

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix HA-001-0MA07

Health

MA07: Davenport Green to Ardwick
Health assessment matrix

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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 assessment matrices that have been used to identify the health effects relating to the Davenport Green to Ardwick area (MA07).
- 1.1.2 This appendix should be read in conjunction with:
- Volume 2, Community Area reports;
 - Volume 3, Route-wide effects; and
 - Volume 5, Appendices.
- 1.1.3 The matrices in this appendix list the impacts on health determinants identified along the route of the Proposed Scheme and apply assessment criteria as set out in the Environmental Impact Assessment (EIA) Scope and Methodology Report (SMR) (see Volume 5: Appendix CT-001-00001) to evaluate the likely health effects arising from these impacts. The assessment matrices for the construction and operational phases of the Proposed Scheme are set out in Table 1 and Table 2 respectively.
- 1.1.4 Impacts that are categorised as having low intensity and a low extent of exposure are not considered to affect the health of the population. For such impacts, no health effects are reported. The last column of the table indicates whether or not a health effect is reported, and in which volume of the Environmental Statement (ES) is discussed.
- 1.1.5 Commentary on the scientific evidence base used in the health assessment is presented in Volume 5, Appendix HA-002-00000.

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Table 1: Davenport Green to Ardwick (MA07) – Construction health assessment matrix

| MA07 Davenport Green to Ardwick – Health effects during construction | | | | | | | | | | | |
|--|---|---|--|----------------------|--|---|--|-------------------|--|--|-----------|
| Communities | Impact description | Impact pathway | Temporary / permanent | Beneficial / adverse | Health determinant | Intensity of impact (low / moderate / high) | Extent of exposure (low / moderate / high) | Vulnerable groups | Health effects at population level | Mitigation | Reporting |
| Wilmslow | The construction of the Wilmslow Road ventilation and intervention shaft (vent shaft) will be visible from street level on the eastern side of the B5093 Wilmslow Road. Construction noise will be noticeable in outdoor areas. | Visual intrusion and changes to the noise environment as a result of construction works leading to reduced levels of satisfaction with the local environment. | Temporary (up to four years) | Adverse | Neighbourhood quality | Low | Moderate | None identified | Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life. | Incorporated mitigation as reported in the ES. | Volume 2 |
| Wilmslow | Construction of the Wilmslow Road vent shaft would permanently require land which forms the Christie Car Park D on the B5093 Wilmslow Road, serving the Christie Hospital. Car Park D currently operates under a temporary planning permission which is expected to be in operation at the commencement of construction of the Proposed Scheme. | Demolition of community facility. | Permanent | Adverse | Access to services, health and social care | Moderate | Moderate | None identified | Effects on quality of life, limiting access to services. | None identified | Volume 2 |
| A34 Birchfields Road | The A34 Kingsway and the A34 Birchfields Road are designated construction traffic routes. An increase in heavy goods vehicle (HGV) traffic along the A34 Kingsway and the A34 Birchfields Road. | Increase in HGV traffic along the road and changes to the noise environment leading to reduced levels of satisfaction with the local environment. | Temporary (during peak months of construction) | Adverse | Neighbourhood quality | Low | Moderate | None identified | Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life. | Incorporated mitigation as reported in the ES. | Volume 2 |

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|--|--|---|---|----------------------|-----------------------|---|--|---------------------------|--|--|-----------|
| Communities | Impact description | Impact pathway | Temporary / permanent | Beneficial / adverse | Health determinant | Intensity of impact (low / moderate / high) | Extent of exposure (low / moderate / high) | Vulnerable groups | Health effects at population level | Mitigation | Reporting |
| | Noticeable change in noise environment from the increase in traffic at residential properties along the A34. | | | | | | | | | | |
| Birchfields Road | The construction of the Birchfields Road vent shaft will be visible from street level for some properties on A34 Birchfields Road, specifically those which lie opposite the Birchfields Road satellite compound. Construction noise will be noticeable in outdoor areas. The A34 Birchfields Road is a designated construction traffic route and there will be an increase in HGV traffic between the B5093 Moseley Road and Old Hall Lane. | Visual intrusion and changes to the noise environment as a result of construction works and HGV traffic leading to reduced levels of satisfaction with the local environment. | Temporary (up to seven months) | Adverse | Neighbourhood quality | Low | Moderate | None identified | Adverse effects on physical and/or mental wellbeing, such as increased stress and reduced satisfaction with quality of life. | Incorporated mitigation as reported in the ES. | Volume 2 |
| A34 Birchfields Road | Construction of the Birchfields Road vent shaft will be visible from Birchfields Primary School, significant noise effects are predicted and one of the main roads used to access the school will be a construction traffic route. There will be an increase in | Visual intrusion and changes to the noise environment as a result of construction works leading to potential for changes in educational attainment. | Temporary (up to five years and two months) | Adverse | Education | Low | Moderate | Children (under 10 years) | Effects on concentration, behaviour and cognitive impairment. | Incorporated mitigation as reported in the ES. | Volume 2 |

