

4.10 A55 (east of A550 / A494)

4.10.1 **Plate 9** shows the locations of the recorded PICs and their severity in the vicinity of the A55, to the east of the A550/A494.

Plate 9: PICs in the vicinity of the A55 (east of A550 / A494)



Source: CrashMap, Department for Transport data published by www.crashmap.co.uk. Map Data Copyright Google (January 2026).

4.10.2 A total of 13 PICs were recorded on the A55, to the east of the A550/A494. Of these, the majority of incidents were classified as 'slight', with one fatal incident occurring between Junctions 35 and 36. This is considered to represent a low number of PICs over the five year period and is not indicative of an existing safety issue in this location.

4.11 Summary

4.11.1 Overall, the expanded study area, encompassing the wider SRN routes surrounding the Order limits, is not considered to have a record of an excessive number of PICs over the course of the five year assessed period. This would suggest there is not any existing highways issues on these routes that could be exacerbated by traffic associated with the temporary construction phase of the Proposed Development.

5. Conclusion

5.1.1 This TP has been prepared in response to matters raised as part of **National Highway's Relevant Representation [RR-025]**, submitted in respect of the Application. The Applicant team has benefited from discussions held with National Highways prior to the completion of this TP. The input and representations provided by National Highways are welcomed, as is the opportunity to provide further information. The assessments in this TP have been carried out in such a way as to work to directly address concerns raised and to enable National Highways to agree with findings where additional information has been provided. The calculations undertaken for the assessment of construction traffic impacts have comprised worst-case assumptions throughout, this approach is considered robust and exceeds any realistic scenario forecasts. The process of working to agree the content of a Statement of Common Ground will be informed by this work and the ongoing discussions.

5.1.2 The impact assessment has considered the potential temporary impact, resulting from the worst-case assessment of peak construction traffic. With regard to 24-hour flows, the impact assessment demonstrates the largest amount of impact would be experienced on the A5117, between the A494 and the M53. In terms of total vehicles, the two-way impact is circa 2%, rising to 32% in relation to HGVs only. In terms of total traffic, the assessment has demonstrated that all remaining links experience increases of no greater than 1%, when compared to background traffic. In terms of HGV impact, the assessment has demonstrated that all remaining links experience two-way increases of no more than 11% during the temporary construction phase of the Proposed Development.

5.1.3 The assessment of AM / PM impact during construction has demonstrated that the largest amount of impact would be experienced on the A5117, between the A494 and the M53. In terms of total vehicles (light vehicles and HGVs), the two-way impact during the PM period is circa 12%, with HGVs creating a 107% impact. This should be considered in the context of the absolute increase in HGV numbers, which is 24 vehicles and is set against a low background HGV flow in this location. As previously set out, in order to account for uncertainties regarding HGV routing, the assessment has been undertaken to represent a scenario whereby 100% of HGV traffic would be assigned in multiple directions between the Site and the SRN. In reality, it is highly unlikely that all HGV traffic would be routed in the direction of the M53, via the A5117. In terms of total vehicles (light vehicles and HGVs), the assessment has demonstrated that all remaining links experience increases of no greater than 7%, when compared to background traffic, across both AM and PM peak periods.

5.1.4 The targeted times for construction travel are outside of the network peak hours, where the network would be at its most sensitive, although the percentage of impact could be assessed to be smaller at that time given the likely higher traffic composition. The HGV profile has been assessed to be consistent throughout the day and given in absolute terms of around 24 HGVs in any given hour. With regard to light vehicles, the impact could also be considered to be less than that shown if the use of the hour before, during and

after peak AM and PM periods were assessed to all include an element of this total impact.

5.1.5 With regard to road safety, the expanded study area is not considered to have experienced an excessive number of PICs over the course of the five year period and would not suggest there to be existing highways issues on these routes that could be exacerbated by traffic associated with the temporary construction phase of the Proposed Development.