

High Speed Rail (Crewe – Manchester)

Background information and data

Air quality

BID AQ-002-0MA04

MA04: Broomedge to Glazebrook

Additional data used in the air quality
assessment

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Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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1 Introduction

1.1.1 This report presents additional data used in the air quality assessment of the Broomedge to Glazebrook area (MA04) and comprises:

- relevant policies and guidance; and
- baseline air quality data;

1.1.2 Volume 5, Appendix: AQ-001-0MA04¹ should be referred to for details of the air quality impact assessment.

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Air quality report*, Appendix AQ-001-0MA04. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

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2 Relevant policies and guidance

2.1.1 The Broomedge to Glazebrook community area lies within the administrative areas of Warrington Borough Council (WBC), Salford City Council (SaCC) and Trafford Metropolitan Borough Council (TMBC).

2.2 Warrington Borough Council

2.2.1 The WBC Local Plan Core Strategy² is the overarching strategic policy document in the council's local planning framework. It sets out the planning framework for guiding the location and level of development in the borough until 2027.

2.2.2 Policy CS 4 for transport states that the council will support improvements in Warrington's transport network that reduce the impact of traffic on air quality and reduce carbon emissions to help tackle climate change. In addition to Policy CS 4, the Core Strategy Policy QE 6 Environment and Amenity Protection, states:

- 'the Council, in consultation with other Agencies, will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. The Council will take into consideration the following: [...]
- air quality; [...] Proposals may be required to submit detailed assessments in relation to any of the above criteria to the Council for approval; and
- where development is permitted which may have an impact on such considerations, the Council will consider the use of conditions or planning obligations to ensure any appropriate mitigation or compensatory measures are secured...'

2.2.3 The WBC Local Plan Core Strategy is currently under review and a new local plan³ is being developed for Warrington. It sets out the planning framework for guiding the location and level of development in the borough until 2037.

2.2.4 Policy ENV8 on Environmental and Amenity Protection builds on policy QE6 of the adopted plan with the following considerations on air quality:

- '3. the Council will seek to ensure that proposals for new development will not have an unacceptable negative impact on air quality and will not further exacerbate air quality in

² Warrington Borough Council (2014), *Local Plan Core Strategy*. Available online at: <https://www.warrington.gov.uk/adopted-local-plan-2014>.

³ Warrington Borough Council (2019), *Warrington Proposed Submission Version Local Plan 2017 – 2037*. Available online at: https://www.warrington.gov.uk/sites/default/files/2019-09/proposed_submission_version_local_plan_v4.pdf.

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the Council's designated Air Quality Management Areas (AQMAs); or will contribute to air pollution in areas which may result in further areas being designated.

- 4. new development that would result in increased traffic flows on the M62 past Manchester Mosses Special Area of Conservation (SAC) of more than 1000 vehicles per day or 200 heavy duty vehicles (HDV) per day must be accompanied by evidence identifying whether the resultant impacts on air quality would cause a significant effect on ecological interests within the SAC. Where such effects are identified they would need to be considered in accordance with Policy DC4.'

2.3 Salford City Council

2.3.1 The Salford unitary development plan⁴ sets out the council's main planning policies used to guide development, conservation, regeneration and environmental improvement activity in Salford. Saved unitary development plan policies are included within the Plan; those relevant to air quality are detailed below.

2.3.2 Policy EN17: Pollution Control states:

- 'development proposals that would be likely to cause or contribute towards a significant increase in pollution to the air (including dust pollution) ...odour, artificial light or vibration, will not be permitted unless they include mitigation measures commensurate with the scale and impact of the development. Potential releases of pollution must be capable of being adequately regulated by the relevant pollution control authority under the pollution control framework.
- when assessing such proposals, particular regard will be had to the proximity of the development and its effect upon environmentally sensitive uses, buildings, features, areas and considerations such as: [...]
- vi. the quality of soil, air and ground and surface waters.'