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| | HGV traffic outside the school. The construction of the Birchfields Road vent shaft will be visible from the school. | | | | | | | | | | |
| All areas | Presence of construction workforce on worksites and at satellite compounds (Altrincham Road vent shaft satellite compound, Palatine Road vent shaft satellite compound, Wilmslow Road vent shaft satellite compound, Birchfield Road vent shaft satellite compound, Manchester Tunnel north portal satellite compound, Manchester tunnel north portal main compound). | Presence of workers in local communities including in local shops, restaurants and other facilities, leading to changes in levels of community cohesion and trust. | Temporary (up to nine years) | Adverse | Social capital | Low | Moderate | None identified | No health effects at population level. | Incorporated mitigation as reported in the ES. | Volume 2 |
| All areas | Construction of the Proposed Scheme intersecting public rights of way (PRoW). | Changes in the amenity value of PRoW, increased distance due to diversions, and introduction of features such as footbridges and underpasses, deterring the use of PRoW for active travel and recreation. | Temporary and permanent | Adverse | Access to green space, recreation and physical activity | Low | Low | People on low incomes | No health effects at population level. | Incorporated mitigation as reported in the ES. | Commentary in Volume 2 |
| All areas | Presence of construction traffic, including | Amenity impacts and safety concerns, deterring the use | Temporary | Adverse | Access to green space, recreation and physical activity | Low | Low | None identified | No health effects at population level. | Incorporated mitigation as reported in the ES. | Commentary in Volume 2 |

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|--|--|--|--|----------------------|---------------------------------|---|--|---|---|--|-----------|
| Communities | Impact description | Impact pathway | Temporary / permanent | Beneficial / adverse | Health determinant | Intensity of impact (low / moderate / high) | Extent of exposure (low / moderate / high) | Vulnerable groups | Health effects at population level | Mitigation | Reporting |
| | HGV, on local roads. | of local roads by non-motorised users. | | | | | | | | | |
| Route-wide | Demolition of a total of four residential properties. | Residents required to relocate involuntarily, leading to disruption and uncertainty. Changes in connectivity to social networks, schools, employment, services and facilities. | Permanent | Adverse | Housing | Low to high (depends on individual circumstances) | High (route-wide) | Older people, young families, children, people with specific housing needs, people with mental health conditions. | Effects on mental wellbeing including reduced life satisfaction and increased stress. | Incorporated mitigation as reported in the ES. | Volume 3 |
| Route-wide | Presence of construction activities close to residential properties at Wythenshawe, Didsbury, Levenshulme and Ardwick. | Concern and uncertainty about impacts of construction on local environment and property values. | Temporary (throughout planning and construction) | Adverse | Planning blight and uncertainty | Low to high | High (route-wide) | None identified | Effects on mental wellbeing including reduced life satisfaction and increased stress. | Incorporated mitigation as reported in the ES. | Volume 3 |
| Route-wide | Direct effects on businesses affecting business activities and employment. | Loss of employment and earnings for some business owners and employees. | Permanent | Adverse | Employment and income | Moderate to high | Moderate (route-wide) | People on low incomes, people with disabilities. | Effects on mental and physical wellbeing associated with loss of employment and earnings. | Incorporated mitigation as reported in the ES. | Volume 3 |
| Route-wide | Presence of the construction works providing employment opportunities and demand for local goods and services. | Direct construction employment and training, employment within the supply chain, and benefits to local businesses through increased expenditure. | Temporary (throughout construction) | Beneficial | Employment and income | Moderate to high | High (route-wide) | Unemployed people and people on low incomes. | Beneficial effects on wellbeing associated with improved skills, employment status and income. | None identified | Volume 3 |
| Route-wide | Increase in traffic flows and proportion of HGV on local road network. | Increased risk of road traffic accidents and fear of accidents. | Temporary | Adverse | Transport | Low to high | Moderate (route-wide) | Older people, children, people with disabilities. | Adverse effects on mental and physical wellbeing including stress and behavioural changes such as | Incorporated mitigation as reported in the ES. | Volume 3 |

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| | | | | | | | | | reductions in walking. | | |
| Route-wide | Presence of construction sites, vehicles and plant resulting in increased air emissions. | Increase in exposure of the population to dust, nitrogen oxides and particulates. | Temporary | Adverse | Air quality | Low | Low | Children, older people, people with existing respiratory health conditions. | No health effects at population level. | Incorporated mitigation as reported in the ES. | Not reported |

Table 2: Davenport Green to Ardwick (MA07) – Operational health assessment matrix

| MA07 Davenport Green to Ardwick – Health effects during operation | | | | | | | | | | | |
|---|-----------------------|----------------|-----------------------|----------------------|--------------------|---|--|-------------------|------------------------------------|----------------|----------------|
| Communities | Impact description | Impact pathway | Temporary / permanent | Beneficial / adverse | Health determinant | Intensity of impact (low / moderate / high) | Extent of exposure (low / moderate / high) | Vulnerable groups | Health effects at population level | Mitigation | Reporting |
| CA-wide | No impacts identified | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |