In Parliament – Session 2022 - 2023

HS2

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

Volume 5: Appendix TR-003-00001

Traffic and transport

Transport Assessment Part 3 Addendum

MA01: Hough to Walley's Green

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Department for Transport

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Transport Assessment Addendum – Overall Structure

Transport Assessment Part 1 Addendum – Introduction

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10.1 AP1 revised scheme construction description

Introduction

10.1.1 A number of changes to the original scheme reported in Section 5.2 of this report mean that Section 13.2 of the main Transport Assessment (TA) is generally replaced by Section 10.1 in this document. Where there is no replacement the text in the main TA remains valid.

10.1.2 The terms used in this report to differentiate between the original proposals assessed as part of the main ES and subsequent changes are set out in the SES1 and AP1 ES Volume 5, Appendix: TR-001-00000 Transport Assessment Part 1 Addendum.

10.1.3 This section provides an overview of the construction traffic and transport impacts for the section of the AP1 revised scheme that will pass through the MA01 area.

10.1.4 Construction of the AP1 revised scheme is expected to commence in 2025 with construction activity continuing to 2038 (although activity in 2038 will be limited to testing and commissioning). Construction activities have been assessed against 2030 baseline traffic flows, irrespective of when they occur during the construction period.

Construction activities and phasing

10.1.5 Details of the main construction works and the time periods when each compound is operational are summarised in the indicative construction programme. For the construction programme refer to SES1 and AP1 ES Volume 2, Community Area report: Hough to Walley's Green area (MA01), Section 6.

10.1.6 A complete description of the works associated with the AP1 revised scheme in the MA01 area is provided in Volume 2, Community Area report: Hough to Walley's Green area (MA01), Sections 2 and 4. The construction works will be carried out throughout MA01 for the majority of the construction period. The overall programme has been outlined on a year-by-year basis. Table 13-1 in the main TA summarises the key construction activities, along with their start dates. Table 13-1 below replaces Table 13-1 of the main TA.

Table 13-1: AP1 revised scheme key highway construction activities in the MA01 area

Activity	Community area (CA)	Start date
Area Advance Works	MA01	2025 Q1
Middlewich Street vent shaft	MA01	2027 Q2
Cowley Way vent shaft	MA01	2027 Q2
Crewe Northern Connection – northbound works	MA01	2028 Q2
Crewe Northern Connection – southbound works	MA01	2028 Q2
Crewe tunnel south porous portal	MA01	2030 Q1

Compounds and construction sites

10.1.7 The AP1 revised scheme will be constructed from compounds. This will include main compounds that manage and coordinate the work from satellite compounds. Where material is required to be transferred from site haul movements to highway movements, this will be undertaken through transfer nodes.

10.1.8 Table 13-2 in the main TA summarises the expected average and peak workforce (site workers plus staff) at each construction compound in the MA01 area. Table 13-2 below replaces Table 13-2 of the main TA.

10.1.9 The location of the construction compounds and the associated construction Heavy Goods Vehicle (HGV) routes in MA01 are shown in SES1 and AP1 ES Volume 5, Traffic and transport Map Book: Map Series TR-08.

Table 13-2: AP1 revised scheme assumed workforce at construction sites in the MA01 area

Compound type	Compound name	Number of site workers (peak)	Number of staff (peak)	Total workforce (site plus staff)	
				Average	Peak
Satellite	Crewe tunnel south portal satellite compound	90	48	85	138
Satellite	Cowley Way vent shaft satellite compound	81	53	93	134
Satellite	Middlewich Street vent shaft satellite compound	80	45	86	125
Main	Crewe tunnel north main compound	410	164	314	560
Satellite	Warmingham Moss satellite compound	215	60	131	275
Satellite	Moss Lane satellite compound	195	60	131	255

10.1.10 Table 13-3 of the main TA provides details of the compound set up date and the duration of active use. Table 13-3 below replaces Table 13-3 of the main TA. The duration of active use excludes any period where there are no substantial workforce trips or movement of materials to and from the compound.

10.1.11 Table 13-3 also provides a summary of the HGV and car/Light Goods Vehicle (LGV) access trips at each compound in the peak month of activity and during the busy period. For each compound, the peak month of activity is the month within which HGV traffic is at its highest for that compound. The busy period is the period during which HGV traffic serving that compound will be greater than 50% of the HGV traffic in the peak month. The average daily combined two-way vehicle trips[1] for the busy period is the lower end of the range shown in

[1] Two-way trips refer to the total number of vehicle movements in both directions (i.e. with 200 westbound (or arriving) vehicles and 100 eastbound (or departing), there would be 300 two-way trips).

Table 13-3 and the average daily combined two-way vehicle trips for the peak month is the upper end of the range shown. The estimated duration of busy period is also provided.

Table 13-3: AP1 revised scheme typical vehicle trip generation for construction site compounds in the MA01 area

Compound type	Compound name	Indicative start/set up date (years/ quarter)	Estimated duration of active use (years/ months)	Average daily combined two–way car/LGV trips during busy period and within peak month of activity	Average daily combined two–way HGV trips during busy period and within peak month of activity	Estimated duration of busy period (months)
Satellite	Crewe tunnel south portal satellite compound	2030 Q1	4 years	94–248	188–190	7
Satellite	Cowley Way vent shaft satellite compound	2027 Q2	5 years and 9 months	110–190	116–118	2
Satellite	Middlewich Street vent shaft satellite compound	2027 Q2	5 years 9 months	106–128	72–88	9
Main	Crewe tunnel north main compound	2026 Q3	7 years and 6 months	374–576	222–338	33
Satellite	Warmingham Moss satellite compound	2027 Q2	7 years and 3 months	196–502	166–226	7
Satellite	Moss Lane satellite compound	2027 Q2	7 months and 9 months	196–468	154–210	11

10.1.12 The indicative construction programme in Volume 2, Community Area report: Hough to Walley's Green area (MA01), Section 6 illustrates how the phasing of activities at different compounds will generally be staggered and that construction activities at individual compounds may not occur over the whole duration presented in Table 13-3.

Construction HGV routes

10.1.13 Construction vehicle movements required to construct the AP1 revised scheme will include the delivery of plant and materials, movement of surpluses and site workforce trips. Works will include utilities diversions, earthworks, and the construction of underpasses, viaducts, bridges and highways.

10.1.14 HGV have been routed, where reasonably practicable, along the strategic or primary road network, although some access locations will be via local roads. Where reasonably practicable, the use of the local road network has been limited to site set up, access for environmental surveys and ongoing servicing (including refuse collection and general deliveries).

10.1.15 The AP1 revised scheme will introduce amended construction HGV routes for the Middlewich Street vent shaft satellite compound and the Warmingham Moss satellite compound compared to the original scheme.

10.1.16 The location of the compounds and the associated construction HGV routes are shown on the SES1 and AP1 ES Volume 5, Traffic and transport Map Book: Map Series TR-08. Table 13-4 in the main TA summarises the construction HGV routes to and from each compound to the main road network. Table 13-4 below replaces Table 13-4 of the main TA. For some compounds, Table 13-4 includes multiple construction HGV routes. This is either because the construction HGV route varies depending on the origin/destination of the trip or because the construction HGV route varies over time to account for changes to the highway network or changes in construction activity through the construction period.

Table 13-4: AP1 revised scheme construction HGV routes for construction compounds in the MA01 area

Compound name(s)	Access routes to/from compound(s) to main road network
Crewe tunnel south portal satellite compound	Casey Lane, Newcastle Road and A531 Newcastle Road
Cowley Way vent shaft satellite compound	Route to/from the south: Cowley Way, A532 Weston Road, A5020 David Whitby Way and A500 Shavington Bypass Route to/from the north: Cowley Way, A532 Weston Road and A534 Crewe Road
Middlewich Street vent shaft satellite compound	Route to/from the south: B5076 Middlewich Street, Remer Street, Sydney Road and A5020 University Way B5076 Middlewich Street, Remer Street, B5076 North Street, B5076 Bradfield Road, B5076 Flowers Lane and A530 Middlewich Road Route to/from the north: B5076 Middlewich Street, Remer Street, Sydney Road and A534 Haslington Bypass
Crewe tunnel north main compound	Route to/from the south: Warmingham Road, Groby Road, Sydney Road and A5020 University Way Parkers Road, B5076 Bradfield Road, B5076 Flowers Lane and A530 Middlewich Road Route to/from the north: Warmingham Road, Groby Road, Sydney Road and A534 Haslington Bypass Parkers Road, B5076 Bradfield Road, B5076 Flowers Lane and A530 Middlewich Road
Warmingham Moss satellite compound	Route to/from the south: Site haul route, Warmingham Road, Groby Road, Sydney Road and A5020 University Way Site haul route, Warmingham Road, Groby Road, Sydney Road and A534 Haslington Bypass Site haul route, Parkers Road, B5076 Bradfield Road, B5076 Flowers Lane and A530 Middlewich Road Site haul route, Parkers Road, B5076 Bradfield Road, B5076 Flowers Lane and A530 Middlewich Road

Compound name(s)	Access routes to/from compound(s) to main road network
	Route to/from the north: Site haul route and A530 Nantwich Road
Moss Lane satellite compound	Site haul route and A530 Middlewich Road

10.1.17 Table 13-5 in the main TA summarises the peak daily construction traffic flows associated with the original scheme, both in HGV and total vehicles, on roads within the MA01 area that form part of construction HGV routes. Table 13-5 below replaces Table 13-5 of the main TA.

10.1.18 Table 13-5 indicates a reduction in construction traffic, when compared to the original scheme, on most routes in the MA01 area. Locations with the largest reduction in construction traffic include parts of the A5020 University Way, the A500 Shavington Bypass, the A5020 David Whitby Way, Remer Street, the B5076 Middlewich Street, the B5076 North Street, the B5076 Bradfield Road and the B5076 Flowers Lane.

10.1.19 Table 13-5 indicates an increase in construction traffic, when compared to the original scheme at locations such as parts of the A534 Crewe Road, the A532 Weston Road, the A534 Crewe Road and the A534 Crewe Green Road.

10.1.20 Where zero 'all vehicle' and/or 'HGV' construction flows are indicated, these represent links that are no longer a main construction route when considering the AP1 revised scheme. These links may, however, be subject to occasional or infrequent use by AP1 revised scheme construction traffic.

10.1.21 The forecast traffic flow tables presented in this report use the following abbreviations for road direction: NB = northbound; SB = southbound; EB = eastbound; and WB = westbound.

Table 13-5: AP1 revised scheme MA01 peak daily construction traffic flow

Location	Direction	Daily peak HGV vehicles	Daily peak all vehicles
Back Lane (between Casey Lane and Newcastle Road)	NB	95	115
	SB	95	115
Newcastle Road (between Chorlton Lane and A531 Newcastle Road)	EB	95	129
	WB	95	131
Newcastle Road (between Casey Lane and Chorlton Lane)	EB	95	129
	WB	95	131
Casey Lane (between Back Lane and Weston Lane)	NB	95	146
	SB	95	127
A531 Newcastle Road (between Main Road and A500 Shavington Bypass)	EB	95	162
	WB	95	222
A500 Shavington Bypass (between A51 Newcastle Road and B5071 Jack Mills Way)	EB	695	789
	WB	695	778
A51 Nantwich Bypass (between A51 Newcastle Road and A534 Crewe Road)	NB	695	776
	SB	695	776
	EB	753	1,019

Location	Direction	Daily peak HGV vehicles	Daily peak all vehicles
A500 Newcastle Road (between A500 Shavington Bypass and M6 junction 16)	WB	753	1,115
A500 Shavington Bypass (between B5071 Jack Mills Way and A5020 David Whitby Way)	EB	695	783
	WB	695	777
A500 Shavington Bypass (between A5020 David Whitby Way and A500 Newcastle Road)	EB	753	896
	WB	753	1,003
A51 Nantwich Bypass (between A534 Crewe Road and A530 Middlewich Road)	NB	695	787
	SB	695	789
A5020 David Whitby Way (between A500 Shavington Bypass and B5472 Weston Road)	NB	102	339
	SB	102	224
A530 Middlewich Road (between A51 Nantwich Bypass and Colleys Lane)	NB	695	788
	SB	695	780
A532 Weston Road (between A5020 David Whitby Way and Western Road Service Road (southern access))	EB	56	115
	WB	56	102
A530 Middlewich Road (between Colleys Lane and Wistaston Green Road)	EB	695	789
	WB	695	793
A532 Weston Road (between Western Road Service Road (southern access) and Western Road Service Road (central southern access))	EB	56	115
	WB	56	102
A532 Weston Road (between Western Road Service Road (central southern access) and Western Road Service Road (central northern access))	NB	5	86
	SB	5	99
A532 Weston Road (between Western Road Service Road (central northern access) and Western Road Service Road (northern access))	NB	5	86
	SB	5	99
A532 Weston Road (between Western Road Service Road (northern access) and A534 Crewe Road)	NB	5	86
	SB	5	99
A534 Crewe Road (between A532 Weston Road and Gateway)	EB	5	75
	WB	5	74
A532 Macon Way (between A534 Crewe Road and Hungerford Road)	NB	10	13
	SB	10	36
A534 Crewe Road (between Gateway and Electra Way)	EB	5	75
	WB	5	74
A534 Crewe Green Road (between Electra Way and A5020 University Way)	EB	5	69
	WB	5	74
A530 Middlewich Road (between Wistaston Green Road and A532 Coppenhall Lane)	NB	695	800
	SB	695	804
A5078 Oak Street (between Cross Street and A5019 Mill Street)	EB	10	10
	WB	10	11
A5078 Oak Street (between A5078 Edleston Road and Cross Street)	EB	10	10
	WB	10	11

Location	Direction	Daily peak HGV vehicles	Daily peak all vehicles
A5019 Vernon Way (between A5019 Mill Street and Lyon Street)	EB	10	17
	WB	10	13
A5078 Wistaston Road (between A5078 Dunwoody Way and Edleston Road)	EB	10	12
	WB	10	13
A5078 Dunwoody Way (between Flag Lane and A5078 Wistaston Road)	EB	10	12
	WB	10	12
A532 Coppenhall Lane (between A530 Middlewich Road and Sunnybank Road)	EB	10	13
	WB	10	12
A532 Manchester Bridge (between William Street and Hungerford Road)	EB	10	39
	WB	10	14
A5019 Vernon Way (between Lyon Street and A532 Earle Street)	NB	10	17
	SB	10	13
A5078 Dunwoody Way (between The Four Eagles PH access and Flag Lane)	EB	10	12
	WB	10	12
A532 Earle Street (between A5019 Vernon Way and William Street)	EB	10	14
	WB	10	11
Sydney Road (between Hungerford Road and Shakespeare Drive)	NB	94	306
	SB	94	209
A5078 Dunwoody Way (between Joseph Reddrop Way and The Four Eagles PH access)	NB	10	12
	SB	10	12
A532 Coppenhall Lane (between Sunnybank Road and Victoria Avenue)	EB	10	13
	WB	10	12
A532 Vernon Way (between A532 Earle Street and A532 West Street)	NB	10	17
	SB	10	15
A532 West Street (between Broad Street and A532 Vernon Way)	EB	10	16
	WB	10	14
A532 West Street (between Victoria Avenue and Minshull New Road)	EB	10	13
	WB	10	23
A532 West Street (between Ford Lane and Broad Street)	EB	10	16
	WB	10	14
A532 West Street (between Minshull New Road and Darlington Avenue)	EB	10	13
	WB	10	21
Sydney Road (between Shakespeare Drive and Lansdowne Road)	NB	94	306
	SB	94	209
A5078 Dunwoody Way (A532 West Street and Joseph Reddrop Way)	EB	10	12
	WB	10	12
B5076 Vernon Way (between A532 West Street and Badger Avenue)	NB	10	21
	SB	10	16
	EB	10	16

Location	Direction	Daily peak HGV vehicles	Daily peak all vehicles
A532 West Street (between Goddard Street and Ford Lane)	WB	10	14
A532 West Street (between Darlington Avenue and Frank Webb Avenue)	EB	10	13
	WB	10	12
A532 West Street (between Underwood Lane and Goddard Street)	EB	10	16
	WB	10	17
A532 West Street (between A5078 Dunwoody Way and Underwood Lane)	EB	10	13
	WB	10	10
A532 West Street (between Frank Webb Avenue and A5078 Dunwoody Way)	EB	10	15
	WB	10	12
B5076 Middlewich Road (between B5076 Vernon Way and Henry Street)	EB	10	22
	WB	10	19
B5076 Middlewich Road (between Henry Street and Elm Drive)	NB	10	22
	SB	10	41
A534 Haslington Bypass (between Sydney Road and Clay Lane)	NB	22	105
	SB	22	100
B5076 Middlewich Street (between Henry Street and Elm Drive)	NB	10	22
	SB	10	41
A530 Middlewich Road (between A532 Coppenhall Lane and Pyms Lane)	NB	695	797
	SB	695	802
B5076 Middlewich Road (between Elm Drive and Stamp Avenue)	NB	44	48
	SB	44	50
Sydney Road (between Herbert Street and Maw Green Road)	NB	94	306
	SB	94	210
B5076 Middlewich Street (between Stamp Avenue and Lime Tree Avenue)	NB	44	92
	SB	44	112
A530 Middlewich Road (between Pyms Lane and Middlewich Road)	NB	695	797
	SB	695	802
B5076 Middlewich Street (between Lime Tree Avenue and Remer Street)	NB	44	48
	SB	44	50
Remer Street (between Acer Avenue and Groby Road)	EB	44	53
	WB	44	88
Remer Street (between B5076 Middlewich Street and Acer Avenue)	EB	44	55
	WB	44	89
A530 Middlewich Road (between Middlewich Road and Smithy Lane)	NB	695	797
	SB	695	802
Groby Road (between Remer Street and Stoneley Road)	NB	86	237
	SB	86	199
	EB	85	235