2.3.3 Policy EN23 (Environmental Improvement Corridors) identifies that the city's major road, rail and water corridors have developed environmental problems due to many years of focussed use. This policy requires any development in these corridors to preserve or make a positive contribution to the corridor's environment. In regard to air quality this would include contributions to be made towards air quality improvement and accessibility, such as promoting improved public transport and access by foot and bicycle.

2.3.4 Between January and March 2019, SaCC consulted on a Revised Draft Local Plan⁵. This was subsequently revised to focus on development management policies and designations. In

⁴ Salford City Council (2006), *Unitary Development Plan 2004-2016: Saved Policies*. Available online at: <https://www.salford.gov.uk/planning-building-and-regeneration/planning-policies/local-planning-policy/salfords-development-plan/saved-unitary-development-plan-policies/>.

⁵ Salford City Council (2019), *A Fairer City, Salford City Council: Revised Draft Local Plan*. Available online at: <https://www.salford.gov.uk/media/393434/revised-draft-local-plan-final.pdf>.

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January 2020 SaCC released the revised Publication Salford Local Plan⁶. Following a period of consultation, the Publication Salford Local Plan has been submitted to the Secretary of State for examination but has yet to be adopted. The Publication Salford Local Plan includes Policy PH1 Pollution Control, which is expected to supersede EN17, and relates to the need for new development to implement appropriate mitigation, potentially secured through planning conditions/obligations, to prevent or minimise pollution impacts during both the construction and operational phases.

2.4 Trafford Metropolitan Borough Council

- 2.4.1 The Trafford Local Plan Core Strategy⁷ sets out an overarching strategy and development principles for Trafford to guide development until at least 2026. Policy L5: Climate Change - Pollution (L5:13) states:
- 'development that has potential to cause adverse pollution (of air, light, water, ground), noise or vibration will not be permitted unless it can be demonstrated that adequate mitigation measures can be put in place.
 - within the Borough's Air Quality Management Zones developers will be required to adopt measures identified in the Greater Manchester Air Quality Action Plan, to ensure that their development would not have an adverse impact on the air quality.'
- 2.4.2 In addition to Policy L5, Policy R3 (Green Infrastructure) outlines measures that TMBC will implement to develop an integrated network of green infrastructure.

⁶ Salford City Council (2020), *A Fairer City, Salford City Council: Publication Salford Local Plan: Development Management Policies and Designations*. Available online at:

<https://www.salford.gov.uk/media/394997/publication-salford-local-plan-slpdmp-jan-2020.pdf>.

⁷ Trafford Council (2012), *Trafford Local Plan: Core Strategy*. Available online at:

<https://www.trafford.gov.uk/planning/strategic-planning/docs/core-strategy-adopted-final.pdf>.

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3 Baseline air quality data

3.1 Local air quality monitoring data

3.1.1 Table 1 to Table 3 present the monitoring data from the continuous monitors and diffusion tube sites within the Broomedge to Glazebrook area. Table 3 also presents the annual mean NO₂ measurements from the HS2 monitoring sites in this area. No exceedances of the hourly mean NO₂ standard were recorded at the continuous monitoring site. No PM₁₀ or PM_{2.5} monitoring is undertaken in this area.

Table 1: Annual mean pollutant concentrations recorded at continuous monitoring sites

Pollutant ⁸	Annual mean concentrations (µg/m ³)				
	2014	2015	2016	2017	2018
Glazebury (368755, 396030)					
NO ₂	13.5	15.5	15.9	13.5	13.8

Table 2: Annual mean NO₂ concentrations recorded at diffusion tube monitoring sites

Site ^{8,9}	Ordnance Survey coordinates	Annual mean NO ₂ concentrations (µg/m ³)				
		2014	2015	2016	2017	2018
Irlam (Princess Park-SA2)	372140, 394210	22.3	21.3	24.1	22.3	21.4
Irlam Locks (SA1)	372767, 394104	20.2	20.0	22.2	20.8	19.7
WA111 M6 (Manchester Road-DT6)	366102, 389214	41.7	55.5	44.2	39.4	45.6

Table 3: Annual mean NO₂ concentrations recorded at HS2 monitoring sites

Site	Ordnance Survey coordinates	Annual mean NO ₂ concentrations (µg/m ³)	
		2018	2019
MA04.01	369856, 391131	32.0	30.3
MA04.02	371475, 391087	20.6	20.3
MA04.03	370223, 388694	21.6	19.0

3.2 Industrial emission sources

3.2.1 Table 4 presents the industrial installations (regulated by the Environment Agency) with permits for emissions to air within the Broomedge to Glazebrook area.

⁸ Greater Manchester Combined Authority (2019), *2018 Air Quality Annual Status Report (ASR)*. Available online at: https://www.manchester.gov.uk/downloads/download/4166/air_quality_reports.

⁹ Warrington Borough Council (2020), *2020 Air Quality Annual Status Report (ASR)*. Available online at: https://www.warrington.gov.uk/sites/default/files/2020-09/od_36_wbc_2020_asr_extracts.pdf.

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Table 4: Industrial installations with permits for emissions to air

Operator	Permit number	Process
J Priestner Partnership	RP3533UZ	Intensive farming; more than 40,000 poultry
National Grid Gas Plc	TP3234LS	Combustion; any fuel greater than or equal to 50MW
Collier Industrial Waste Limited	LP3039LP	Waste landfilling; greater than 10 tonnes per day with capacity greater than 25,000 tonnes excluding inert waste
Cleansing Service Group Limited	BS1538IQ	Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment
SAICA Paper UK Limited	ZP3736XH	Paper, pulp and board; producing paper/board, greater than 20 tonnes per day
Carrington Power Limited	RP3438GG	Combustion; any fuel greater than or equal to 50MW
UK Power Reserve Limited	JP3334QQ	Medium Combustion Plant
Wainstone Energy Limited	QP3630WH	Combustion; any fuel greater than or equal to 50MW
Kingsland Drinks Limited	VP3434YY	Animal vegetable and food treating etc vegetable

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4 Construction traffic data

- 4.1.1 Table 5 and Table 6 outline the predicted flows for construction traffic on the highway network. The data presented are split into annual average daily traffic (AADT) (Table 5) and HDV (Table 6) in the ‘without the Proposed Scheme’ and ‘with the Proposed Scheme’ scenarios.
- 4.1.2 The air quality assessment of construction traffic emissions has used traffic data based on an estimate of the average daily flows in the peak year during the construction period (2025 – 2037). The assessment assumes vehicle emission rates and background pollutant concentrations from year 2025 as a worst case.
- 4.1.3 Table 6 outlines the predicted flows of construction traffic on the site haul routes. The data are presented for the ‘with the Proposed Scheme’ scenario only split in heavy goods vehicles (HGV) and articulated dump trucks (ADT).

Table 5: Traffic data (AADT) used for the construction assessment

Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
103659_103710	371315, 390284 to 370947, 389700	0	0	14,888	Realignment
103662_103708	371827, 391543 to 372378, 390729	1,346	1,346	1,346	
103662_80679	371827, 391543 to 374504, 393023	18,321	18,879	19,016	
103662_R	371827, 391543	9,527	9,806	9,876	
103710_82505	370947, 389700 to 370593, 389367	0	0	19,876	Realignment
103710_R	370947, 389700	0	0	10,408	Realignment
1281_2074	367091, 387083 to 366510, 386785	130	130	130	
1428_1591	365833, 389206 to 365926, 389176	15,782	15,845	15,846	
1445_1479	369999, 391305 to 369746, 390783	7,698	7,807	7,805	
1479_1445	369746, 390783 to 369999, 391305	10,200	10,267	10,252	
1501_1503	370489, 389327 to 370246, 388788	11,267	11,568	5,752	
1501_82505	370489, 389327 to 370593, 389367	19,031	19,406	0	Realignment
1503_1501	370246, 388788 to 370489, 389327	0	0	11,619	Realignment

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Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
1505_1506	370000, 391309 to 370391, 391324	9,284	9,450	9,401	
1505_2695_01	370000, 391309 to 369981, 391338	9,985	10,377	10,258	
1506_1505_01	370391, 391324 to 370000, 391309	11,315	11,543	11,489	
1518_1591	365979, 389127 to 365926, 389176	7,193	7,223	7,223	
1518_1592_01	365979, 389127 to 365986, 389163	14,376	14,571	14,538	
1532_2914_01	366022, 389099 to 366002, 389112	13,633	13,853	13,823	
1591_1592_01	365926, 389176 to 365986, 389163	5,514	5,537	5,538	
1591_2905_01	365926, 389176 to 366000, 389203	3,076	3,085	3,085	
1592_1593_01	365986, 389163 to 366008, 389175	19,842	20,062	20,028	
1593_2905_01	366008, 389175 to 366000, 389203	30,340	30,583	30,575	
1593_2913_01	366008, 389175 to 366024, 389157	24,055	24,326	24,297	
1622_1680	380678, 391416 to 365643, 389758	13,437	13,574	13,573	
1623_82505	378494, 391219 to 370593, 389367	7,742	7,742	7,742	
1672_2905	387619, 391435 to 366000, 389203	16,325	16,462	16,461	
1680_1622	365643, 389758 to 380678, 391416	8,884	8,982	8,976	
1680_1714	365643, 389758 to 365870, 389505	13,450	13,587	13,586	
1681_2695	370000, 391476 to 369981, 391338	8,697	9,685	9,580	
1683_2518	388151, 394368 to 369270, 392409	499	499	499	
1706_103703	370387, 387993 to 371082, 387489	250	544	624	
1714_1680	365870, 389505 to 365643, 389758	8,884	8,982	8,976	
2049_2074	366425, 386747 to 366510, 386785	130	130	130	

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Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
2450_2519	368949, 391821 to 369702, 391151	705	46	0	Realignment
2455_2519	369547, 391081 to 369702, 391151	1,987	2,057	2,018	
2518_2450	369270, 392409 to 368949, 391821	648	0	0	Realignment
2518_2696	369270, 392409 to 369444, 392571	648	853	764	
2519_2522	369702, 391151 to 369771, 391131	2,622	3,522	3,395	
2522_4049	369771, 391131 to 369799, 391162	3,196	4,101	3,980	
2522_4145	369771, 391131 to 369732, 390828	1,532	1,563	1,557	
2561_103703	371553, 386671 to 371082, 387489	82	82	82	
2695_4049	369981, 391338 to 369799, 391162	3,196	4,295	4,152	
2699_4146	370000, 392050 to 370003, 391880	8,697	9,685	9,580	
2831_4228	369280, 390856 to 369390, 390951	1,987	2,138	2,073	
2905_1672	366000, 389203 to 387619, 391435	15,167	15,264	15,258	
2909_1532	366057, 389072 to 366022, 389099	13,973	14,197	14,165	
2910_85863	366103, 389105 to 366030, 389402	5,982	6,019	6,009	
2911_2910	366025, 389128 to 366103, 389105	5,982	6,019	6,009	
2911_2914_01	366025, 389128 to 366002, 389112	7,923	7,930	7,928	
2912_2911	366335, 389179 to 366025, 389128	7,790	7,831	7,820	
2912_85858_01	366335, 389179 to 366315, 389198	120	120	121	
2913_2911_01	366024, 389157 to 366025, 389128	6,122	6,122	6,122	
2913_85858	366024, 389157 to 366315, 389198	17,933	18,204	18,174	
2914_1518_01	366002, 389112 to 365979, 389127	21,567	21,792	21,760	