Location	Direction	Daily peak HGV vehicles	Daily peak all vehicles
B5076 Bradfield Road (between Parkers Road and B5076 Flowers Lane)	WB	85	222
Parkers Road (between B5076 Bradfield Road and Higher Croft Drive)	EB	85	217
	WB	85	170
Parkers Road (between Higher Croft Drive and Parkfield)	EB	85	218
	WB	85	170
Parkers Road (between Parkfield and Mablins Lane)	EB	85	218
	WB	85	170
B5076 Flowers Lane (between A530 Middlewich Road and B5076 Bradfield Road)	EB	85	235
	WB	85	222
Parkers Road (between Mablins Lane and Broughton Road)	EB	85	231
	WB	85	174
A534 Haslington Bypass (between Clay Lane and Crewe Road)	EB	22	141
	WB	22	242
Groby Road (between Stoneley Road and Warmingham Road)	NB	86	130
	SB	86	128
A530 Middlewich Road (between Smithy Lane and B5076 Flowers Lane)	NB	695	794
	SB	695	807
Warmingham Road (between Broughton Road and Waldron's Lane)	EB	86	508
	WB	86	463
Warmingham Road (between Waldron's Lane and Groby Road)	EB	86	441
	WB	86	353
A534 Wheelock Bypass (between Crewe Road and Mill Lane)	NB	22	141
	SB	22	232
A530 Middlewich Road (between B5076 Flowers Lane and Eardswick Lane)	NB	628	791
	SB	628	818
Warmingham Road (between Groby Road and Moss Lane)	NB	10	332
	SB	10	245
Warmingham Road (between Groby Road and Hall Lane)	NB	10	332
	SB	10	245
A534 Wheelock Bypass (between Mill Lane and A533 Old Mill Road)	NB	22	144
	SB	22	232
Warmingham Road/School Lane (between Hall Lane and Forge Mill Lane)	NB	10	231
	SB	10	24
A534 Old Mill Road (between Brookhouse Road and A533 The Hill)	NB	22	146
	SB	22	231
A533 Old Mill Road (between A534 Wheelock Bypass and A533 The Hill)	NB	22	146
	SB	22	230
	NB	22	143

Location	Direction	Daily peak HGV vehicles	Daily peak all vehicles
A534 Old Mill Road (between A533 The Hill and Congleton Road)	SB	22	234
A530 Middlewich Road (between Eardswick Lane and Brookhouse Lane)	NB	608	856
	SB	608	852
A534 Old Mill Road (between A553 The Hill and Congleton Road)	NB	22	143
	SB	22	234
A534 Congleton Road (between Congleton Road and M6 northbound off-slip)	EB	22	303
	WB	22	346
A534 Congleton Road (between M6 northbound off-slip and M6 southbound on-slip)	EB	11	132
	WB	12	285
A530 Nantwich Road (between Brookhouse Lane and Clive Green Lane)	NB	409	967
	SB	409	907

Traffic management, road closures and diversions

10.1.22 The approach to traffic management, road closures and diversions is reported in Section 13.2 of the main TA. This section of the main TA is unchanged.

Public rights of way, closures and diversions

10.1.23 The approach to PRoW closures and diversions is reported in Section 13.2 of the main TA. This section of the main TA is unchanged.

10.2 AP1 revised scheme assessment of construction impacts

10.2.1 A number of changes to the original scheme reported in Section 5.2 of this report mean that Section 13.3 of the main TA is generally replaced by Section 10.2 in this document. Where there is no replacement the text in the main TA remains valid.

Key construction transport issues

10.2.2 The construction assessment takes account of all of the impacts of the AP1 revised scheme in the MA01 area. The main temporary traffic and transport impacts in this area will include:

- construction and workforce vehicle movements to and from the various construction compounds;
- road closures, realignments and diversions;
- alternative routes for PRoW and roadside footways; and
- possessions and blockades on the conventional rail network.

10.2.3 The construction assessment has also considered any impacts in this area that arise from construction of the AP1 revised scheme in the adjoining community area.

10.2.4 The AP1 revised scheme will no longer provide a connection to the West Coast Main Line (WCML) between the Pickmere to Agden and Hulseheath area (MA03) and the Risley to Bamfurlong area (MA05), which generally results in reduced construction traffic on the local road network in the MA01 area. Refinements to the construction process and programme will result in further changes to construction traffic on the local road network compared to the original scheme.

Highway network

Highway diversions, realignments and closures

10.2.5 Highway diversions, realignments and closures required to accommodate construction of the original scheme are reported in Section 13.3 of the main TA.

10.2.6 In the original scheme, a section of Parkers Road would be closed between Broughton Road and Bleasdale Road during the extension of the Parkers Road Overbridge for a period of one year and three months, increasing the journey length for vehicle occupants by up to 2.7km.

10.2.7 The AP1 revised scheme includes changes to the Crewe tunnel, which will remove the temporary closure of Parkers Road as reported in the main TA.

10.2.8 The original scheme included temporary utility works to provide a power supply to the Tunnel Boring Machines (TBM) for the construction of Crewe tunnel. The electricity supply for the TBMs would be installed within the public highway on the A530 Middlewich Road, Pyms Lane, Badger Avenue, Underwood Lane, Bradfield Road and Broughton Road. These works would require temporary traffic management and shuttle working along the route of the power supply.

10.2.9 The AP1 revised scheme includes changes to the route of the TBM power supply, which will now be installed within the public highway on Halton Drive, Sunnybank Road, the A532 West Street, Bowen Cooke Avenue, Badger Avenue, Underwood Lane, Bradfield Road, Broughton Road and Parkers Road. This will remove the need for temporary traffic management and shuttle working on the A530 Middlewich Road, Underwood Lane and Pyms Lane as reported in the main TA. Temporary traffic management on Badger Avenue will be required for a period of two weeks as a result of the AP1 revised scheme, compared to three weeks as reported in the main TA. The revised route of the TBM power supply scheme will require utility works and associated traffic management, including temporary shuttle working with traffic control, on the A532 West Street/Coppenhall Lane for a period of eight weeks, resulting in no change in journey length. Utility works associated with the AP1 revised scheme will also require traffic management on Halton Drive for a period of one week, Sunnybank Road for a period of two weeks and Bowen Cooke Avenue for a period of two weeks, resulting in no change in journey length.

10.2.10 Temporary modification of the existing Groby Road/Warmingham Road junction will be required to mitigate construction impacts at this location as reported in the main TA, with no change in journey length. On completion of the construction phase of the AP1 revised scheme, the junction will be reverted to its existing layout. During implementation and removal of the temporary junction modification, temporary traffic management will be required, with no change in journey length.

Highway network analysis

10.2.11 The impacts of construction of the AP1 revised scheme on the highway network have been assessed by undertaking strategic model runs for a number of 'with AP1 revised scheme' construction scenarios, and by comparing the flows and delays against the 2030 future baseline scenario.

10.2.12 Changes have been made within the strategic model to reflect construction including HS2 construction traffic and changes to the road network including road closures, traffic management and changes to junction operations. These changes are only relevant to some aspects of the assessment, namely those related to highway impacts due to the combination of highway changes and construction traffic. These aspects are changes in:

- traffic flows;
- junction performance; and
- bus journey times.

10.2.13 To ensure the assessment addresses the different combinations and interactions of advance works, utility diversions, temporary highway closures and diversions and construction HGV movements through the construction programme period, the impacts have been considered in a utilities scenario and two scenarios representing three distinct temporal phases. These scenarios ensure that all activities are assessed, and combined impacts identified. It should be noted that, due to changes in the construction programme of the AP1 revised scheme, these scenarios differ slightly from those reported in the main TA:

- utilities scenario, 2025 Q1 – 2026 Q3. This scenario corresponds with utility and advance works and includes shuttle working on the A532 West Street/Coppenhall Lane. There are negligible construction traffic movements in this scenario;
- scenario 1, 2026 Q4 – 2030 Q1. This corresponds with the construction peak during the period when Clive Green Lane (Wimboldsley to Lostock Gralam area MA02) will not be available to HS2 construction traffic and includes commencement of works on Cowley Way vent shaft and Middlewich Street vent shaft. This scenario equates to the overall peak in construction traffic across the whole construction period; and
- scenario 2, 2030 Q2 – 2033 Q4. This corresponds with the construction peak following the realignment of Clive Green Lane (Wimboldsley to Lostock Gralam area MA02) and includes works associated with Crewe tunnel north main compound. This scenario equates to 87% of the overall peak in construction traffic across the whole construction period.

10.2.14 Table 13-6 in the main TA summarises the advance works, utility diversions, main works and construction HGV movements included in each scenario, ensuring that the impacts of the relevant activities are assessed in combination, as appropriate. Table 13-6 below replaces Table 13-6 of the main TA.

Table 13-6: AP1 revised scheme construction highway interventions by scenario in the MA01 area

Type	Intervention	Utilities scenario	Scenario 1	Scenario 2
Utilities	Shuttle working on A532 West Street/Coppenhall Lane	Included	Not included	Not included
Main works	Clive Green Lane (Wimboldsley to Lostock Gralam area (MA02)) available to construction traffic	Not included	Not included	Included
Main works	Groby Road/Remer Street/Maw Green Road Junction Improvement Scheme	Included*	Included*	Included*
	Construction HGV traffic assessed as a percentage of peak construction HGV traffic	Negligible	100%	87%

**While it is considered likely that this improvement scheme will have been completed prior to the commencement of the construction of the AP1 revised scheme, due to the uncertainty over the timing of its delivery, these junctions have been assessed both with and without the junction improvement scheme in place.*

Strategic and local road network traffic flows

10.2.15 During the construction period, a number of roads will be affected by the construction of the AP1 revised scheme. An assessment of the impact of construction related vehicle movements and temporary diversions has been undertaken and is detailed below. The flows outlined in the following sections will not necessarily occur concurrently, as impacts on different parts of the network will occur at different times.

10.2.16 The A500 Crewe Area Wide Transport model has been used to model the construction scenarios across MA01. In the MA01 area, the model covers the area from Stoke-on-Trent in the south, Bunbury in the west, Kidsgrove in the east and the M6 junction 18 in the north.

10.2.17 Table 13-7 and Table 13-8 in the main TA set out the traffic flows for the 2030 future baseline and the original scheme on the roads most affected by construction of the original scheme for the AM and PM peak hour. Table 13-7 and Table 13-8 below replace Table 13-7 and Table 13-8 of the main TA respectively. In both time periods, the percentage changes in HGV flows are generally higher than the percentage changes in all traffic flows as a result of the relatively low number of HGV movements in the future baseline. Due to the simplified way in which the road network is represented in the strategic models, the use of some local roads may not be precisely reflected in the forecast traffic flows during construction of the AP1 revised scheme, however, this is not expected to change the conclusions of the assessment.

10.2.18 Traffic flows on all other roads are either unaffected from the future baseline or there are only small changes in traffic flows (HGV or all vehicles of less than 10%) compared to the future baseline daily flow.

10.2.19 It should be noted that, unless identified in the next section of this report relating to junction impacts, these changes in traffic will not result in material increases in congestion or delay.

10.2.20 An assessment has been undertaken of the construction traffic volumes and routes associated with HS2 Phase 2a. However, the assessment indicates that in the future baseline of 2030 there will be minimal construction traffic movements as a result of HS2 Phase 2a that overlap with the AP1 revised scheme.

10.2.21 Figure 13-1 to Figure 13-6 of the main TA show traffic flow changes for each scenario for the AM and PM peak hours respectively. Figure 13-1 to Figure 13-6 below replace Figure 13-1 to Figure 13-6 of the main TA respectively. The width of the band indicates the proportional change in traffic, with red representing an increase and green a decrease compared with the 2030 future baseline scenario.

10.2.22 The forecast traffic flow tables presented in this report use the following abbreviations for road direction: NB = northbound; SB = southbound; EB = eastbound; and WB = westbound.

Table 13-7: 2030 future baseline and with the AP1 revised scheme construction traffic (vehicles), AM peak hour (08:00–09:00)