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Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
80105_85733	366583, 388347 to 366177, 385644	72,019	73,658	73,750	
80106_80331	366197, 385921 to 366425, 388304	80,937	82,649	82,788	
80108_85866	364803, 390536 to 366160, 389369	65,134	66,796	66,925	
80331_85864	366425, 388304 to 366309, 388794	80,937	82,649	82,788	
80635_80667	375155, 387116 to 370953, 389327	6,502	6,659	6,692	
80667_103659	370953, 389327 to 371315, 390284	14,137	14,746	0	Realignment
80667_103710	370953, 389327 to 370947, 389700	0	0	6,869	Realignment
80667_80635_01	370953, 389327 to 375155, 387116	3,573	3,703	0	Realignment
80667_82505	370953, 389327 to 370593, 389367	19,031	19,785	0	Realignment
80667_R	370953, 389327	0	0	3,390	Realignment
80679_103662	374504, 393023 to 371827, 391543	18,321	18,879	19,016	
82157_103659	371520, 391287 to 371315, 390284	16,115	16,725	16,866	
82157_103662	371520, 391287 to 371827, 391543	18,442	19,000	19,138	
82157_103706	371520, 391287 to 371965, 390598	1,369	1,369	1,369	
82505_103710	370593, 389367 to 370947, 389700	0	0	10,891	Realignment
82505_1623	370593, 389367 to 378494, 391219	0	0	3,029	Realignment
82505_R	370593, 389367	0	0	11,766	Realignment
85849_86971	366493, 389241 to 366364, 389180	6,647	6,799	6,758	
85858_85859_01	366315, 389198 to 366356, 389224	18,053	18,325	18,296	
85859_85849	366356, 389224 to 366493, 389241	7,356	7,692	7,677	
85859_86971_01	366356, 389224 to 366364, 389180	16,891	17,029	17,027	
85864_2909	366309, 388794 to 366057, 389072	13,973	14,197	14,165	

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Road ID	Start and end coordinates	AADT			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 2 with the Proposed Scheme	
85864_85863	366309, 388794 to 366030, 389402	66,963	68,487	68,641	
85866_80105	366160, 389369 to 366583, 388347	57,032	58,467	58,570	
85866_85859	366160, 389369 to 366356, 389224	6,199	6,399	6,411	
86971_2912_01	366364, 389180 to 366335, 389179	7,909	7,952	7,941	
86971_80105	366364, 389180 to 366583, 388347	14,984	15,224	15,195	
95003_103659	372230, 379670 to 371315, 390284	1,248	1,248	1,248	Realignment

Table 6: Traffic data (HDV) used for the construction assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	
103659_103710	371315, 390284 to 370947, 389700	0	0	291	Realignment
103662_103708	371827, 391543 to 372378, 390729	13	13	13	
103662_80679	371827, 391543 to 374504, 393023	196	408	407	
103662_R	371827, 391543	101	207	207	
103710_82505	370947, 389700 to 370593, 389367	0	0	279	Realignment
103710_R	370947, 389700	0	0	191	Realignment
1281_2074	367091, 387083 to 366510, 386785	0	0	0	
1428_1591	365833, 389206 to 365926, 389176	480	480	480	
1445_1479	369999, 391305 to 369746, 390783	398	449	435	
1479_1445	369746, 390783 to 369999, 391305	552	603	589	
1501_1503	370489, 389327 to 370246, 388788	122	194	82	
1501_82505	370489, 389327 to 370593, 389367	126	264	0	Realignment
1503_1501	370246, 388788 to 370489, 389327	0	0	184	Realignment

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Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	
1505_1506	370000, 391309 to 370391, 391324	426	477	463	
1505_2695_01	370000, 391309 to 369981, 391338	209	386	344	
1506_1505_01	370391, 391324 to 370000, 391309	575	625	612	
1518_1591	365979, 389127 to 365926, 389176	324	324	324	
1518_1592_01	365979, 389127 to 365986, 389163	2,047	2,085	2,075	
1532_2914_01	366022, 389099 to 366002, 389112	1,204	1,241	1,231	
1591_1592_01	365926, 389176 to 365986, 389163	73	73	73	
1591_2905_01	365926, 389176 to 366000, 389203	83	83	83	
1592_1593_01	365986, 389163 to 366008, 389175	2,139	2,176	2,166	
1593_2905_01	366008, 389175 to 366000, 389203	2,084	2,083	2,085	
1593_2913_01	366008, 389175 to 366024, 389157	1,366	1,403	1,394	
1622_1680	380678, 391416 to 365643, 389758	724	723	723	
1623_82505	378494, 391219 to 370593, 389367	2	2	2	
1672_2905	387619, 391435 to 366000, 389203	629	629	629	
1680_1622	365643, 389758 to 380678, 391416	561	560	560	
1680_1714	365643, 389758 to 365870, 389505	706	707	706	
1681_2695	370000, 391476 to 369981, 391338	322	409	401	
1683_2518	388151, 394368 to 369270, 392409	0	0	0	
1706_103703	370387, 387993 to 371082, 387489	0	51	57	
1714_1680	365870, 389505 to 365643, 389758	561	560	560	
2049_2074	366425, 386747 to 366510, 386785	0	0	0	

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Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	
2450_2519	368949, 391821 to 369702, 391151	32	42	0	Realignment
2455_2519	369547, 391081 to 369702, 391151	74	74	74	
2518_2450	369270, 392409 to 368949, 391821	3	0	0	Realignment
2518_2696	369270, 392409 to 369444, 392571	3	58	50	
2519_2522	369702, 391151 to 369771, 391131	12	86	44	
2522_4049	369771, 391131 to 369799, 391162	40	114	72	
2522_4145	369771, 391131 to 369732, 390828	37	37	37	
2561_103703	371553, 386671 to 371082, 387489	0	0	0	
2695_4049	369981, 391338 to 369799, 391162	40	194	161	
2699_4146	370000, 392050 to 370003, 391880	322	409	401	
2831_4228	369280, 390856 to 369390, 390951	74	74	74	
2905_1672	366000, 389203 to 387619, 391435	1,497	1,496	1,497	
2909_1532	366057, 389072 to 366022, 389099	1,217	1,255	1,245	
2910_85863	366103, 389105 to 366030, 389402	242	255	251	
2911_2910	366025, 389128 to 366103, 389105	242	255	251	
2911_2914_01	366025, 389128 to 366002, 389112	1,174	1,174	1,174	
2912_2911	366335, 389179 to 366025, 389128	1,137	1,149	1,145	
2912_85858_01	366335, 389179 to 366315, 389198	0	0	0	
2913_2911_01	366024, 389157 to 366025, 389128	275	275	275	
2913_85858	366024, 389157 to 366315, 389198	1,090	1,128	1,118	
2914_1518_01	366002, 389112 to 365979, 389127	2,370	2,409	2,399	

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MA04: Broomedge to Glazebrook

Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	
80105_85733	366583, 388347 to 366177, 385644	8,988	9,570	9,590	
80106_80331	366197, 385921 to 366425, 388304	13,152	13,754	13,782	
80108_85866	364803, 390536 to 366160, 389369	9,926	10,509	10,532	
80331_85864	366425, 388304 to 366309, 388794	13,152	13,754	13,782	
80635_80667	375155, 387116 to 370953, 389327	53	54	54	
80667_103659	370953, 389327 to 371315, 390284	79	292	0	Realignment
80667_103710	370953, 389327 to 370947, 389700	0	0	191	Realignment
80667_80635_01	370953, 389327 to 375155, 387116	37	37	0	Realignment
80667_82505	370953, 389327 to 370593, 389367	126	337	0	Realignment
80667_R	370953, 389327	0	0	61	Realignment
80679_103662	374504, 393023 to 371827, 391543	196	408	407	
82157_103659	371520, 391287 to 371315, 390284	140	352	351	
82157_103662	371520, 391287 to 371827, 391543	195	407	406	
82157_103706	371520, 391287 to 371965, 390598	16	16	16	
82505_103710	370593, 389367 to 370947, 389700	0	0	151	Realignment
82505_1623	370593, 389367 to 378494, 391219	0	0	0	Realignment
82505_R	370593, 389367	0	0	133	Realignment
85849_86971	366493, 389241 to 366364, 389180	229	280	266	
85858_85859_01	366315, 389198 to 366356, 389224	1,090	1,128	1,118	
85859_85849	366356, 389224 to 366493, 389241	793	844	830	
85859_86971_01	366356, 389224 to 366364, 389180	1,456	1,456	1,456	
85864_2909	366309, 388794 to 366057, 389072	1,217	1,255	1,245	