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Annions Lane (between A51 London Road and B5071 Main Road)	EB	27	0	46	0	70%	0%	50	0	85%	0%	40	0	48%	0%
	WB	68	0	71	0	4%	0%	89	0	31%	0%	87	0	28%	0%
Wybunbury Lane (between Wybunbury Lane and B5071 Stock Lane)	EB	18	0	12	0	-33%	0%	15	0	-17%	0%	16	0	-11%	0%
	WB	12	0	25	0	108%	0%	35	0	192%	0%	34	0	183%	0%
Back Lane (between Casey Lane and Newcastle Road)	NB	107	0	108	0	1%	0%	91	3	-15%	0%	98	10	-8%	0%
	SB	81	0	82	0	1%	0%	130	3	60%	0%	140	10	73%	0%
Newcastle Road (between Chorlton Lane and A531 Newcastle Road)	EB	412	17	417	17	1%	0%	402	20	-2%	18%	392	26	-5%	53%
	WB	484	10	495	10	2%	0%	536	15	11%	50%	540	21	12%	110%
Newcastle Road (between Casey Lane and Chorlton Lane)	EB	384	15	389	15	1%	0%	374	18	-3%	20%	364	24	-5%	60%
	WB	461	10	470	10	2%	0%	513	14	11%	40%	517	21	12%	110%
Main Road east (between Newcastle Road and Main Road west)	NB	87	0	108	0	24%	0%	117	0	34%	0%	107	0	23%	0%
	SB	53	0	56	0	6%	0%	74	0	40%	0%	72	0	36%	0%
A531 Newcastle Road (between Main Road and A500 Shavington Bypass)	EB	261	17	265	17	2%	0%	140	19	-46%	12%	133	25	-49%	47%
	WB	272	12	274	12	1%	0%	321	15	18%	25%	349	22	28%	83%
	EB	1,438	77	1,434	81	0%	5%	1,382	124	-4%	61%	1,396	112	-3%	45%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A500 Shavington Bypass (between A51 Newcastle Road and B5071 Jack Mills Way)	WB	1,164	74	1,193	77	2%	4%	1,171	137	1%	85%	1,164	117	0%	58%
A51 Nantwich Bypass (between A51 Newcastle Road and A534 Crewe Road)	NB	960	55	949	53	-1%	-4%	905	112	-6%	104%	925	91	-4%	65%
	SB	661	65	622	65	-6%	0%	617	112	-7%	72%	617	100	-7%	54%
Casey Lane (between Back Lane and Weston Lane)	NB	88	6	91	6	3%	0%	98	6	11%	0%	109	6	24%	0%
	SB	69	12	61	12	-12%	0%	104	12	51%	0%	134	12	94%	0%
Cemetery Road (between Cemetery Road north and Main Road)	EB	35	1	35	1	0%	0%	35	1	0%	0%	36	1	3%	0%
	WB	104	1	103	1	-1%	0%	130	1	25%	0%	154	1	48%	0%
Cemetery Road (between Whites Lane and Mere Road)	EB	48	0	49	0	2%	0%	49	0	2%	0%	49	0	2%	0%
	WB	69	0	70	0	1%	0%	98	1	42%	0%	122	1	77%	0%
A500 Shavington Bypass (between B5071 Jack Mills Way and A5020 David Whitby Way)	EB	1,587	81	1,630	84	3%	4%	1,562	127	-2%	57%	1,559	115	-2%	42%
	WB	1,450	87	1,480	90	2%	3%	1,388	149	-4%	71%	1,373	128	-5%	47%
A500 Shavington Bypass (between A5020 David Whitby Way and A500 Newcastle Road)	EB	1,049	78	1,059	77	1%	-1%	1,072	132	2%	69%	1,095	119	4%	53%
	WB	1,431	83	1,431	83	0%	0%	1,351	149	-6%	80%	1,377	128	-4%	54%
A500 Newcastle Road (between A500 Shavington Bypass and M6 junction 16)	EB	1,475	125	1,476	125	0%	0%	1,413	179	-4%	43%	1,423	170	-4%	36%
	WB	1,839	98	1,824	91	-1%	-7%	1,809	160	-2%	63%	1,855	143	1%	46%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A51 Nantwich Bypass (between A534 Crewe Road and A530 Middlewich Road)	NB	1,046	44	1,050	41	0%	-7%	1,034	101	-1%	130%	1,049	80	0%	82%
	SB	511	65	556	66	9%	2%	585	114	14%	75%	569	101	11%	55%
A5020 David Whitby Way (between A500 Shavington Bypass and B5472 Weston Road)	NB	891	39	918	43	3%	10%	920	46	3%	18%	938	44	5%	13%
	SB	389	37	413	39	6%	5%	483	47	24%	27%	487	44	25%	19%
A530 Middlewich Road (between A51 Nantwich Bypass and Colleys Lane)	NB	1,131	29	1,057	27	-7%	-7%	1,162	97	3%	234%	1,168	76	3%	162%
	SB	835	25	806	26	-3%	4%	780	95	-7%	280%	794	74	-5%	196%
A5020 University Way (between A534 Crewe Green Road and A532 Weston Road)	NB	688	20	735	24	7%	20%	734	25	7%	25%	739	24	7%	20%
	SB	643	27	772	30	20%	11%	677	35	5%	30%	667	34	4%	26%
A530 Middlewich Road (between Colleys Lane and Wistaston Green Road)	EB	1,176	29	1,081	27	-8%	-7%	1,205	98	2%	238%	1,210	77	3%	166%
	WB	1,002	27	921	27	-8%	0%	955	96	-5%	256%	968	75	-3%	178%
Barthomley Road (between Radway Green Road and B5077 Butterton Lane)	NB	105	0	108	0	3%	0%	111	0	6%	0%	111	0	6%	0%
	SB	63	1	61	1	-3%	0%	61	1	-3%	0%	62	1	-2%	0%
Weston Road Service Road (between Weston Road south access and Weston Road north access)	EB	145	5	331	17	128%	240%	146	5	1%	0%	146	5	1%	0%
	WB	16	1	16	1	0%	0%	16	1	0%	0%	16	1	0%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Union Street (between A5078 Edleston Road and Lord Street)	EB	210	1	205	8	-2%	700%	198	3	-6%	200%	193	5	-8%	400%
	WB	4	0	12	8	200%	0%	7	3	75%	0%	9	5	125%	0%
Union Street (between Lord Street and A5019 Mill Street)	EB	210	1	205	8	-2%	700%	198	3	-6%	200%	193	6	-8%	500%
	WB	6	0	14	8	133%	0%	10	4	67%	0%	11	5	83%	0%
A530 Middlewich Road (between Wistaston Green Road and A532 Coppenhall Lane)	NB	1,267	27	1,169	25	-8%	-7%	1,267	95	0%	252%	1,274	75	1%	178%
	SB	1,011	33	954	33	-6%	0%	941	101	-7%	206%	962	81	-5%	145%
Wistaston Road (between Flag Lane and Walthall Street)	EB	16	3	17	3	6%	0%	16	3	0%	0%	17	3	6%	0%
	WB	185	5	370	9	100%	80%	187	5	1%	0%	186	5	1%	0%
Coleridge Way (between Hungerford Road and Wordsworth Drive)	NB	39	2	39	2	0%	0%	39	2	0%	0%	39	2	0%	0%
	SB	95	0	111	0	17%	0%	98	0	3%	0%	98	0	3%	0%
Sydney Road (between Hungerford Road and Shakespeare Drive)	NB	675	7	727	7	8%	0%	704	16	4%	129%	724	16	7%	129%
	SB	776	10	769	10	-1%	0%	840	20	8%	100%	836	19	8%	90%
Shakespeare Drive (between Sydney Road and Laureston Avenue)	EB*	5	1	5	1	0%	0%	5	1	0%	0%	5	1	0%	0%
	WB	68	0	84	0	24%	0%	71	0	4%	0%	71	0	4%	0%
Laureston Avenue (between Shakespeare Drive and Wordsworth Drive)	NB	68	0	84	0	24%	0%	71	0	4%	0%	71	0	4%	0%
	SB*	5	1	5	1	0%	0%	5	1	0%	0%	5	1	0%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Wordsworth Drive (between Kipling Way and Laureston Avenue)	EB	6	0	5	0	-17%	0%	6	0	0%	0%	6	0	0%	0%
	WB	66	0	82	0	24%	0%	68	0	3%	0%	68	0	3%	0%
Wordsworth Drive (between Tennyson Avenue and Kipling Way)	EB	7	0	7	0	0%	0%	7	0	0%	0%	7	0	0%	0%
	WB	63	0	79	0	25%	0%	66	0	5%	0%	66	0	5%	0%
Wordsworth Drive (between Coleridge Way and Tennyson Avenue)	EB	11	0	11	0	0%	0%	11	0	0%	0%	11	0	0%	0%
	WB	65	0	81	0	25%	0%	67	0	3%	0%	67	0	3%	0%
Coleridge Way (between Lansdowne Road and Wordsworth Drive)	NB	31	2	32	2	3%	0%	31	2	0%	0%	32	2	3%	0%
	SB	34	0	34	0	0%	0%	34	0	0%	0%	34	0	0%	0%
Lansdowne Road (between Coleridge Way and Pelican Close)	EB	7	2	7	2	0%	0%	7	2	0%	0%	7	2	0%	0%
	WB	15	0	15	0	0%	0%	15	0	0%	0%	15	0	0%	0%
Sydney Road (between Shakespeare Drive and Lansdowne Road)	NB	561	7	597	7	6%	0%	588	16	5%	129%	607	15	8%	114%
	SB	714	10	709	10	-1%	0%	767	19	7%	90%	763	18	7%	80%
Lansdowne Road (between Lansdowne Road and Sydney Road)	EB	14	3	15	3	7%	0%	14	3	0%	0%	15	3	7%	0%
	WB	46	0	46	0	0%	0%	46	0	0%	0%	46	0	0%	0%
	NB	739	14	920	14	24%	0%	687	81	-7%	479%	719	61	-3%	336%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A530 Middlewich Road (between A532 Coppenhall Lane and Pyms Lane)	SB	793	20	785	19	-1%	-5%	730	86	-8%	330%	749	66	-6%	230%
B5076 Middlewich Road (between Elm Drive and Stamp Avenue)	NB	256	3	292	3	14%	0%	242	7	-5%	133%	245	5	-4%	67%
	SB	391	4	409	4	5%	0%	396	8	1%	100%	390	6	0%	50%
Sydney Road (between Herbert Street and Maw Green Road)	NB	554	9	590	9	6%	0%	569	18	3%	100%	589	18	6%	100%
	SB	731	9	724	10	-1%	11%	784	19	7%	111%	780	18	7%	100%
Stamp Avenue (between Greenway and B5076 Middlewich Street)	EB	40	0	36	1	-10%	0%	47	1	18%	0%	51	1	28%	0%
	WB	27	0	27	0	0%	0%	50	0	85%	0%	57	0	111%	0%
B5076 Middlewich Street (between Stamp Avenue and Lime Tree Avenue)	NB	284	3	320	3	13%	0%	270	8	-5%	167%	272	5	-4%	67%
	SB	406	4	428	4	5%	0%	427	9	5%	125%	424	6	4%	50%
Lime Tree Avenue (between B5076 Middlewich Street and Sycamore Avenue)	EB	84	1	84	1	0%	0%	84	1	0%	0%	84	1	0%	0%
	WB	51	1	51	1	0%	0%	74	1	45%	0%	81	1	59%	0%
A530 Middlewich Road (between Pyms Lane and Middlewich Road)	NB	693	14	872	13	26%	-7%	634	81	-9%	479%	666	60	-4%	329%
	SB	800	19	808	19	1%	0%	745	86	-7%	353%	759	66	-5%	247%
	EB	83	0	83	1	0%	0%	83	1	0%	0%	83	1	0%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Lime Tree Avenue (between Sycamore Avenue and Acer Avenue)	WB	46	0	46	0	0%	0%	68	0	48%	0%	76	0	65%	0%
Clay Lane (between Newtons Lane and Maw Lane)	EB	85	0	100	0	18%	0%	92	0	8%	0%	92	0	8%	0%
	WB	125	2	124	2	-1%	0%	145	2	16%	0%	147	2	18%	0%
Greenway (between Stamp Avenue and B5076 Middlewich Street)	NB	17	1	15	1	-12%	0%	16	1	-6%	0%	20	1	18%	0%
	SB	22	0	16	0	-27%	0%	31	0	41%	0%	36	0	64%	0%
Lime Tree Avenue (between Prunus Road and Elm Drive)	EB	85	1	86	1	1%	0%	86	1	1%	0%	86	1	1%	0%
	WB	52	1	51	1	-2%	0%	75	1	44%	0%	82	1	58%	0%
Elm Drive (between Lime Tree Avenue and Remer Street)	NB	286	5	286	5	0%	0%	311	5	9%	0%	306	5	7%	0%
	SB	357	7	378	7	6%	0%	401	7	12%	0%	410	7	15%	0%
Lime Tree Avenue (between Acer Avenue and Prunus Road)	EB	83	0	84	1	1%	0%	84	1	1%	0%	83	1	0%	0%
	WB	48	1	48	0	0%	-100%	71	0	48%	-100%	79	0	65%	-100%
B5076 Middlewich Street (between Lime Tree Avenue and Remer Street)	NB	206	3	243	3	18%	0%	192	8	-7%	167%	194	5	-6%	67%
	SB	361	4	383	4	6%	0%	359	8	-1%	100%	349	6	-3%	50%
Acer Avenue (between Remer Street and Lime Tree Avenue)	NB	2	0	2	0	0%	0%	3	0	50%	0%	3	0	50%	0%
	SB*	0	0	1	0	0%	0%	0	0	0%	0%	0	0	0%	0%
	EB	974	9	879	9	-10%	0%	1,003	13	3%	44%	1,004	10	3%	11%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Remer Street (between B5076 Middlewich Street and Acer Avenue)	WB	437	15	412	14	-6%	-7%	421	19	-4%	27%	436	16	0%	7%
Selworthy Drive (between B5076 Bradfield Road and Underwood Lane)	NB	137	0	119	1	-13%	0%	155	1	13%	0%	151	0	10%	0%
	SB	76	2	39	1	-49%	-50%	92	2	21%	0%	83	2	9%	0%
B5076 Middlewich Street (between Broad Street and Remer Street)	EB	1,333	10	1,260	10	-5%	0%	1,351	11	1%	10%	1,345	10	1%	0%
	WB	642	16	652	16	2%	0%	601	16	-6%	0%	621	16	-3%	0%
Newtons Lane (between Clay Lane and Nesfield Drive)	EB	25	0	40	0	60%	0%	32	0	28%	0%	33	0	32%	0%
	WB	52	1	53	1	2%	0%	71	1	37%	0%	74	1	42%	0%
Underwood Lane (between Cliffe Road and Newbury Avenue)	EB	76	4	39	2	-49%	-50%	95	4	25%	0%	92	4	21%	0%
	WB	254	4	223	4	-12%	0%	249	4	-2%	0%	249	4	-2%	0%
Newtons Lane (between Nesfield Drive and Crewe Road)	EB	84	0	101	0	20%	0%	92	0	10%	0%	92	0	10%	0%
	WB	102	1	105	1	3%	0%	122	1	20%	0%	124	1	22%	0%
Underwood Lane (between Newbury Avenue and Pear Tree Avenue)	NB	74	4	37	2	-50%	-50%	92	4	24%	0%	90	4	22%	0%
	SB	247	3	217	4	-12%	33%	240	4	-3%	33%	239	4	-3%	33%
Stoneley Road (between B5076 Broad Street and Waldron's Lane)	NB*	69	0	14	0	-80%	0%	96	0	39%	0%	87	0	26%	0%
	SB	147	0	62	0	-58%	0%	194	0	32%	0%	188	0	28%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5076 North Street (between Broughton Road and Broad Street)	EB	660	16	658	15	0%	-6%	711	16	8%	0%	698	16	6%	0%
	WB	620	23	589	23	-5%	0%	589	23	-5%	0%	605	23	-2%	0%
Underwood Lane (between Pear Tree Avenue and B5076 Bradfield Road)	NB	73	4	37	3	-49%	-25%	92	4	26%	0%	89	4	22%	0%
	SB	246	3	216	4	-12%	33%	239	4	-3%	33%	238	4	-3%	33%
B5076 Bradfield Road (between Underwood Lane and Broughton Road)	EB	583	16	576	14	-1%	-13%	632	16	8%	0%	619	16	6%	0%
	WB	626	20	588	20	-6%	0%	591	20	-6%	0%	608	20	-3%	0%
B5076 Bradfield Road (between Selworthy Drive and Mablins Lane)	EB	307	11	315	10	3%	-9%	313	10	2%	-9%	306	10	0%	-9%
	WB	416	16	408	16	-2%	0%	370	15	-11%	-6%	403	15	-3%	-6%
B5076 Bradfield Road (between Mablins Lane and Cliffe Road)	EB	533	21	545	21	2%	0%	567	20	6%	-5%	551	21	3%	0%
	WB	492	31	513	31	4%	0%	485	31	-1%	0%	496	31	1%	0%
B5076 Bradfield Road (between Cliffe Road and Underwood Lane)	EB	391	16	419	16	7%	0%	421	16	8%	0%	412	16	5%	0%
	WB	671	21	661	21	-1%	0%	642	21	-4%	0%	661	21	-1%	0%
Broughton Road (between Maplins Moss Place and Parkers Road)	NB	85	4	85	4	0%	0%	87	6	2%	50%	88	6	4%	50%
	SB	168	2	166	2	-1%	0%	168	3	0%	50%	170	3	1%	50%
Groby Road (between Remer Street and Stoneley Road)*	NB	134	3	134	3	0%	0%	168	12	25%	300%	172	12	28%	300%
	SB	396	4	395	4	0%	0%	439	13	11%	225%	444	13	12%	225%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A530 Middlewich Road (between Middlewich Road and Smithy Lane)	NB	496	13	637	11	28%	-15%	454	79	-8%	508%	484	59	-2%	354%
	SB	680	18	689	18	1%	0%	643	85	-5%	372%	650	65	-4%	261%
B5076 Bradfield Road (between Parkers Road and Selworthy Drive)	NB	483	12	460	12	-5%	0%	428	11	-11%	-8%	462	11	-4%	-8%
	SB	394	11	367	9	-7%	-18%	389	10	-1%	-9%	376	10	-5%	-9%
Stoneley Road (between Waldron's Lane and Groby Road)	EB	44	1	66	1	50%	0%	92	1	109%	0%	87	1	98%	0%
	WB	0	0	14	0	0%	0%	88	0	0%	0%	100	0	0%	0%
B5076 Bradfield Road (between Parkers Road and B5076 Flowers Lane)	EB	705	27	762	24	8%	-11%	718	33	2%	22%	730	34	4%	26%
	WB	824	26	817	25	-1%	-4%	754	33	-8%	27%	787	33	-4%	27%
Parkers Road (between B5076 Bradfield Road and Higher Croft Drive)	EB	321	16	405	14	26%	-13%	355	22	11%	38%	371	23	16%	44%
	WB	430	12	452	12	5%	0%	427	21	-1%	75%	420	21	-2%	75%
Parkers Road (between Higher Croft Drive and Parkfield)	EB	434	15	515	13	19%	-13%	501	21	15%	40%	508	22	17%	47%
	WB	266	10	283	10	6%	0%	295	19	11%	90%	278	19	5%	90%
Parkers Road (between Parkfield and Mablins Lane)	EB	486	14	567	13	17%	-7%	558	21	15%	50%	565	21	16%	50%
	WB	257	11	275	11	7%	0%	292	19	14%	73%	276	19	7%	73%
A530 Middlewich Road (between Smithy Lane and B5076 Flowers Lane)	NB	284	9	305	8	7%	-11%	292	77	3%	756%	290	57	2%	533%
	SB	528	20	503	20	-5%	0%	507	88	-4%	340%	506	68	-4%	240%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Waldron's Lane (between Stoneley Road and Warmingham Road)	NB	73	0	31	1	-58%	0%	188	0	158%	0%	191	0	162%	0%
	SB	69	1	91	1	32%	0%	108	1	57%	0%	103	1	49%	0%
Parkers Road (between Mablins Lane and Broughton Road)	EB	545	4	638	3	17%	-25%	599	12	10%	200%	610	12	12%	200%
	WB	395	4	399	4	1%	0%	401	12	2%	200%	402	12	2%	200%
Groby Road (between Stoneley Road and Warmingham Road)	NB	287	3	273	3	-5%	0%	229	11	-20%	267%	220	12	-23%	300%
	SB*	539	3	598	3	11%	0%	508	12	-6%	300%	515	12	-4%	300%
Warmingham Road (between Broughton Road and Waldron's Lane)	EB	466	4	559	4	20%	0%	482	12	3%	200%	479	13	3%	225%
	WB	418	5	419	5	0%	0%	550	13	32%	160%	589	13	41%	160%
B5076 Flowers Lane (between A530 Middlewich Road and B5076 Bradfield Road)	EB	743	27	799	24	8%	-11%	756	33	2%	22%	768	33	3%	22%
	WB	770	25	762	24	-1%	-4%	698	33	-9%	32%	733	33	-5%	32%
Warmingham Road (between Waldron's Lane and Groby Road)	EB	495	3	510	3	3%	0%	490	12	-1%	300%	483	12	-2%	300%
	WB	443	5	430	5	-3%	0%	478	13	8%	160%	505	13	14%	160%
A530 Middlewich Road (between B5076 Flowers Lane and Eardswick Lane)	NB	515	11	523	10	2%	-9%	468	72	-9%	555%	487	52	-5%	373%
	SB	950	28	895	27	-6%	-4%	934	88	-2%	214%	934	70	-2%	150%
	NB	311	3	321	2	3%	-33%	311	63	0%	2000%	307	44	-1%	1367%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A530 Middlewich Road (between Eardswick Lane and Brookhouse Lane)	SB	501	20	440	18	-12%	-10%	541	79	8%	295%	560	61	12%	205%
B5074 Over Road/B5074 Swanlow Lane (between Cross Lane and Moor Lane)	NB	456	23	571	23	25%	0%	563	23	23%	0%	544	23	19%	0%
	SB	455	13	473	14	4%	8%	538	21	18%	62%	551	21	21%	62%

**Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment*

Table 13-8: 2030 future baseline and with the AP1 revised scheme construction traffic (vehicles), PM peak hour (17:00–18:00)

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Annions Lane (between A51 London Road and B5071 Main Road)	EB	37	0	37	0	0%	0%	38	0	3%	0%	38	0	3%	0%
	WB	30	0	30	0	0%	0%	42	0	40%	0%	34	0	13%	0%
Wybunbury Lane (between Wybunbury Lane and B5071 Stock Lane)	EB	16	0	16	0	0%	0%	16	0	0%	0%	16	0	0%	0%
	WB	14	0	14	0	0%	0%	20	0	43%	0%	15	0	7%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Back Lane (between Casey Lane and Newcastle Road)	NB	80	0	86	0	8%	0%	115	3	44%	0%	121	10	51%	0%
	SB	197	0	195	0	-1%	0%	200	3	2%	0%	208	10	6%	0%
Newcastle Road (between Chorlton Lane and A531 Newcastle Road)	EB	572	3	577	3	1%	0%	629	7	10%	133%	633	13	11%	333%
	WB	666	3	676	4	2%	33%	726	8	9%	167%	725	14	9%	367%
Newcastle Road (between Casey Lane and Chorlton Lane)	EB	551	3	556	3	1%	0%	608	6	10%	100%	612	13	11%	333%
	WB	664	3	674	4	2%	33%	724	8	9%	167%	724	14	9%	367%
Main Road east (between Newcastle Road and Main Road west)	NB	23	0	23	0	0%	0%	24	0	4%	0%	24	0	4%	0%
	SB	19	0	20	0	5%	0%	23	0	21%	0%	24	0	26%	0%
A531 Newcastle Road (between Main Road and A500 Shavington Bypass)	EB	117	2	116	2	-1%	0%	112	5	-4%	150%	124	12	6%	500%
	WB	411	3	415	4	1%	33%	443	7	8%	133%	451	13	10%	333%
A500 Shavington Bypass (between A51 Newcastle Road and B5071 Jack Mills Way)	EB	1,063	34	1,109	31	4%	-9%	1,125	95	6%	179%	1,106	75	4%	121%
	WB	1,575	42	1,576	41	0%	-2%	1,531	107	-3%	155%	1,546	87	-2%	107%
A51 Nantwich Bypass (between A51 Newcastle Road and A534 Crewe Road)	NB	972	32	963	32	-1%	0%	930	99	-4%	209%	938	79	-3%	147%
	SB	966	31	975	31	1%	0%	999	97	3%	213%	989	76	2%	145%
Casey Lane (between Back Lane and Weston Lane)	NB	39	0	41	0	5%	0%	72	0	85%	0%	103	0	164%	0%
	SB	86	1	89	1	3%	0%	96	1	12%	0%	90	1	5%	0%
	EB	18	0	18	0	0%	0%	46	0	156%	0%	60	0	233%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Cemetery Road (between Cemetery Road north and Main Road)	WB	92	0	91	0	-1%	0%	89	0	-3%	0%	89	0	-3%	0%
Cemetery Road (between Whites Lane and Mere Road)	EB	45	0	47	0	4%	0%	72	0	60%	0%	86	0	91%	0%
	WB	19	0	19	0	0%	0%	19	0	0%	0%	19	0	0%	0%
A500 Shavington Bypass (between B5071 Jack Mills Way and A5020 David Whitby Way)	EB	1,337	42	1,381	40	3%	-5%	1,396	104	4%	148%	1,370	83	2%	98%
	WB	1,631	48	1,642	47	1%	-2%	1,615	112	-1%	133%	1,622	93	-1%	94%
A500 Shavington Bypass (between A5020 David Whitby Way and A500 Newcastle Road)	EB	1,188	42	1,186	39	0%	-7%	1,139	110	-4%	162%	1,153	89	-3%	112%
	WB	1,438	63	1,444	62	0%	-2%	1,359	132	-5%	110%	1,383	112	-4%	78%
A500 Newcastle Road (between A500 Shavington Bypass and M6 junction 16)	EB	1,568	42	1,571	40	0%	-5%	1,503	110	-4%	162%	1,523	92	-3%	119%
	WB	1,921	68	1,935	68	1%	0%	1,819	138	-5%	103%	1,877	122	-2%	79%
A51 Nantwich Bypass (between A534 Crewe Road and A530 Middlewich Road)	NB	964	37	977	37	1%	0%	1,006	102	4%	176%	1,001	85	4%	130%
	SB	929	22	949	23	2%	5%	1,011	89	9%	305%	990	68	7%	209%
A5020 David Whitby Way (between A500 Shavington Bypass and B5472 Weston Road)	NB	1,028	29	1,065	29	4%	0%	1,060	37	3%	28%	1,065	34	4%	17%
	SB	1,085	16	1,080	16	0%	0%	1,069	26	-1%	63%	1,097	23	1%	44%
	NB	800	11	781	11	-2%	0%	817	78	2%	609%	834	60	4%	445%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A530 Middlewich Road (between A51 Nantwich Bypass and Colleys Lane)	SB	640	7	621	8	-3%	14%	575	76	-10%	986%	595	55	-7%	686%
A5020 University Way (between A534 Crewe Green Road and A532 Weston Road)	NB	945	8	974	8	3%	0%	948	14	0%	75%	946	13	0%	63%
	SB	911	10	916	10	1%	0%	905	18	-1%	80%	901	17	-1%	70%
A530 Middlewich Road (between Colleys Lane and Wistaston Green Road)	EB	787	11	768	11	-2%	0%	827	81	5%	636%	818	60	4%	445%
	WB	932	9	875	9	-6%	0%	895	78	-4%	767%	914	57	-2%	533%
Barthomley Road (between Radway Green Road and B5077 Butterton Lane)	NB	31	0	31	0	0%	0%	93	1	200%	0%	68	1	119%	0%
	SB	81	0	86	0	6%	0%	108	0	33%	0%	108	0	33%	0%
Weston Road Service Road (between Weston Road south access and Weston Road north access)	EB	26	2	553	7	2027%	250%	26	2	0%	0%	26	2	0%	0%
	WB	68	0	68	0	0%	0%	74	0	9%	0%	74	0	9%	0%
Union Street (between A5078 Edleston Road and Lord Street)	EB	182	1	139	3	-24%	200%	160	3	-12%	200%	130	2	-29%	100%
	WB	78	3	79	3	1%	0%	73	3	-6%	0%	75	3	-4%	0%
Union Street (between Lord Street and A5019 Mill Street)	EB	188	1	146	3	-22%	200%	166	3	-12%	200%	136	2	-28%	100%
	WB	79	3	80	3	1%	0%	73	3	-8%	0%	76	3	-4%	0%
A530 Middlewich Road (between Wistaston Green	NB	736	12	704	11	-4%	-8%	773	80	5%	567%	764	60	4%	400%
	SB	1,222	7	1,150	8	-6%	14%	1,183	77	-3%	1000%	1,197	56	-2%	700%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Road and A532 Coppenhall Lane)															
Wistaston Road (between Flag Lane and Walthall Street)	EB	40	2	8	2	-80%	0%	40	2	0%	0%	39	2	-3%	0%
	WB	267	3	290	3	9%	0%	265	3	-1%	0%	273	3	2%	0%
Coleridge Way (between Hungerford Road and Wordsworth Drive)	NB	108	2	134	2	24%	0%	122	2	13%	0%	145	2	34%	0%
	SB	287	0	284	0	-1%	0%	285	0	-1%	0%	289	0	1%	0%
Sydney Road (between Hungerford Road and Shakespeare Drive)	NB	995	1	1,009	1	1%	0%	987	11	-1%	1000%	994	10	0%	900%
	SB	523	2	527	2	1%	0%	478	12	-9%	500%	489	11	-7%	450%
Shakespeare Drive (between Sydney Road and Laureston Avenue)	EB*	50	0	71	0	42%	0%	58	0	16%	0%	82	0	64%	0%
	WB	257	0	255	0	-1%	0%	253	0	-2%	0%	254	0	-1%	0%
Laureston Avenue (between Shakespeare Drive and Wordsworth Drive)	NB	257	0	255	0	-1%	0%	253	0	-2%	0%	254	0	-1%	0%
	SB*	50	0	71	0	42%	0%	58	0	16%	0%	82	0	64%	0%
Wordsworth Drive (between Kipling Way and Laureston Avenue)	EB	51	0	72	0	41%	0%	59	0	16%	0%	83	0	63%	0%
	WB	257	0	255	0	-1%	0%	253	0	-2%	0%	254	0	-1%	0%
Wordsworth Drive (between Tennyson Avenue and Kipling Way)	EB	53	0	74	0	40%	0%	61	0	15%	0%	84	0	58%	0%
	WB	256	0	254	0	-1%	0%	252	0	-2%	0%	253	0	-1%	0%
	EB	57	0	78	0	37%	0%	65	0	14%	0%	89	0	56%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Wordsworth Drive (between Coleridge Way and Tennyson Avenue)	WB	259	0	257	0	-1%	0%	255	0	-2%	0%	256	0	-1%	0%
Coleridge Way (between Lansdowne Road and Wordsworth Drive)	NB	53	2	58	2	9%	0%	59	2	11%	0%	59	2	11%	0%
	SB	30	0	30	0	0%	0%	32	0	7%	0%	36	0	20%	0%
Lansdowne Road (between Coleridge Way and Pelican Close)	EB	12	2	12	2	0%	0%	13	2	8%	0%	13	2	8%	0%
	WB	20	0	21	0	5%	0%	23	0	15%	0%	26	0	30%	0%
Sydney Road (between Shakespeare Drive and Lansdowne Road)	NB	690	1	706	1	2%	0%	688	11	0%	1000%	696	10	1%	900%
	SB	447	2	430	2	-4%	0%	397	11	-11%	450%	387	11	-13%	450%
Lansdowne Road (between Lansdowne Road and Sydney Road)	EB	15	2	15	2	0%	0%	16	2	7%	0%	16	2	7%	0%
	WB	53	0	49	0	-8%	0%	51	0	-4%	0%	55	0	4%	0%
A530 Middlewich Road (between A532 Coppenhall Lane and Pyms Lane)	NB	631	7	733	7	16%	0%	656	75	4%	971%	653	55	3%	686%
	SB	907	5	934	5	3%	0%	908	74	0%	1380%	915	53	1%	960%
B5076 Middlewich Road (between Elm Drive and Stamp Avenue)	NB	519	1	515	1	-1%	0%	522	6	1%	500%	532	3	3%	200%
	SB	304	13	268	13	-12%	0%	319	18	5%	38%	331	15	9%	15%
Sydney Road (between Herbert Street and Maw Green Road)	NB	666	3	686	3	3%	0%	669	13	0%	333%	676	12	2%	300%
	SB	481	2	464	2	-4%	0%	433	11	-10%	450%	424	11	-12%	450%
	EB	14	0	14	0	0%	0%	30	0	114%	0%	35	0	150%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Stamp Avenue (between Greenway and B5076 Middlewich Street)	WB	128	0	145	0	13%	0%	118	0	-8%	0%	126	0	-2%	0%
B5076 Middlewich Street (between Stamp Avenue and Lime Tree Avenue)	NB	406	1	386	2	-5%	100%	436	6	7%	500%	444	3	9%	200%
	SB	305	13	270	13	-11%	0%	322	18	6%	38%	333	15	9%	15%
Lime Tree Avenue (between B5076 Middlewich Street and Sycamore Avenue)	EB	46	0	47	0	2%	0%	78	0	70%	0%	83	0	80%	0%
	WB	37	0	40	0	8%	0%	40	0	8%	0%	40	0	8%	0%
A530 Middlewich Road (between Pyms Lane and Middlewich Road)	NB	820	6	928	7	13%	17%	824	75	0%	1150%	828	54	1%	800%
	SB	696	4	729	4	5%	0%	677	73	-3%	1725%	690	53	-1%	1225%
Lime Tree Avenue (between Sycamore Avenue and Acer Avenue)	EB	43	0	43	0	0%	0%	75	0	74%	0%	81	0	88%	0%
	WB	35	0	38	0	9%	0%	38	0	9%	0%	38	0	9%	0%
Clay Lane (between Newtons Lane and Maw Lane)	EB	335	1	350	1	4%	0%	389	1	16%	0%	395	1	18%	0%
	WB	36	0	36	0	0%	0%	35	0	-3%	0%	34	0	-6%	0%
Greenway (between Stamp Avenue and B5076 Middlewich Street)	NB	128	0	146	0	14%	0%	121	0	-5%	0%	130	0	2%	0%
	SB	7	0	7	0	0%	0%	7	0	0%	0%	7	0	0%	0%
Lime Tree Avenue (between Prunus Road and Elm Drive)	EB	45	0	45	0	0%	0%	78	0	73%	0%	84	0	87%	0%
	WB	40	0	43	0	8%	0%	42	0	5%	0%	42	0	5%	0%
Elm Drive (between Lime Tree Avenue and Remer Street)	NB	285	12	276	12	-3%	0%	337	12	18%	0%	339	12	19%	0%
	SB	259	3	266	3	3%	0%	308	3	19%	0%	296	3	14%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Lime Tree Avenue (between Acer Avenue and Prunus Road)	EB	44	0	44	0	0%	0%	77	0	75%	0%	83	0	89%	0%
	WB	38	0	40	0	5%	0%	40	0	5%	0%	40	0	5%	0%
B5076 Middlewich Street (between Lime Tree Avenue and Remer Street)	NB	365	1	345	2	-5%	100%	363	6	-1%	500%	365	3	0%	200%
	SB	272	13	235	13	-14%	0%	286	18	5%	38%	297	15	9%	15%
Acer Avenue (between Remer Street and Lime Tree Avenue)	NB	2	0	2	0	0%	0%	2	0	0%	0%	2	0	0%	0%
	SB	1	0	1	0	0%	0%	2	0	100%	0%	2	0	100%	0%
Remer Street (between B5076 Middlewich Street and Acer Avenue)	EB	546	7	563	7	3%	0%	573	12	5%	71%	559	9	2%	29%
	WB	713	14	743	14	4%	0%	691	18	-3%	29%	701	16	-2%	14%
Selworthy Drive (between B5076 Bradfield Road and Underwood Lane)	NB	304	1	266	1	-13%	0%	302	1	-1%	0%	303	1	0%	0%
	SB	114	1	123	1	8%	0%	125	1	10%	0%	116	1	2%	0%
B5076 Middlewich Street (between Broad Street and Remer Street)	EB	807	8	787	8	-2%	0%	838	9	4%	13%	837	9	4%	13%
	WB	1,066	4	1,076	4	1%	0%	1,032	4	-3%	0%	1,047	4	-2%	0%
Newtons Lane (between Clay Lane and Nesfield Drive)	EB	295	1	310	1	5%	0%	352	1	19%	0%	359	1	22%	0%
	WB	12	0	12	0	0%	0%	14	0	17%	0%	14	0	17%	0%
Underwood Lane (between Cliffe Road and Newbury Avenue)	EB	170	4	157	4	-8%	0%	162	4	-5%	0%	164	4	-4%	0%
	WB	98	4	95	4	-3%	0%	100	4	2%	0%	98	4	0%	0%
	EB	298	1	317	1	6%	0%	356	1	19%	0%	362	1	21%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Newtons Lane (between Nesfield Drive and Crewe Road)	WB	54	0	59	0	9%	0%	68	0	26%	0%	67	0	24%	0%
Underwood Lane (between Newbury Avenue and Pear Tree Avenue)	NB	163	4	150	4	-8%	0%	156	4	-4%	0%	158	4	-3%	0%
	SB	97	4	94	4	-3%	0%	103	4	6%	0%	101	4	4%	0%
Stoneley Road (between B5076 Broad Street and Waldron's Lane)	NB	53	0	52	0	-2%	0%	44	0	-17%	0%	43	0	-19%	0%
	SB	8	0	13	0	63%	0%	9	0	13%	0%	9	0	13%	0%
B5076 North Street (between Broughton Road and Broad Street)	EB	668	9	661	8	-1%	-11%	645	9	-3%	0%	657	9	-2%	0%
	WB	834	3	843	4	1%	33%	805	3	-3%	0%	817	3	-2%	0%
Underwood Lane (between Pear Tree Avenue and B5076 Bradfield Road)	NB	159	4	145	4	-9%	0%	152	4	-4%	0%	154	4	-3%	0%
	SB	97	4	94	4	-3%	0%	103	4	6%	0%	102	4	5%	0%
B5076 Bradfield Road (between Underwood Lane and Broughton Road)	EB	637	8	625	8	-2%	0%	607	9	-5%	13%	619	9	-3%	13%
	WB	770	2	776	3	1%	50%	744	2	-3%	0%	758	3	-2%	50%
B5076 Bradfield Road (between Selworthy Drive and Mablins Lane)	EB	499	8	539	8	8%	0%	503	8	1%	0%	511	8	2%	0%
	WB	354	5	394	5	11%	0%	315	5	-11%	0%	331	5	-6%	0%
B5076 Bradfield Road (between Mablins Lane and Cliffe Road)	EB	597	15	643	15	8%	0%	616	16	3%	7%	618	16	4%	7%
	WB	645	10	692	10	7%	0%	607	9	-6%	-10%	621	10	-4%	0%
	EB	682	12	711	12	4%	0%	705	13	3%	8%	710	12	4%	0%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5076 Bradfield Road (between Cliffe Road and Underwood Lane)	WB	689	6	726	7	5%	17%	704	6	2%	0%	714	6	4%	0%
Broughton Road (between Maplins Moss Place and Parkers Road)	NB	120	1	120	1	0%	0%	117	2	-3%	100%	116	2	-3%	100%
	SB	87	0	88	0	1%	0%	94	2	8%	0%	95	2	9%	0%
Groby Road (between Remer Street and Stoneley Road)	NB	223	1	207	1	-7%	0%	253	9	13%	800%	253	9	13%	800%
	SB	131	0	140	0	7%	0%	196	9	50%	0%	195	9	49%	0%
A530 Middlewich Road (between Middlewich Road and Smithy Lane)	NB	728	6	806	6	11%	0%	745	74	2%	1133%	746	54	2%	800%
	SB	532	4	547	4	3%	0%	530	73	0%	1725%	542	52	2%	1200%
B5076 Bradfield Road (between Parkers Road and Selworthy Drive)	NB	437	4	474	4	8%	0%	380	4	-13%	0%	408	4	-7%	0%
	SB	458	4	542	4	18%	0%	457	4	0%	0%	467	4	2%	0%
Stoneley Road (between Waldron's Lane and Groby Road)	EB	6	0	7	0	17%	0%	64	0	967%	0%	64	0	967%	0%
	WB	47	0	48	0	2%	0%	50	0	6%	0%	51	0	9%	0%
B5076 Bradfield Road (between Parkers Road and B5076 Flowers Lane)	EB	888	13	998	13	12%	0%	938	21	6%	62%	935	21	5%	62%
	WB	546	11	584	11	7%	0%	491	19	-10%	73%	537	19	-2%	73%
Parkers Road (between B5076 Bradfield Road and Higher Croft Drive)	EB	510	9	538	9	5%	0%	558	18	9%	100%	548	18	7%	100%
	WB	154	7	157	7	2%	0%	152	15	-1%	114%	172	15	12%	114%
	EB	538	9	568	9	6%	0%	588	18	9%	100%	576	18	7%	100%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Parkers Road (between Higher Croft Drive and Parkfield)	WB	249	7	254	7	2%	0%	249	15	0%	114%	268	15	8%	114%
Parkers Road (between Parkfield and Mablins Lane)	EB	515	10	545	10	6%	0%	564	18	10%	80%	553	18	7%	80%
	WB	283	7	288	7	2%	0%	283	15	0%	114%	302	15	7%	114%
A530 Middlewich Road (between Smithy Lane and B5076 Flowers Lane)	NB	458	11	433	11	-5%	0%	455	79	-1%	618%	463	59	1%	436%
	SB	395	7	375	7	-5%	0%	440	76	11%	986%	432	56	9%	700%
Waldron's Lane (between Stoneley Road and Warmingham Road)	NB	109	0	109	0	0%	0%	104	0	-5%	0%	103	0	-6%	0%
	SB	20	0	26	0	30%	0%	79	0	295%	0%	78	0	290%	0%
Parkers Road (between Mablins Lane and Broughton Road)	EB	480	5	513	5	7%	0%	540	13	13%	160%	521	13	9%	160%
	WB	271	3	278	3	3%	0%	294	12	8%	300%	303	12	12%	300%
Groby Road (between Stoneley Road and Warmingham Road)	NB	534	1	518	1	-3%	0%	561	9	5%	800%	560	9	5%	800%
	SB	148	0	158	0	7%	0%	157	9	6%	0%	155	9	5%	0%
Warmingham Road (between Broughton Road and Waldron's Lane)	EB	430	6	461	6	7%	0%	634	13	47%	117%	657	14	53%	133%
	WB	287	3	293	3	2%	0%	294	11	2%	267%	297	11	3%	267%
B5076 Flowers Lane (between A530 Middlewich Road and B5076 Bradfield Road)	EB	840	13	944	12	12%	-8%	872	21	4%	62%	871	21	4%	62%
	WB	575	11	607	11	6%	0%	502	19	-13%	73%	549	19	-5%	73%
	EB	485	6	514	6	6%	0%	623	14	28%	133%	645	14	33%	133%