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Additional data used in the air quality assessment

Road ID	Start and end coordinates	HDV			Notes
		2025 without the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	2025 Scenario 1 with the Proposed Scheme	
85864_85863	366309, 388794 to 366030, 389402	11,933	12,540	12,558	
85866_80105	366160, 389369 to 366583, 388347	8,492	9,074	9,090	
85866_85859	366160, 389369 to 366356, 389224	1,157	1,169	1,166	
86971_2912_01	366364, 389180 to 366335, 389179	1,137	1,149	1,146	
86971_80105	366364, 389180 to 366583, 388347	493	531	522	
95003_103659	372230, 379670 to 371315, 390284	0	0	0	Realignment

Table 7: Construction traffic flows on the site haul routes

ID	No. 40 tonne ADT	No. 20 tonne heavy goods vehicle (HGV)	No. 40 tonne ADT (along the route)
MA03/10a	0	10	0
MA03/10a (TN09d)	109	218	0
MA03/11	0	17	0
MA04/01	0	36	0
MA04/03	0	15	0
MA04/04a	0	24	0
MA04/04a (TN09e)	69	139	0
MA04/05	0	39	0
MA04/09	0	22	0
MA04/12	0	8	0
MA04/13	0	9	0
ML_281700	0	7	186
ML_281800	0	0	189
ML_281900	0	6	186
ML_282000	0	6	186
ML_282100	0	6	189
ML_282200	0	6	189
ML_282300	0	12	189
ML_282400	0	10	189
ML_282500	0	10	189
ML_282600	0	10	189
ML_282700	0	10	189
ML_282800	0	6	221

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MA04: Broomedge to Glazebrook

Additional data used in the air quality assessment

ID	No. 40 tonne ADT	No. 20 tonne heavy goods vehicle (HGV)	No. 40 tonne ADT (along the route)
ML_282900	0	6	83
ML_283000	0	6	83
ML_283100	0	6	83
ML_283200	0	6	83
ML_283300	0	6	83
ML_283400	0	6	83
ML_283500	0	6	83
ML_283600	0	20	113
ML_283700	0	16	111
ML_283800	0	16	111
ML_283900	0	30	111
ML_284000	0	6	111
ML_284100	0	6	98
ML_284200	0	6	98
ML_284300	0	6	98
ML_284400	0	6	98
ML_284500	0	6	98
ML_284600	0	6	98
ML_284700	0	6	126
ML_284800	0	6	105
ML_284900	0	11	59
ML_285000	0	11	59
ML_285100	0	6	59
ML_285200	0	6	59
ML_285300	0	6	59
ML_285400	0	6	73
ML_285500	0	6	35
ML_285600	0	6	35
ML_285700	0	33	35
ML_285800	0	33	35
ML_285900	0	33	35
ML_286000	0	18	35
ML_286100	0	18	35
ML_286200	0	18	35
ML_286300	0	18	35
ML_286400	0	18	35
ML_286500	0	61	35
ML_286600	0	0	35

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MA04: Broomedge to Glazebrook