Location	Direction	2030 baseline flows		2030 AP1 revised scheme flows - utilities scenario		Utilities scenario - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 1		Scenario 1 - % change from 2030 baseline		2030 AP1 revised scheme flows - scenario 2		Scenario 2 - % change from 2030 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Warmingham Road (between Waldron's Lane and Groby Road)	WB	254	3	265	3	4%	0%	259	11	2%	267%	261	11	3%	267%
A530 Middlewich Road (between B5076 Flowers Lane and Eardswick Lane)	NB	840	15	828	14	-1%	-7%	768	76	-9%	407%	803	57	-4%	280%
	SB	595	8	580	8	-3%	0%	635	71	7%	788%	629	51	6%	538%
A530 Middlewich Road (between Eardswick Lane and Brookhouse Lane)	NB	486	4	451	3	-7%	-25%	516	64	6%	1500%	545	45	12%	1025%
	SB	375	4	345	4	-8%	0%	380	65	1%	1525%	385	45	3%	1025%
B5074 Over Road/B5074 Swanlow Lane (between Cross Lane and Moor Lane)	NB	537	5	598	3	11%	-40%	569	4	6%	-20%	571	3	6%	-40%
	SB	404	4	461	4	14%	0%	552	5	37%	25%	538	5	33%	25%

**Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment*

Figure 13-1: MA01 traffic flow changes between 2030 future baseline and AP1 revised scheme utilities scenario, AM peak hour

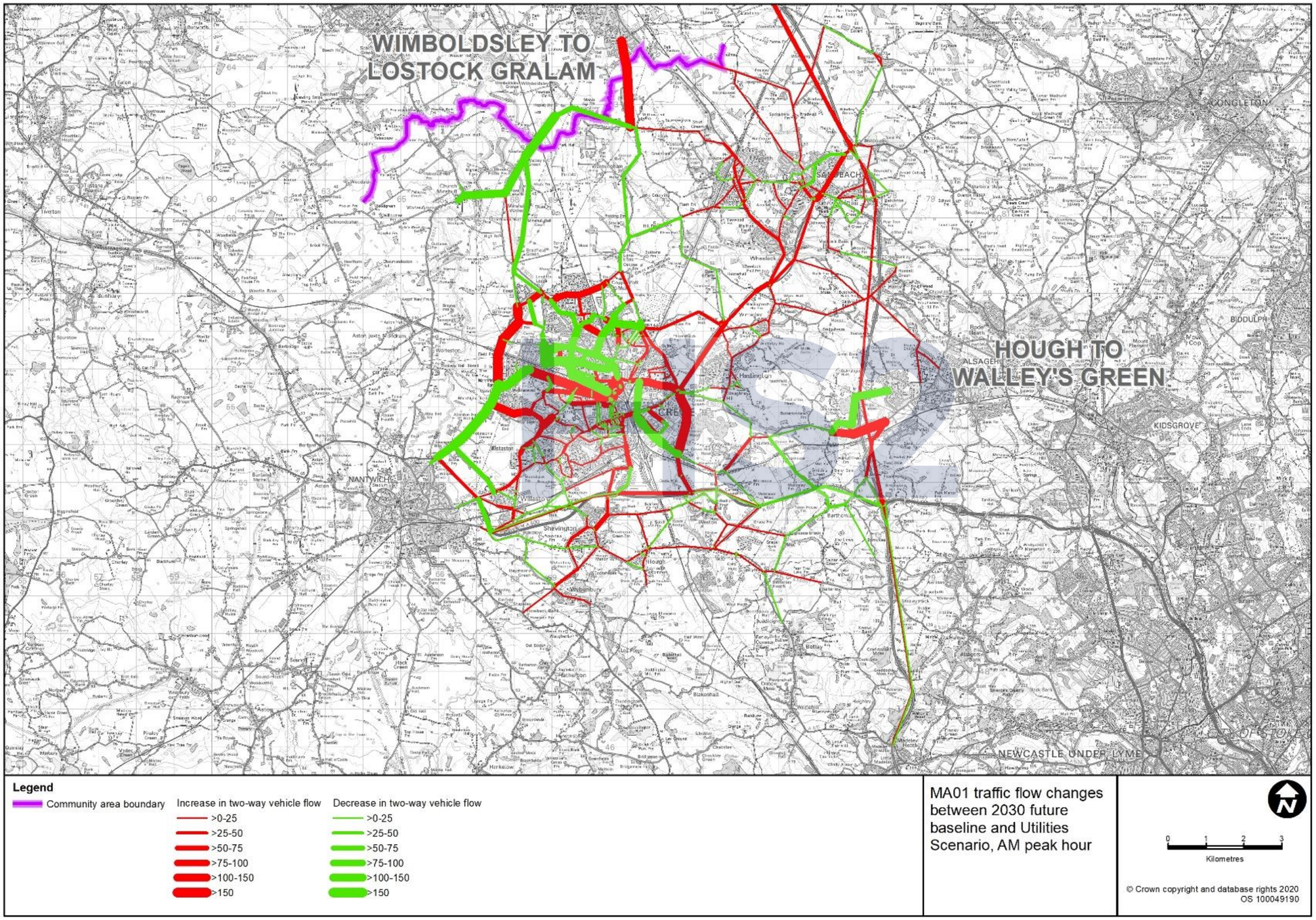


Figure 13-2: MA01 traffic flow changes between 2030 future baseline and AP1 revised scheme utilities scenario, PM peak hour

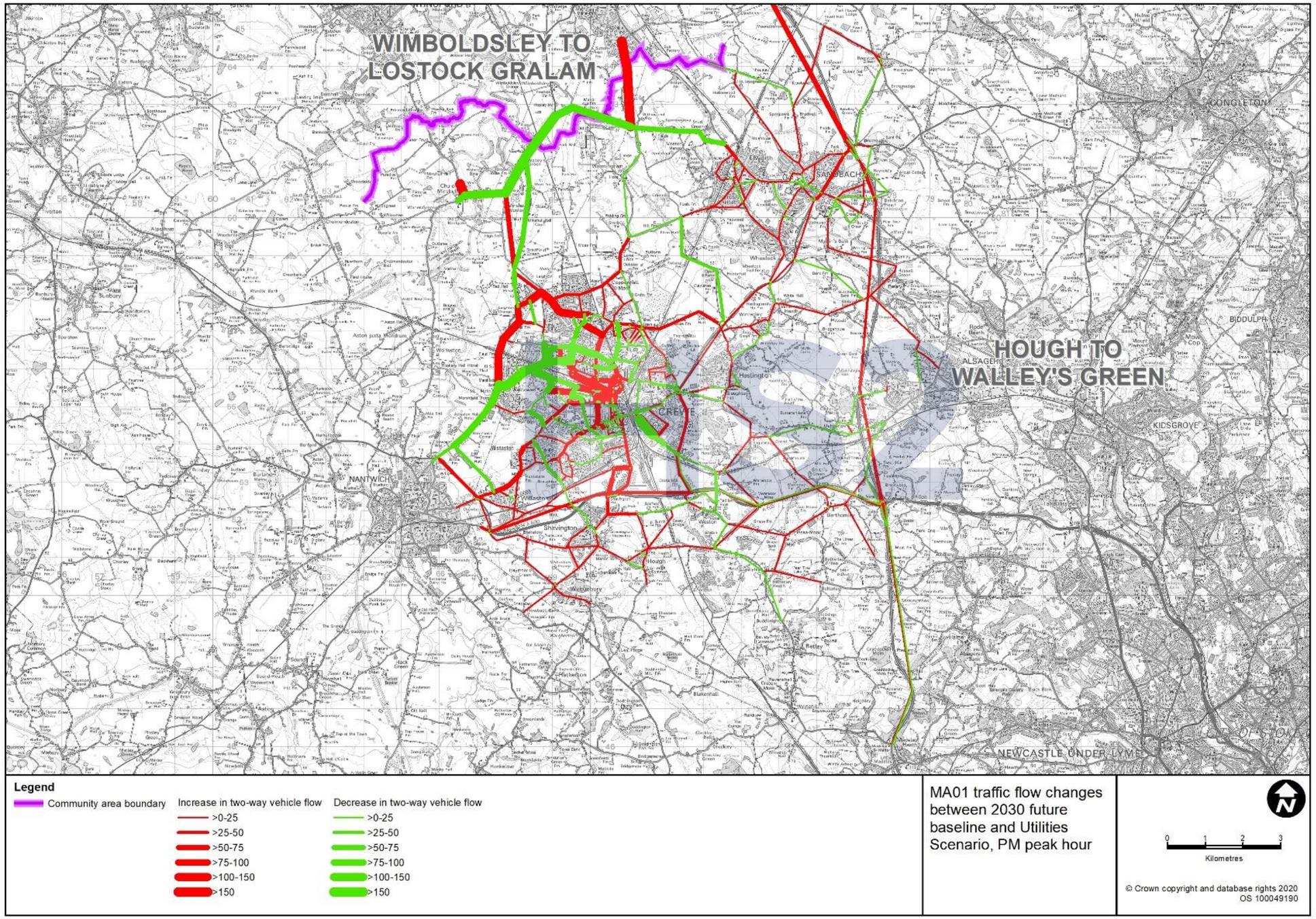


Figure 13-3: MA01 traffic flow changes between 2030 future baseline and AP1 revised scheme scenario 1, AM peak hour

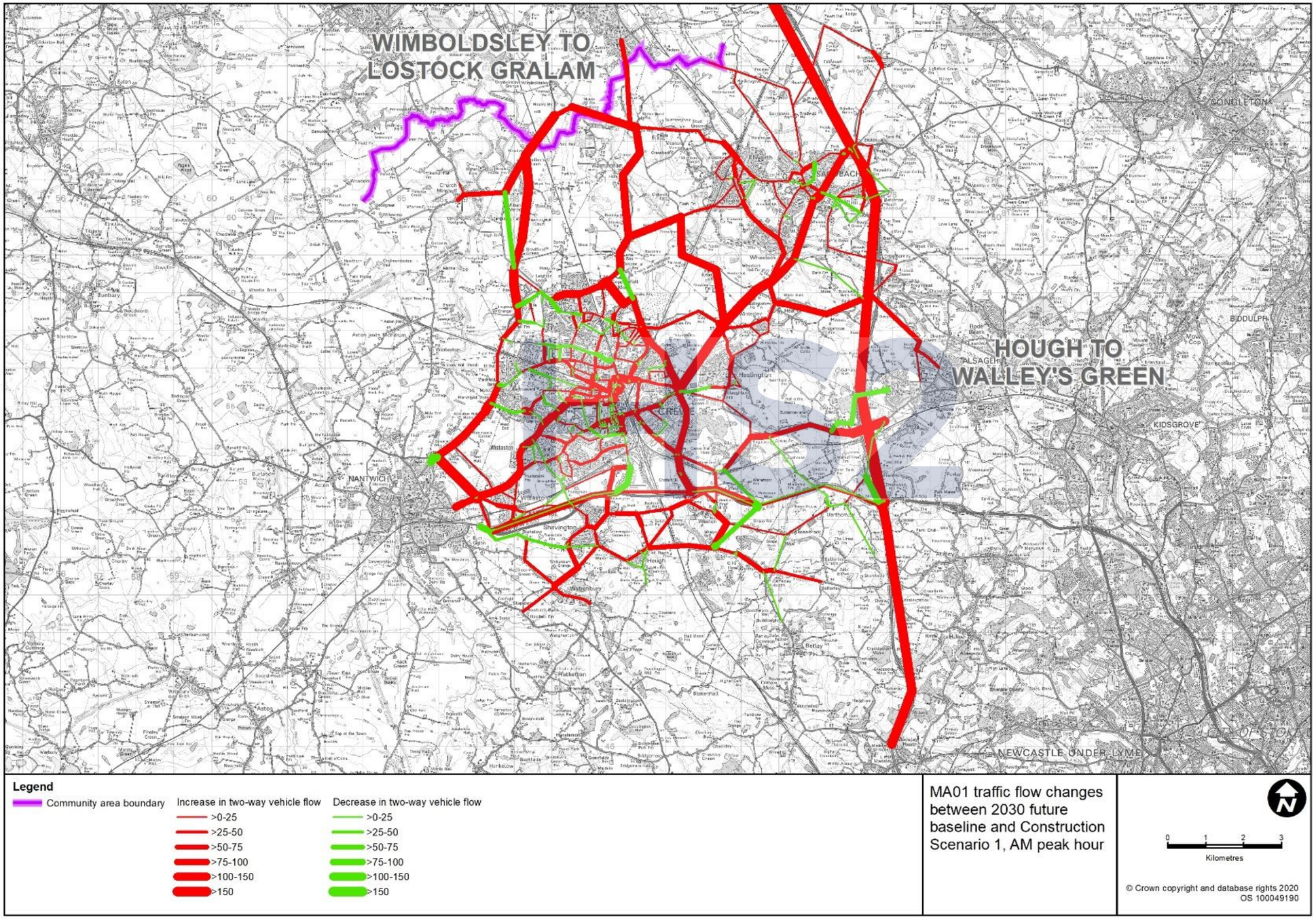


Figure 13-4: MA01 traffic flow changes between 2030 future baseline and AP1 revised scheme scenario 1, PM peak hour

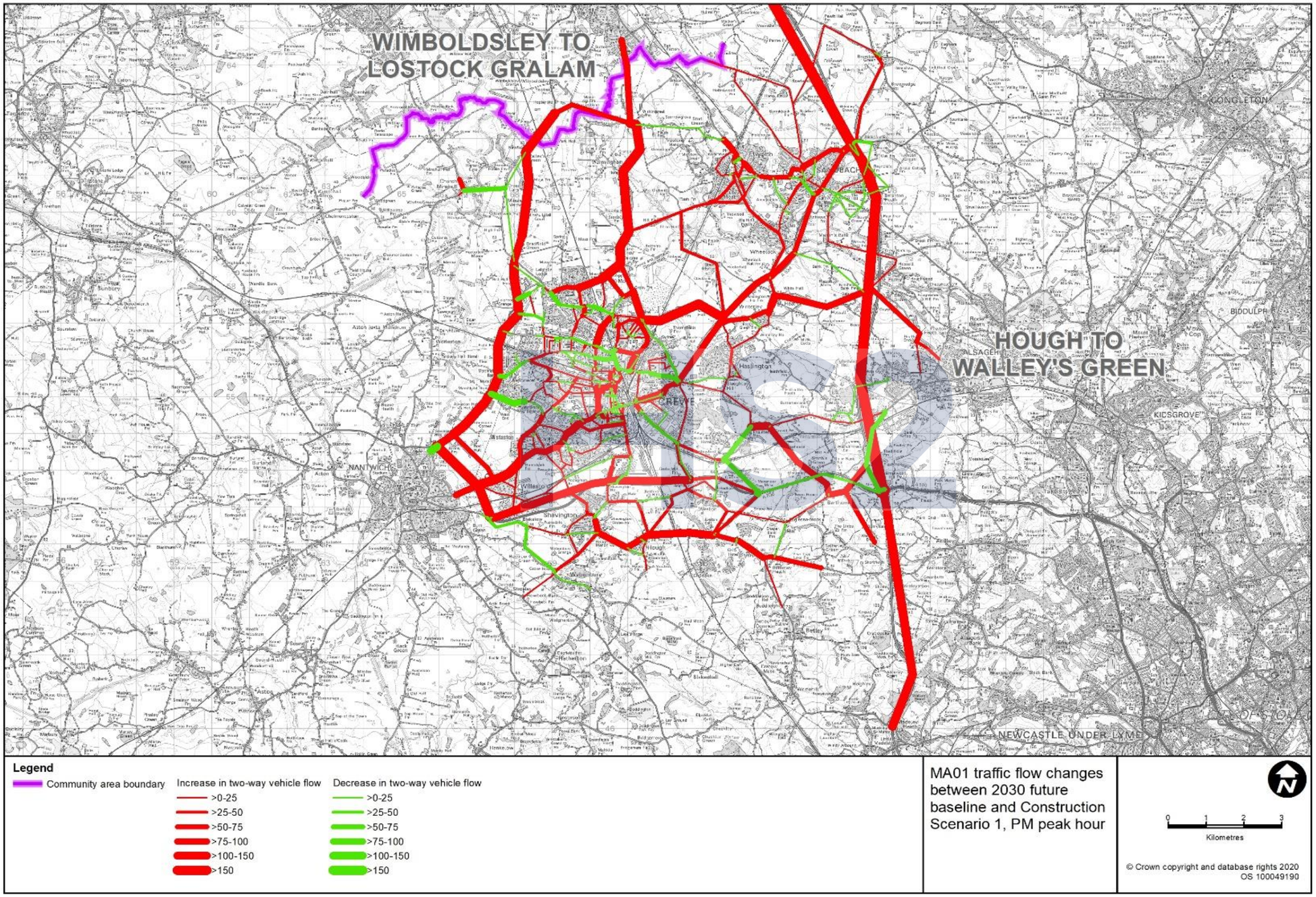


Figure 13-5: MA01 traffic flow changes between 2030 future baseline and AP1 revised scheme scenario 2, AM peak hour

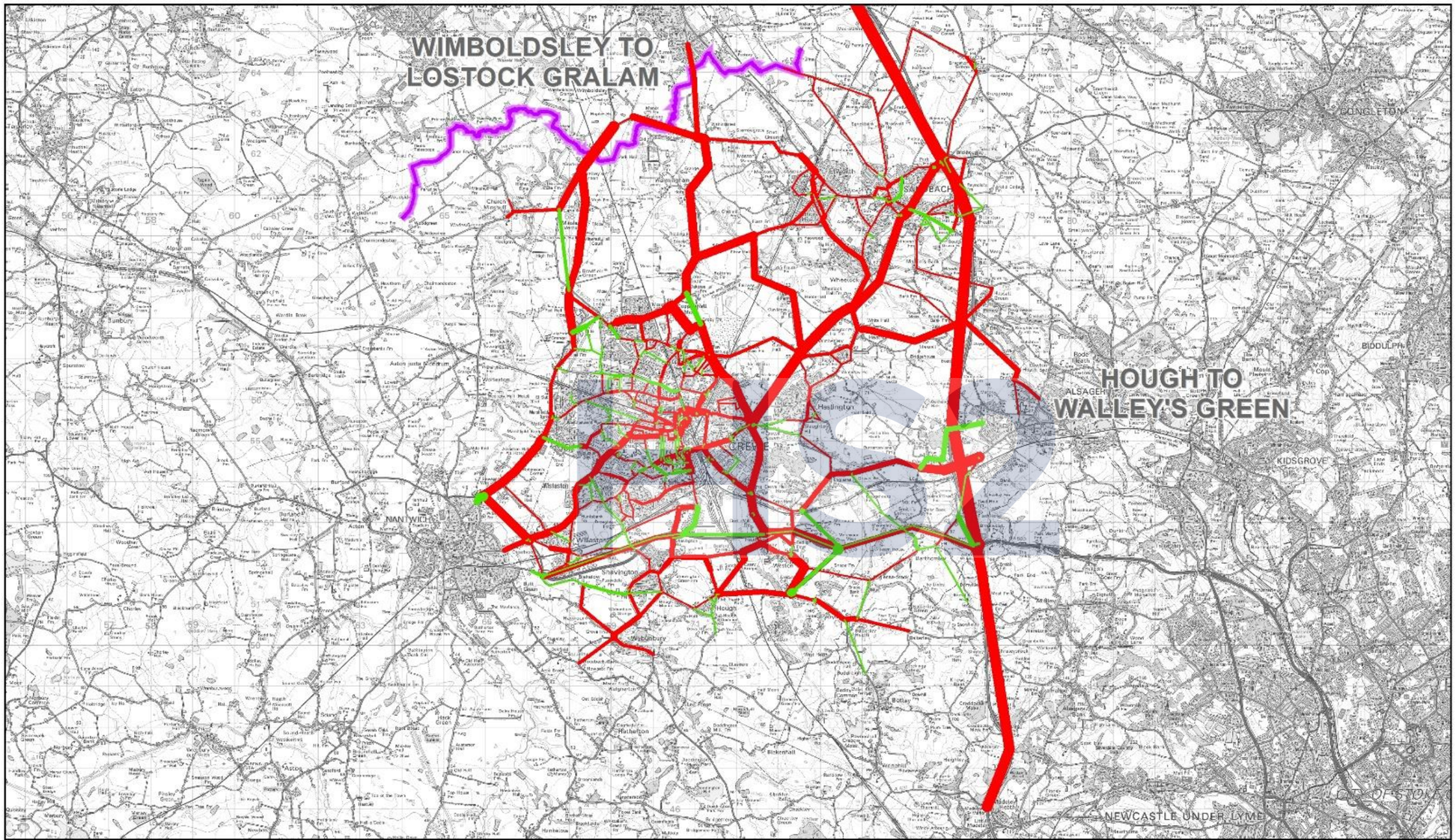
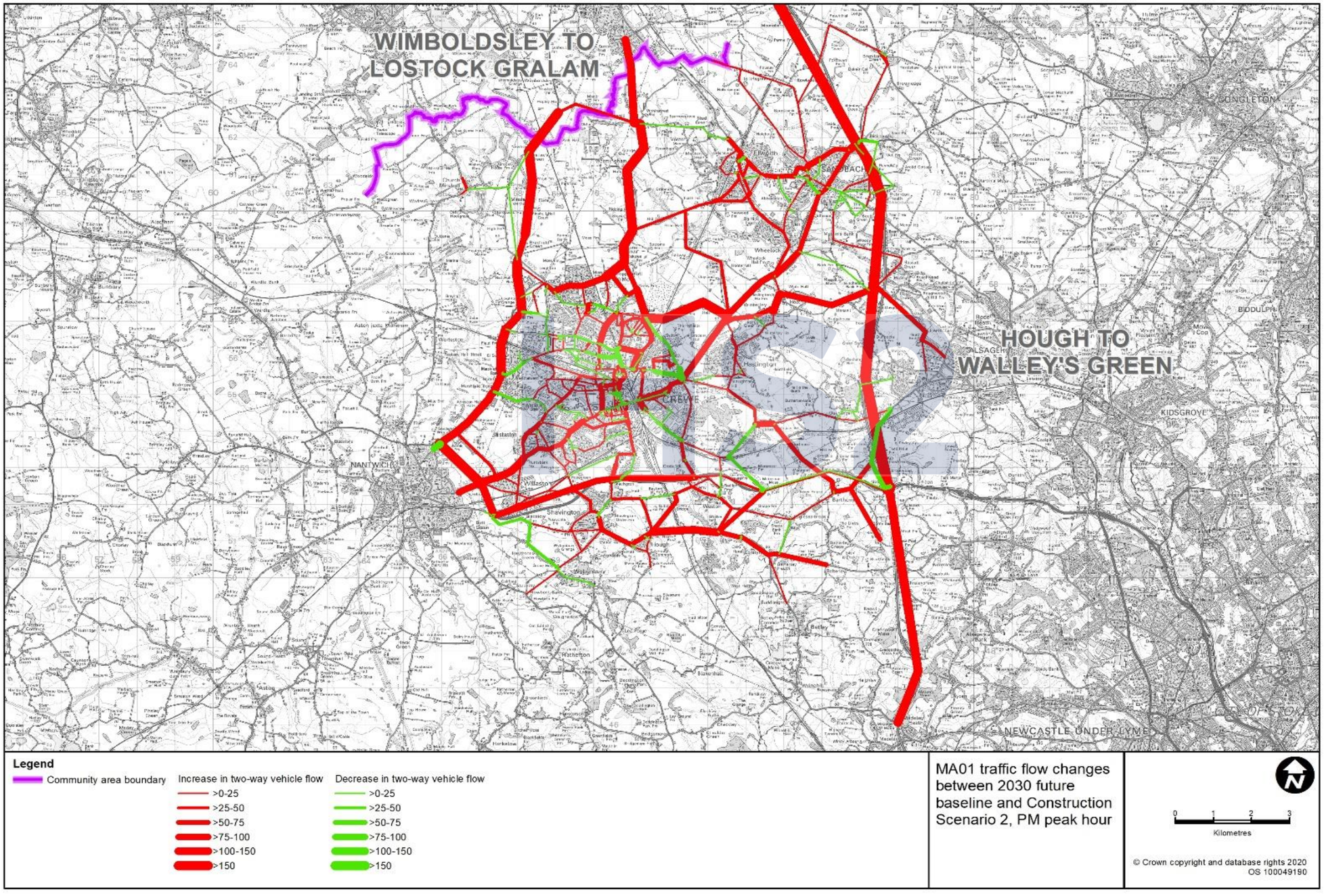


Figure 13-6: MA01 traffic flow changes between 2030 future baseline and AP1 revised scheme scenario 2, PM peak hour



Junction performance

10.2.23 Junction capacity analysis is reported in Section 13.3 of the main TA. Updated junction capacity analysis has been undertaken for the AM and PM peak hours comparing junction operation in the 2030 future baseline scenario with the modelled scenarios for the AP1 revised scheme.

10.2.24 The following tables and commentary set out the performance at junctions where there is the potential for the AP1 revised scheme to have substantial impacts, including new temporary junctions and those junctions where temporary or permanent changes are proposed.

10.2.25 The results are presented from south to north through the MA01 area, firstly for junctions on the strategic road network, followed by junctions on other roads. The 2030 future baseline results are included for comparison. The models developed to assess the existing and future baseline have been used, except where otherwise stated. Where there are changes to infrastructure compared to the main TA, these are highlighted.

10.2.26 The results are presented in the same order as presented in the main TA.

10.2.27 Where relevant, the impacts are presented for the baseline excluding HS2 Phase 2a, for the baseline including HS2 Phase 2a and for the AP1 revised scheme in combination with HS2 Phase 2a. The impact of the AP1 revised scheme in isolation can be assessed by comparing the results with the AP1 revised scheme and HS2 Phase 2a against those for HS2 Phase 2a only. The combined impact can be assessed by comparing the combined results against the future baseline without HS2 Phase 2a.

10.2.28 It should be noted that the assessments consider the peak level of construction traffic in each location, for each scenario, and these conditions will not be present across the whole construction period.

10.2.29 Due to the negligible number of construction traffic movements during the utilities scenario, junction capacity analysis is reported for the utilities scenario at only those junctions forecast to experience an impact as a result of the AP1 revised scheme.

10.2.30 The junction performance tables presented in this report use the following abbreviations: PCU = Passenger Car Unit; VoC = Volume over Capacity; DoS = Degree of Saturation; RFC = Ratio of Flow to Capacity; and Q = Queue.

M6 junction 16/A500 Newcastle Road/B5078 Radway Green Road/A500 (Barthomley Interchange) junction

10.2.31 Table 13-9 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-9 of the main TA is replaced by Table 13-9 below.

Table 13-9: M6 junction 16/A500 Newcastle Road/B5078 Radway Green/A500 (Barthomley Interchange) junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5078 Radway Green Road	234	104%	6	234	107%	6	196	107%	5	200	106%	5
M6 junction 16 off-slip (north)	1,310	72%	10	1,312	72%	10	1,591	88%	13	1,533	85%	12
A500 (east)	2,273	99%	12	2,276	99%	12	2,286	99%	12	2,281	99%	12
M6 junction 16 off-slip (south)	733	48%	6	733	48%	6	771	50%	7	798	52%	7
A500 Newcastle Road	1,650	91%	14	1,650	91%	14	1,650	91%	14	1,650	91%	14
17:00–18:00	**2030 future baseline**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5078 Radway Green Road	234	106%	6	234	107%	6	190	108%	5	196	108%	5
M6 junction 16 off-slip (north)	1,403	67%	10	1,421	68%	11	1,793	86%	13	1,695	81%	13
A500 (east)	1,938	99%	11	1,937	99%	11	1,947	100%	12	1,951	100%	12
M6 junction 16 off-slip (south)	851	55%	7	850	55%	7	895	58%	8	894	58%	8
A500 Newcastle Road	1,650	91%	14	1,650	91%	14	1,650	91%	14	1,650	91%	14

10.2.32 The conclusions drawn in paragraphs 13.3.25 and 13.3.26 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP1 revised scheme.

In the utilities scenario, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the B5078 Radway Green Road approach from 104% in the future baseline to 107% in the AM peak hour, with no change in corresponding queue.

In scenarios 1 and 2 the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the B5078 Radway Green Road approach from 106% in the future baseline to 108%, with a corresponding change in queue length from six PCU in the future baseline to five PCU."

M6 junction 17/A534 Congleton Road junction

10.2.33 Table 13-10 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-10 of the main TA is replaced by Table 13-10 below.

Table 13-10: M6 junction 17/A534 Congleton Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
M6 southbound off-slip (junction 17)	327	58%	4	455	81%	5	469	84%	5
A534 Congleton Road (east)	602	100%	7	602	100%	7	602	100%	7
A534 Congleton Road (east) (left slip)	268	25%	0	254	24%	0	257	24%	0
M6 northbound off-slip (junction 17) (roundabout entry)	268	35%	0	245	38%	0	250	39%	0
M6 northbound off-slip (junction 17) (left slip)	136	20%	0	167	28%	0	157	27%	0
A534 Old Mill Road (west)	808	64%	0	817	64%	0	815	65%	0
A534 Old Mill Road (motorway overbridge eastbound)	1,075	91%	9	1,062	90%	9	1,065	90%	9
A534 Old Mill Road (motorway overbridge westbound)	927	57%	0	1,055	64%	0	1,069	65%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
M6 southbound off-slip (junction 17)	445	94%	7	451	95%	7	450	95%	7
A534 Congleton Road (east)	640	89%	8	658	91%	8	656	91%	8
A534 Congleton Road (east) (left slip)	450	40%	0	408	37%	0	419	38%	0
M6 northbound off-slip (junction 17) (roundabout entry)	424	71%	4	407	71%	4	407	71%	4
M6 northbound off-slip (junction 17) (left slip)	268	42%	1	270	43%	1	271	43%	1
A534 Old Mill Road (west)	701	70%	2	734	72%	2	738	73%	2
A534 Old Mill Road (motorway overbridge eastbound)	1,125	74%	11	1,141	76%	11	1,145	76%	11
A534 Old Mill Road (motorway overbridge westbound)	1,085	66%	1	1,109	68%	1	1,106	67%	1

10.2.34 The conclusions drawn in paragraphs 13.3.28 to 13.3.30 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A534 Congleton Road (east) approach from 89% in the future baseline to 91%, with no change in corresponding queue length.

Following discussions with National Highways, it is understood that queues on the M6 southbound off-slip at this junction may extend back to the M6 mainline at peak times. While the assessment shows that this approach will continue to operate within its theoretical capacity with the AP1 revised scheme, further discussions are ongoing with National Highways recognising the concerns raised regarding impacts associated with potential blocking back on this approach."

A500 Shavington Bypass/A51 Newcastle Road/A51 Nantwich Bypass (Cheerbrook Roundabout) junction

10.2.35 Table 13-11 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-11 of the main TA is replaced by Table 13-11 below.

Table 13-11: A500 Shavington Bypass/A51 Newcastle Road/A51 Nantwich Bypass (Cheerbrook Roundabout) junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A51 Nantwich Bypass	750	67%	1	763	66%	1	749	66%	1
Cheerbrook Road	319	47%	1	304	90%	3	307	91%	3
A500 Shavington Bypass	1,270	68%	0	1,354	70%	0	1,322	69%	0
Newcastle Road	459	60%	1	422	58%	1	455	61%	1
A51 Newcastle Road	1,178	94%	4	1,129	93%	4	1,152	93%	4
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A51 Nantwich Bypass	1,023	66%	1	1,136	74%	1	1,101	71%	1
Cheerbrook Road	162	22%	0	173	27%	0	171	25%	0
A500 Shavington Bypass	1,656	101%	9	1,692	103%	9	1,683	103%	9
Newcastle Road	351	62%	1	331	60%	1	336	60%	1
A51 Newcastle Road	680	57%	1	689	59%	1	680	58%	1

10.2.36 The conclusions drawn in paragraphs 13.3.32 and 13.3.33 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP1 revised scheme.

In scenario 2 the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the Cheerbrook Roach approach from 47% in the future baseline to 91% in the AM peak hour, with a corresponding change in queue length from one PCU in the future baseline to three PCU. In the PM peak hour, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the A500 Shavington Bypass approach from 101% in the future baseline to 103%, with no change in corresponding queue length."

A500 Newcastle Road/A500 Shavington Bypass/A531 Newcastle Road/B5472 Weston Road (Meremoor Moss Roundabout) junction

10.2.37 Table 13-12 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-12 of the main TA is replaced by Table 13-12 below.

Table 13-12: A500 Newcastle Road/A500 Shavington Bypass/A531 Newcastle Road/B5472 Weston Road (Meremoor Moss Roundabout) junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5472 Weston Road	348	95%	3	352	97%	3	362	99%	4	363	97%	3
A500 Newcastle Road	1,979	61%	0	1,956	61%	0	2,028	62%	0	2,052	63%	0
A531 Newcastle Road	285	95%	4	289	95%	4	166	105%	3	167	106%	3
A500 Shavington Bypass	1,159	65%	0	1,167	65%	0	1,249	64%	0	1,256	64%	0
17:00–18:00	**2030 future baseline**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5472 Weston Road	386	105%	4	389	106%	4	402	109%	4	401	109%	4
A500 Newcastle Road	2,042	60%	0	2,057	61%	0	2,027	60%	0	2,065	61%	0
A531 Newcastle Road	121	35%	0	120	35%	0	120	70%	1	141	83%	2
A500 Shavington Bypass	1,264	101%	4	1,258	101%	4	1,297	104%	3	1,284	105%	3

10.2.38 The conclusions drawn in paragraphs 13.3.35 and 13.3.36 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and over capacity with the AP1 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP1 revised scheme.