Additional data used in the air quality assessment

ID	No. 40 tonne ADT	No. 20 tonne heavy goods vehicle (HGV)	No. 40 tonne ADT (along the route)
ML_286700	0	0	35
ML_286800	0	31	35
ML_286900	0	54	35
ML_287000	0	54	35
ML_287100	0	54	35
ML_287200	0	54	35
ML_287300	0	54	61
ML_287400	0	54	61
ML_287500	0	54	61
ML_287600	0	54	61
ML_287700	0	6	61
ML_287800	0	6	61
ML_287900	0	6	61
ML_288000	0	6	61
ML_288100	0	7	75
ML_288200	0	7	75
ML_288300	0	6	75
ML_288400	0	6	75
ML_288500	0	6	75
ML_288600	0	6	221
ML_288700	0	6	221
ML_288800	0	6	221
ML_288900	0	6	221
ML_289000	0	6	221
ML_289100	0	6	221
ML_289200	0	6	221
ML_289300	0	6	221
ML_289400	0	6	221

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MA04: Broomedge to Glazebrook

Additional data used in the air quality assessment

5 Operational traffic data

- 5.1.1 Table 8 outlines the predicted flows of traffic on the highway network relating to the operation of the Proposed Scheme in 2038. The data presented are split into AADT and HDV in the 'without the Proposed Scheme' and 'with the Proposed Scheme' scenarios, together with the change between the two scenarios. It also notes whether the road will be closed, diverted or realigned permanently, due to the operation of the Proposed Scheme.

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 Additional data used in the air quality assessment

Table 8: Traffic data used for the operational assessment

Road ID	Road name	AADT			HDV			Notes
		2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	
103659_103710	A6144, Warburton Lane	0	15,005	15,005	0	80	80	Realignment
103710_82505	A6144, New Road	0	20,202	20,202	0	125	125	New alignment
103710_R	A6144, New Road	0	10,527	10,527	0	65	65	New alignment
1445_1479	A57, Manchester Road	8,174	8,174	0	402	402	- 0	New alignment
1479_1445	A57, Manchester Road	10,820	10,820	0	558	558	- 0	
1501_1503	A6144, Bent Lane	11,955	6,012	- 5,943	123	52	- 71	
1501_82505	A6144, Paddock Lane	20,202	0	- 20,202	125	0	- 125	
1503_1501	A6144, Paddock Lane	0	11,955	11,955	0	123	123	New alignment
1623_82505	Paddock Lane	8,222	8,222	0	2	2	- 0	
1683_2518	Bank Street	528	528	0	0	0	0	New alignment
1706_103703	Wet Gate Lane	264	264	0	0	0	0	
2450_2519	Dam Lane	752	0	- 752	33	0	- 33	
2455_2519	School Lane	2,098	2,098	0	75	75	- 0	Realignment
2518_2450	Dam Head Lane	689	0	- 689	3	0	- 3	
2518_2696	Dam Head Lane	689	689	0	3	3	0	
2519_2522	Dam Lane	2,785	3,537	752	12	44	32	
2522_4049	Manchester Road	3,392	4,144	752	40	73	33	Road closed
2522_4145	Manchester Road	1,626	1,626	0	37	37	- 0	
2561_103703	Spring Lane	87	87	0	0	0	0	
2695_4049	Manchester Road	3,392	4,144	752	40	73	33	
2831_4228	School Lane	2,098	2,098	0	75	75	- 0	

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MA04: Broomedge to Glazebrook

Additional data used in the air quality assessment

Road ID	Road name	AADT			HDV			Notes
		2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	
80635_80667	B5160, Dunham Road	6,901	6,901	0	54	54	0	
80667_103659	A6144, Warburton Lane	15,005	0	- 15,005	80	0	- 80	
80667_103710	A6144, Warburton Lane	0	6,901	6,901	0	54	54	
80667_82505	A6144, Paddock Lane	20,202	0	- 20,202	125	0	- 125	
80667_R	A6144, Warburton Lane	0	3,451	3,451	0	27	27	Realignment
82505_103710	A6144, New Road	0	11,083	11,083	0	74	74	Removed
82505_1623	Paddock Lane	0	3,215	3,215	0	0	0	New alignment
82505_80667	Paddock Lane	0	0	0	0	0	0	New alignment
82505_R	A6144, New Road	0	10,095	10,095	0	63	63	New alignment

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MA04: Broomedge to Glazebrook

Additional data used in the air quality assessment

6 References

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