In scenario 2, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the A531 Newcastle Road approach from 95% in the future baseline to 106% in the AM peak hour, with a corresponding change in queue length from four PCU in the future baseline to three PCU.

In scenarios 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the B5472 Weston Road approach from 105% in the future baseline to 109%, with no change in corresponding queue length."

A51 Nantwich Bypass/A534 Crewe Road/B5338 Crewe Road/Park Road

10.2.39 Table 13-13 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-13 of the main TA is replaced by Table 13-13 below.

Table 13-13: A51 Nantwich Bypass/A534 Crewe Road/B5338 Crewe Road/Park Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A51 Nantwich Bypass (north)	600	35%	0	723	42%	0	695	40%	0
A534 Crewe Road	744	49%	0	817	57%	0	800	55%	0
Park Road	98	20%	0	114	27%	0	99	23%	0
A51 Nantwich Bypass (south)	1,039	87%	2	1,056	88%	2	1,049	87%	2
B5338 Crewe Road	519	94%	4	511	97%	5	517	97%	5
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A51 Nantwich Bypass (north)	974	51%	0	1,132	61%	0	1,088	57%	0
A534 Crewe Road	803	67%	1	969	91%	3	927	84%	2
Park Road	122	35%	0	124	51%	1	125	46%	1
A51 Nantwich Bypass (south)	1,031	86%	2	1,070	89%	3	1,054	88%	2
B5338 Crewe Road	376	63%	1	386	73%	1	385	69%	1

10.2.40 The conclusions drawn in paragraphs 13.3.38 to 13.3.42 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the B5338 Crewe Road approach from 94% in the future baseline to 97% in the AM peak hour, with a corresponding change in queue length from four PCU in the future baseline to five PCU.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A534 Crewe Road approach from 67% in the future baseline to 91%, with a corresponding change in queue length from one PCU in the future baseline to three PCU."

A500 Shavington Bypass/B5071 Jack Mills Way junction

10.2.41 Table 13-14 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-14 of the main TA is replaced by Table 13-14 below.

Table 13-14: A500 Shavington Bypass/B5071 Jack Mills Way junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5071 Jack Mills Way	585	60%	1	594	62%	1	593	61%	1
A500 Shavington Bypass (east)	1,574	72%	0	1,588	73%	0	1,547	71%	0
B5071	267	36%	0	263	36%	0	276	36%	0
A500 Shavington Bypass (west)	1,550	91%	2	1,550	87%	1	1,550	87%	1
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5071 Jack Mills Way	796	63%	1	786	69%	1	795	68%	1
A500 Shavington Bypass (east)	1,722	89%	1	1,784	91%	2	1,768	91%	2
B5071	194	37%	0	169	33%	0	169	33%	0
A500 Shavington Bypass (west)	1,125	60%	0	1,263	66%	0	1,219	64%	0

10.2.42 The conclusions drawn in paragraphs 13.3.44 and 13.3.45 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the original scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A500 Shavington Bypass (east) approach from 89% in the future baseline to 91%, with a corresponding change in queue length from one PCU in the future baseline to two PCU."

A500 Shavington Bypass/A5020 David Whitby Way

10.2.43 Table 13-15 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-15 of the main TA is replaced by Table 13-15 below.

Table 13-15: A500 Shavington Bypass/A5020 David Whitby Way junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A5020 David Whitby Way	429	38%	0	458	41%	0	537	51%	1	536	50%	1
A500 Shavington Bypass (east)	1,550	81%	1	1,550	83%	1	1,550	87%	1	1,550	85%	1
A500 Shavington Bypass (west)	1,704	88%	1	1,752	90%	1	1,736	94%	3	1,719	95%	3
17:00–18:00	**2030 future baseline**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A5020 David Whitby Way	1,112	76%	1	1,107	76%	1	1,107	80%	1	1,134	79%	1
A500 Shavington Bypass (east)	1,545	95%	4	1,550	96%	4	1,550	98%	6	1,550	97%	5
A500 Shavington Bypass (west)	1,415	77%	1	1,457	80%	1	1,552	84%	1	1,499	81%	1

10.2.44 The conclusions drawn in paragraphs 13.3.47 and 13.3.48 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

In scenario 2, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the A500 Shavington Bypass (west) approach from 88% in the future baseline to 95% in the AM peak hour, with a corresponding change in queue length from one PCU in the future baseline to three PCU.

In scenario 1, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A500 Shavington Bypass (east) approach from 95% in the future baseline to 98%, with a corresponding change in queue length from four PCU in the future baseline to six PCU."

A530 Middlewich Road/A51 Nantwich Bypass/B334 Middlewich Road (Alvaston Roundabout) junction

10.2.45 Table 13-16 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-16 of the main TA is replaced by Table 13-16 below.

Table 13-16: A530 Middlewich Road/A51 Nantwich Bypass/B5334 Middlewich Road (Alvaston Roundabout) junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Alvaston Business Park Approach	20	3%	0	20	3%	0	20	3%	0
A530 Middlewich Road	875	107%	6	904	109%	6	894	109%	6
A51 Nantwich Bypass (east)	1,110	93%	3	1,170	97%	5	1,158	97%	5
B5334 Middlewich Road	985	81%	2	1,040	90%	4	1,047	89%	4
A51 Nantwich Bypass (west)	632	106%	7	571	106%	7	577	107%	7
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Alvaston Business Park Approach	130	16%	0	130	19%	0	130	19%	0
A530 Middlewich Road	661	108%	7	683	113%	7	677	112%	7
A51 Nantwich Bypass (east)	1,029	86%	2	1,151	96%	3	1,125	94%	3
B5334 Middlewich Road	629	41%	0	618	43%	0	625	44%	0
A51 Nantwich Bypass (west)	1,079	67%	1	1,094	68%	1	1,088	68%	1

10.2.46 The conclusions drawn in paragraphs 13.3.50 and 13.3.51 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP1 revised scheme.

In scenario 1, the change in traffic due to construction of the AP1 revised scheme in the AM peak hour will increase the VoC on the B5334 Middlewich Road approach from 81% in the future baseline to 90%, with a corresponding change in queue lengths from two PCU to four PCU.

In scenario 1, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A51 Nantwich Bypass (east) approach from 86% in the future baseline to 96%, with a corresponding change in queue length from two PCU in the future baseline to three PCU."

A532 Weston Road/A5020 University Way/A5020 David Whitby Way/B5472 Weston Road/Savoy Road junction

10.2.47 Table 13-17 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-17 of the main TA is replaced by Table 13-17 below.

Table 13-17: A532 Weston Road/A5020 University Way/A5020 David Whitby Way/B5472 Weston Road/Savoy Road junction 2030 future baseline and with AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario (existing layout)**			**AP1 revised scheme scenario 1 (proposed layout)**			**AP1 revised scheme scenario 2 (proposed layout)**		
A5020 University Way	684	35%	0	817	40%	0	727	39%	0	716	38%	0
B5472 Weston Road	1,094	91%	2	1,109	92%	2	1,133	94%	3	1,136	95%	3
A5020 David Whitby Way	949	87%	3	981	92%	4	986	92%	4	1,000	93%	4
Savoy Road	53	23%	0	53	25%	0	53	25%	0	53	25%	0
A532 Weston Road	362	24%	0	253	17%	0	404	28%	0	393	27%	0
17:00–18:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario (existing layout)**			**AP1 revised scheme scenario 1 (proposed layout)**			**AP1 revised scheme scenario 2 (proposed layout)**		
A5020 University Way	940	95%	5	944	93%	4	942	95%	5	938	95%	5
B5472 Weston Road	243	21%	0	238	21%	0	262	22%	0	263	23%	0
A5020 David Whitby Way	1,084	51%	0	1,122	53%	0	1,126	53%	0	1,127	53%	0
Savoy Road	129	26%	0	129	27%	0	129	27%	0	129	27%	0
A532 Weston Road	1,206	103%	10	1,162	101%	10	1,172	105%	10	1,174	105%	10

10.2.48 The conclusions drawn in paragraphs 13.3.53 to 13.3.55 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the AP1 revised Scheme.

In scenario 2, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the A5020 David Whitby Way approach from 87% in the future baseline to 93% in the AM peak hour, with a corresponding change in queue length from three PCU in the future baseline to four PCU.

In scenarios 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A532 Weston Road approach from 103% in the future baseline to 105%, with no change in corresponding queue length."

Valley Road/Wistaston Green Road junction

10.2.49 Table 13-18 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-18 of the main TA is replaced by Table 13-18 below.

Table 13-18: Valley Road/Wistaston Green Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Wistaston Green Road	408	53%	0	404	55%	0	414	56%	0
Valley Road (north)	297	34%	0	379	43%	0	364	41%	0
Valley Road (south)	720	68%	0	735	70%	0	745	71%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Wistaston Green Road	723	81%	1	720	82%	1	711	81%	1
Valley Road (north)	679	95%	3	692	98%	5	695	97%	4
Valley Road (south)	607	69%	0	627	70%	0	618	69%	0

10.2.50 The conclusions drawn in paragraphs 13.3.57 to 13.3.59 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the Valley Road (north) approach from 95% in the future baseline to 98%, with a corresponding change in queue length from three PCU in the future baseline to five PCU."

Wistaston Green Road/Capesthorne Road junction

10.2.51 Table 13-19 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-19 of the main TA is replaced by Table 13-19 below.

Table 13-19: Wistaston Green Road/Capesthorne Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Capesthorne Road	281	44%	0	288	45%	0	286	46%	0
Wistaston Green Road (east)	305	26%	0	302	24%	0	319	27%	0
Wistaston Green Road (west)	976	61%	0	1,040	65%	0	1,022	64%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Capesthorne Road	444	94%	3	453	96%	4	459	96%	4
Wistaston Green Road (east)	567	37%	0	565	37%	0	555	37%	0
Wistaston Green Road (west)	930	57%	0	937	57%	0	926	57%	0

10.2.52 The conclusions drawn in paragraphs 123.3.61 to 13.3.63 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the Capesthorne Road approach from 94% in the future baseline to 96%, with a corresponding change in queue length from three PCU in the future baseline to four PCU."

A534 Crewe Road/A534 Nantwich Road/A532 Weston Road/A532 Macon Way/Tommy's Lane junction

10.2.53 Table 13-20 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-20 of the main TA is replaced by Table 13-20 below.

Table 13-20: A534 Crewe Road/A534 Nantwich Road/A532 Weston Road/A532 Macon Way/Tommy's Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A532 Macon Way	630	68%	5	673	73%	6	666	72%	6
A534 Crewe Road	630	56%	6	679	60%	6	692	61%	6
A532 Weston Road	637	44%	6	644	45%	6	644	45%	6
A534 Nantwich Road	935	58%	6	951	59%	6	953	59%	6
Tommy's Lane	68	5%	0	68	5%	0	68	5%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A532 Macon Way	710	76%	6	755	81%	6	771	82%	6
A534 Crewe Road	635	49%	6	629	49%	6	620	48%	6
A532 Weston Road	844	43%	8	903	46%	8	930	47%	8
A534 Nantwich Road	986	59%	6	970	58%	6	954	57%	6
Tommy's Lane	75	7%	0	75	7%	0	75	7%	0

10.2.54 The conclusions drawn in paragraphs 13.3.65 and 13.3.66 of the main TA remain unchanged.

A534/A534 Crewe Green Road/A5020 University Way (Crewe Green Roundabout) junction

10.2.55 Table 13-21 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-21 of the main TA is replaced by Table 13-21 below.

Table 13-21: A534/A534 Crewe Green Road/A5020 University Way (Crewe Green Roundabout) junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Sydney Road	806	37%	2	796	36%	3	880	40%	3	875	40%	3
A534	994	43%	0	1,050	50%	1	1,116	49%	0	1,115	49%	0
B5077 Crewe Road	867	87%	3	837	96%	7	832	94%	5	842	95%	6
A5020 University Way	726	56%	1	778	60%	1	779	64%	1	783	66%	1
A534 Crewe Green Road	634	28%	0	635	29%	0	638	30%	0	631	30%	0
17:00–18:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Sydney Road	405	18%	0	390	18%	0	363	16%	0	349	16%	0
A534	1,099	48%	0	1,098	48%	0	1,151	49%	0	1,141	49%	0
B5077 Crewe Road	452	39%	0	455	39%	0	460	40%	0	459	40%	0
A5020 University Way	981	34%	0	1,012	34%	0	991	34%	0	988	34%	0
A534 Crewe Green Road	1,167	57%	1	1,173	58%	1	1,269	63%	1	1,271	63%	1

10.2.56 The conclusions drawn in paragraphs 13.3.68 to 13.3.70 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

In the 2030 utilities scenario, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the B5077 Crewe Road approach from 87% in the future baseline to 96% in the AM peak hour, with a corresponding change in queue length from three PCU in the future baseline to seven PCU.

In the PM peak hour, the change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths."

A532 Earle Street/A532 Manchester Bridge/William Street/Grand Junction Way junction

10.2.57 Table 13-22 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-22 of the main TA is replaced by Table 13-22 below.

Table 13-22: A532 Earle Street/A532 Manchester Bridge/William Street/Grand Junction Way junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
William Street	530	76%	1	576	85%	2	569	83%	2
A532 Manchester Bridge	835	40%	0	865	42%	0	867	42%	0
Grand Junction Way	24	2%	0	24	2%	0	24	2%	0
A532 Earle Street	1,095	51%	0	1,158	53%	0	1,152	53%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
William Street	477	59%	0	582	69%	1	581	70%	1
A532 Manchester Bridge	1,201	56%	0	1,184	57%	0	1,194	57%	0
Grand Junction Way	16	2%	0	15	2%	0	16	2%	0
A532 Earle Street	812	40%	0	746	37%	0	772	38%	0

10.2.58 The conclusions drawn in paragraphs 13.3.72 to 13.3.74 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and close to capacity with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the William Street approach from 76% in the future baseline to 85% in the AM peak hour, with a corresponding change in queue length from one PCU in the future baseline to two PCU. In the PM peak hour, the change in traffic due to construction of the AP1 revised Scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths."

A532 Vernon Way/A532 Earle Street/A5019 Vernon Way/Earle Street junction

10.2.59 Table 13-23 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-23 of the main TA is replaced by Table 13-23 below.

Table 13-23: A532 Vernon Way/A532 Earle Street/A5019 Vernon Way/Earle Street junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A532 Vernon Way	721	51%	0	711	53%	0	700	52%	0
A532 Earle Street	902	75%	1	967	81%	1	965	80%	1
A5019 Vernon Way	625	35%	0	660	38%	0	660	37%	0
Earle Street	434	36%	0	471	39%	0	469	39%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A532 Vernon Way	588	35%	0	543	32%	0	547	33%	0
A532 Earle Street	1,134	95%	2	1,160	97%	3	1,156	96%	3
A5019 Vernon Way	731	48%	0	736	48%	0	759	50%	0
Earle Street	323	27%	0	322	27%	0	317	26%	0

10.2.60 The conclusions drawn in paragraphs 13.3.76 to 13.3.78 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A532 Earle Street approach from 95% in the future baseline to 97%, with a corresponding change in queue length from two PCU in the future baseline to three PCU."

A532 West Street/A5078 Dunwoody Way/Bessemer Way junction

10.2.61 Table 13-24 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-24 of the main TA is replaced by Table 13-24 below.

Table 13-24: A532 West Street/A5078 Dunwoody Way/Bessemer Way junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A532 West Street (east)	241	80%	8	244	82%	9	242	81%	9
A5078 Dunwoody Way	402	22%	7	444	25%	8	421	24%	7
Bessemer Way	51	44%	2	51	44%	2	51	44%	2
A532 West Street (west)	735	96%	17	730	95%	17	732	95%	17
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A532 West Street (east)	275	83%	9	264	80%	9	266	81%	9
A5078 Dunwoody Way	566	36%	10	562	36%	10	566	36%	10
Bessemer Way	31	27%	1	31	27%	1	31	27%	1
A532 West Street (west)	686	95%	17	691	97%	17	690	97%	17

10.2.62 The conclusions drawn in paragraph 13.3.80 to 13.3.82 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A532 West Street (west) approach from 95% in the future baseline to 97%, with no change in corresponding queue length."

Badger Avenue/Broad Street junction

10.2.63 Table 13-25 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-25 of the main TA is replaced by Table 13-25 below.

Table 13-25: Badger Avenue/Broad Street junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Broad Street (north)	621	95%	9	617	95%	9	617	95%	9
Badger Avenue (east)	286	38%	4	254	35%	3	267	36%	3
Broad Street (south)	421	59%	6	457	63%	7	451	63%	7
Badger Avenue (west)	392	92%	7	388	90%	7	390	91%	7
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Broad Street (north)	515	95%	8	581	98%	8	580	98%	8
Badger Avenue (east)	364	50%	5	307	45%	4	311	46%	4
Broad Street (south)	409	66%	6	440	69%	6	438	68%	6
Badger Avenue (west)	367	67%	6	376	70%	6	379	70%	7

10.2.64 The conclusions drawn in paragraphs 13.3.84 to 13.3.86 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1 and 2 the change in traffic due to construction of the route of the AP1 revised scheme will increase the VoC on the Broad Street (north) approach from 95% in the future baseline to 98% in the PM peak hour, with no change in corresponding queue length."

Badger Avenue/Underwood Lane junction

10.2.65 Table 13-26 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-26 of the main TA is replaced by Table 13-26 below.

Table 13-26: Badger Avenue/Underwood Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Underwood Lane (north)	249	44%	3	212	37%	3	224	40%	3
Badger Avenue (east)	605	94%	6	609	96%	6	605	95%	6
Underwood Lane (south)	472	95%	6	480	98%	7	478	97%	7
Badger Avenue (west)	330	37%	3	343	38%	4	343	38%	4
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Underwood Lane (north)	321	63%	4	302	59%	4	300	58%	4
Badger Avenue (east)	624	97%	7	631	98%	7	623	97%	7
Underwood Lane (south)	473	98%	7	475	99%	7	476	99%	7
Badger Avenue (west)	398	47%	4	393	46%	4	393	46%	4

10.2.66 The conclusions drawn in paragraphs 13.3.88 to 13.3.90 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the Underwood Lane (south) approach from 95% in the future baseline to 98% in the AM peak hour, with a corresponding change in queue length from six PCU in the future baseline to seven PCU.

In the PM peak hour, the change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths."

Broad Street/Davenport Street/McLaren Street junction

10.2.67 Table 13-27 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-27 of the main TA is replaced by Table 13-27 below.

Table 13-27: Broad Street/Davenport Street/McLaren Street junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Broad Street (north)	386	28%	0	368	27%	0	379	28%	0
Davenport Street*	-	-	-	-	-	-	-	-	-
Broad Street (south)	752	46%	0	802	49%	0	795	48%	0
McLaren Street	566	94%	3	541	94%	3	547	94%	3
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Broad Street (north)	451	33%	0	468	34%	0	482	35%	0
Davenport Street*	-	-	-	-	-	-	-	-	-
Broad Street (south)	538	34%	0	575	36%	0	573	35%	0
McLaren Street	436	61%	0	489	72%	1	476	71%	1

** Minor approach arm not represented within the strategic traffic model*

10.2.68 The conclusions drawn in paragraphs 13.3.92 to 13.3.94 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

Sydney Road/Maw Green Road/Remer Street/Elm Drive/Groby Road network

10.2.69 The Sydney Road/Maw Green Road/Remer Street/Elm Drive/Groby Road network incorporates three priority-controlled (give-way) T-junctions located in proximity. The network comprises:

- Sydney Road/Maw Green Road;
- Remer Street/Sydney Road/Elm Drive; and
- Remer Street/Groby Road.

10.2.70 During construction the three existing priority T-junctions will be temporarily reconfigured to accommodate abnormal loads for a period of seven years and three months. This is not expected to affect the layout of the junctions for other traffic. In the event that the committed improvement scheme associated with the nearby Coppenhall East development (committed development reference MA01/148 in Planning data, Volume 5: Appendix CT-004-00000 of the main TA) has been implemented, which replaces the three existing priority T-junctions with an elongated priority-controlled roundabout, the roundabout will be temporarily reconfigured to accommodate abnormal loads for a period of seven years and three months. The proposed elongated priority controlled roundabout junction layout is shown in the Statement to Discharge Highway Conditions[3] (Appendix A, drawing number CH_021 Issue 02) that was submitted as part of the reserved matters application for the Coppenhall East residential development (planning application reference 13/4725N). Table 13-28 to Table 13-31 summarise the results of the changes to these junctions as a result of the AP1 revised scheme with and without the improvement scheme in place.

10.2.71 The three junctions are reported separately below, but it should be noted that due to the proximity of these three junctions, if queues at one of the junctions extend beyond the available storage capacity of the right turn lane, they could impact on the operation of the upstream junction(s).

[3] Croft Transport Solutions (2013), *Residential Development Coppenhall East Crewe Statement to Discharge Highway Conditions*. Available online at: https://moderngov.cheshireeast.gov.uk/documents/s33873/13%204725N.pdf.

Sydney Road/Maw Green Road junction

10.2.72 Table 13-28 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-28 of the main TA is replaced by Table 13-28 below.

Table 13-28: Sydney Road/Maw Green Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Sydney Road (north) (ahead)	1,143	-	-	1,209	-	-	1,168	-	-
Sydney Road (north) (left)	50	-	-	61	-	-	62	-	-
Maw Green Road (left)	34	1.72	9	37	2.09	14	32	2.01	12
Maw Green Road (right)	277	1.71	70	305	2.22	112	314	2.15	113
Sydney Road (south) (ahead and right)	828	0.02	0	861	0.02	0	876	0.02	0
17:00–18:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Sydney Road (north) (ahead)	780	-	-	749	-	-	733	-	-
Sydney Road (north) (left)	474	-	-	614	-	-	618	-	-
Maw Green Road (left)	9	0.02	0	9	0.02	0	9	0.02	0
Maw Green Road (right)	47	0.26	0	50	0.29	0	51	0.29	0
Sydney Road (south) (ahead and right)	1,004	0.05	0	1,026	0.08	0	1,028	0.08	0

10.2.73 The conclusions drawn in paragraphs 13.3.99 to 13.3.101 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme will increase the RFC on the Maw Green Road (right) approach from 1.71 in the future baseline to 2.22 in the AM peak hour, with a corresponding change in queue length from 70 PCU in the future baseline to 112 PCU.

In the PM peak hour, the change in traffic due to construction of the original scheme will not result in substantial changes in capacity indicators such as RFC and queue lengths."

Remer Street/Sydney Road/Elm Drive junction

10.2.74 Table 13-29 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-29 of the main TA is replaced by Table 13-29 below.

Table 13-29: Remer Street/Sydney Road/Elm Drive junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Remer Street (ahead and right)	1,449	0.72	5	1,541	0.81	11	1,512	0.86	15
Sydney Road (ahead)	1,300	-	-	1,357	-	-	1,373	-	-
Sydney Road (left)	50	-	-	79	-	-	83	-	-
Elm Drive (left)	252	N/A*	140	276	N/A*	153	272	N/A*	151
Elm Drive (right)	4	N/A*	2	5	N/A*	3	5	N/A*	3
17:00–18:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Remer Street (ahead and right)	1,385	0.46	1	1,512	0.59	2	1,488	0.57	2
Sydney Road (ahead)	1,170	-	-	1,207	-	-	1,208	-	-
Sydney Road (left)	14	-	-	23	-	-	22	-	-
Elm Drive (left)	153	2.58	52	178	N/A*	103	176	N/A*	101
Elm Drive (right)	55	2.53	19	83	N/A*	49	87	N/A*	51

** This RFC is not reported due to the model reaching its upper limit. The reported queue length provides only an indication of the level of queuing likely to be experienced at this junction as in practice some drivers may choose to modify their route or the timing of their journey to avoid the congestion.*

10.2.75 The conclusions drawn in paragraphs 3.3.103 and 3.3.104 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP1 revised scheme.

In scenario 2 the change in traffic due to construction of the AP1 revised scheme will increase the RFC on the Remer Street (ahead and right) approach from 0.72 in the future baseline to 0.86 in the AM peak hour, with a corresponding change in queue length from five PCU in the future baseline to 15 PCU. In the PM peak hour, the junction will continue to operate in excess of its theoretical capacity in both the future baseline and with the AP1 revised scheme with a change in queue length in scenario 1 on Elm Drive (left) from 52 PCU in the future baseline to 103 PCU with the AP1 revised scheme."

Remer Street/Groby Road junction

10.2.76 Table 13-30 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-30 of the main TA is replaced by Table 13-30 below.

Table 13-30: Remer Street/Groby Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Remer Street (north) (ahead)	858	-	-	888	-	-	871	-	-
Remer Street (north) (left)	348	-	-	353	-	-	368	-	-
Groby Road (left and right)	674	N/A*	780	732	N/A*	913	737	N/A*	906
Remer Street (south) (ahead and right)	1,300	2.06	622	1,357	2.29	757	1,373	2.20	722
17:00–18:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Remer Street (north) (ahead)	695	-	-	728	-	-	709	-	-
Remer Street (north) (left)	42	-	-	41	-	-	40	-	-
Groby Road (left and right)	855	2.32	499	931	2.47	591	930	2.45	585
Remer Street (south) (ahead and right)	912	0.33	1	890	0.30	1	896	0.30	1

** This RFC is not reported due to the model reaching its upper limit. The reported queue length provides only an indication of the level of queuing likely to be experienced at this junction as in practice some drivers may choose to modify their route or the timing of their journey to avoid the congestion*

10.2.77 The conclusions drawn in paragraphs 13.3.106 and 13.3.107 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and the AP1 revised scheme.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme will increase the RFC on the Remer Street (south) (ahead and right) approach from 2.06 in the future baseline to 2.29 in the AM peak hour, with a corresponding change in queue length from 622 PCU in the future baseline to 757 PCU.

In the PM peak hour, the change in traffic due to construction of the AP1 revised scheme will increase the RFC on the Groby Road (left and right) approach from 2.32 in the future baseline to 2.47, with a corresponding change in queue length from 499 PCU in the future baseline to 591 PCU."

Remer Street/Groby Road/Sydney Road/Elm Drive/Maw Green Road junction

10.2.78 Table 13-31 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-31 of the main TA is replaced by Table 13-31 below.

Table 13-31: Remer Street/Groby Road/Sydney Road/Elm Drive/Maw Green Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario (existing layout)**			**AP1 revised scheme scenario 1 (proposed layout)**			**AP1 revised scheme scenario 2 (proposed layout)**		
Groby Road	674	0.83	4	611	0.74	3	732	0.89	7	737	0.90	7
Maw Green Road	310	0.86	5	370	0.90	7	342	0.99	12	346	1.04	16
Sydney Road	827	0.92	9	607	0.73	3	861	0.97	15	876	1.01	22
Elm Drive	256	0.40	1	297	0.39	1	281	0.44	1	276	0.44	1
Remer Street	1,205	1.54	307	896	1.14	68	1,241	1.66	384	1,238	1.60	361
17:00–18:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario (existing layout)**			**AP1 revised scheme scenario 1 (proposed layout)**			**AP1 revised scheme scenario 2 (proposed layout)**		
Groby Road	1,155	1.21	89	896	1.11	57	931	1.39	162	930	1.37	153
Maw Green Road	55	0.11	0	62	0.12	0	60	0.11	0	60	0.11	0
Sydney Road	1,004	0.95	13	703	0.72	3	1,026	0.97	16	1,028	0.97	16
Elm Drive	207	0.33	1	299	0.39	1	261	0.41	1	263	0.42	1
Remer Street	736	0.77	3	580	0.59	2	768	0.84	5	750	0.82	4

10.2.79 The conclusions drawn in paragraphs 13.3.109 to 13.3.112 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and the AP1 revised scheme.

In scenario 2 the change in traffic due to construction of the AP1 revised scheme will increase the RFC on the Maw Green Road approach from 0.86 in the future baseline to 1.04 in the AM peak hour, with a corresponding change in queue length from five PCU in the future baseline to 16 PCU.

In scenario 1 the change in traffic due to construction of the of the AP1 revised scheme in the PM peak hour will increase the RFC on the Groby Road approach from 1.21 in the future baseline to 1.39, with a corresponding change in queue length from 89 PCU in the future baseline to 162 PCU.

If the committed improvement scheme has not been delivered in advance of the construction of the AP1 revised scheme, the improvements will be delivered as part of the AP1 revised scheme. In this case the impacts of the AP1 revised scheme are determined by comparing the results of the assessments for the existing three priority junctions presented in Table 13-28, Table 13-29 and Table 13-30 with the results of the assessments for the proposed layout in Table 13-31. This shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the AP1 revised scheme. In scenario 1, the RFC on the Remer Street approach will increase from 1.54 RFC in the future baseline to 1.66 in the AM peak hour, with a corresponding change in queue length from 307 PCU to 384 PCU. This is because the Remer Street approach is an unopposed movement with the existing layout, while it becomes an opposed movement with the committed improvement scheme layout."

B5076 Middlewich Street/B5076 North Street/Broad Street/Stoneley Road junction

10.2.80 Table 13-32 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-32 of the main TA is replaced by Table 13-32 below.

Table 13-32: B5076 Middlewich Street/B5076 North Street/Broad Street/Stoneley Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Stoneley Road	149	33%	0	196	42%	0	190	41%	0
Broad Street (north)*	-	-	-	-	-	-	-	-	-
B5076 Middlewich Street	667	56%	0	629	53%	0	648	54%	0
Greenway	19	3%	0	17	3%	0	21	3%	0
Broad Street	697	44%	0	703	44%	0	708	44%	0
B5076 North Street	903	96%	4	900	96%	4	893	95%	4
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Stoneley Road	9	1%	0	9	1%	0	9	1%	0
Broad Street (north)*	-	-	-	-	-	-	-	-	-
B5076 Middlewich Street	1,089	84%	0	1,056	82%	0	1,071	84%	0
Greenway	131	26%	0	123	24%	0	133	26%	0
Broad Street	383	24%	0	458	29%	0	445	28%	0
B5076 North Street	701	60%	0	686	61%	0	698	61%	0

** Minor approach arm not represented within the strategic traffic model*

10.2.81 The conclusions drawn in paragraphs 13.3.115 to 13.3.117 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

B5076 Bradfield Road/B5076 North Street/Broughton Road junction

10.2.82 Table 13-33 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-33 of the main TA is replaced by Table 13-33 below.

Table 13-33: B5076 Bradfield Road/B5076 North Street/Broughton Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Broughton Road	173	15%	0	174	16%	0	175	16%	0
B5076 North Street	655	41%	0	626	40%	0	642	41%	0
B5076 Bradfield Road	608	36%	0	660	39%	0	647	38%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Broughton Road	89	8%	0	97	9%	0	98	9%	0
B5076 North Street	853	54%	0	825	52%	0	837	53%	0
B5076 Bradfield Road	659	39%	0	631	37%	0	643	38%	0

10.2.83 The conclusions drawn in paragraphs 13.3.119 to 13.3.121 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

B5076 Bradfield Road/Mablins Lane junction

10.2.84 Table 13-34 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-34 of the main TA is replaced by Table 13-34 below.

Table 13-34: B5076 Bradfield Road/Mablins Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Mablins Lane	338	42%	0	347	41%	0	354	43%	0
B5076 Bradfield Road (east)	538	35%	0	532	36%	0	544	36%	0
B5076 Bradfield Road (west)	319	19%	0	325	19%	0	318	19%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Mablins Lane	229	26%	0	252	29%	0	243	28%	0
B5076 Bradfield Road (east)	670	49%	0	633	47%	0	647	48%	0
B5076 Bradfield Road (west)	528	32%	0	533	32%	0	541	32%	0

10.2.85 The conclusions drawn in paragraphs 13.3.123 to 13.3.125 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

B5076 Bradfield Road/Parkers Road junction

10.2.86 Table 13-35 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-35 of the main TA is replaced by Table 13-35 below.

Table 13-35: B5076 Bradfield Road/Parkers Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Parkers Road	430	101%	5	432	102%	5	438	98%	5	431	101%	5
B5076 Bradfield Road (south)	503	49%	4	479	50%	4	448	44%	4	482	46%	4
B5076 Bradfield Road (north)	747	88%	10	801	93%	11	768	89%	10	780	90%	11
17:00–18:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Parkers Road	242	43%	4	242	43%	4	252	44%	5	271	47%	5
B5076 Bradfield Road (south)	450	37%	4	488	40%	4	394	33%	4	422	35%	4
B5076 Bradfield Road (north)	922	68%	13	1,033	76%	14	983	72%	13	981	72%	13

10.2.87 The conclusions drawn in paragraphs 13.3.127 to 13.3.129 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates within capacity in both the future baseline and with the AP1 revised scheme.

In 2030 Utilities scenario, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the B5076 Bradfield Road (north) approach from 88% in the future baseline to 93% in the AM peak hour, with a corresponding change in queue length from 10 PCU in the future baseline to 11 PCU.

In the PM peak hour, the change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths."

B5076 Flowers Lane/B5076 Bradfield Road/Minshull New Road/Smithy Lane junction

10.2.88 Table 13-36 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-36 of the main TA is replaced by Table 13-36 below.

Table 13-36: B5076 Flowers Lane/B5076 Bradfield Road/Minshull New Road/Smithy Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5076 Flowers Lane	442	50%	0	476	53%	0	480	54%	0
B5076 Bradfield Road	866	82%	0	804	76%	0	838	79%	0
Minshull New Road	35	6%	0	35	6%	0	35	6%	0
Smithy Lane	348	38%	0	334	36%	0	343	37%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
B5076 Flowers Lane	238	34%	0	256	37%	0	262	38%	0
B5076 Bradfield Road	571	52%	0	525	48%	0	572	52%	0
Minshull New Road	120	17%	0	120	16%	0	120	17%	0
Smithy Lane	645	70%	0	671	71%	0	663	71%	0

10.2.89 The conclusions drawn in paragraphs 13.3.131 to 13.3.133 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

A534/Crewe Road junction

10.2.90 Table 13-37 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-37 of the main TA is replaced by Table 13-37 below.

Table 13-37: A534/Crewe Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Crewe Road (north)	443	37%	0	479	40%	0	482	40%	0
A534 Wheelock Bypass	770	64%	0	887	74%	1	894	75%	1
Crewe Road (south)	538	45%	0	592	51%	1	593	51%	1
A534 Haslington Bypass	941	78%	1	962	80%	1	954	79%	1
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Crewe Road (north)	493	44%	0	516	49%	1	510	48%	1
A534 Wheelock Bypass	899	75%	1	923	77%	1	918	77%	1
Crewe Road (south)	578	48%	0	606	52%	1	606	52%	1
A534 Haslington Bypass	1,132	94%	3	1,176	98%	5	1,177	98%	5

10.2.91 The conclusions drawn in paragraphs 13.3.135 to 13.3.137 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A534 Haslington Bypass approach from 94% in the future baseline to 98%, with a corresponding change in queue length from three PCU in the future baseline to five PCU."

Warmingham Road/Waldrons Lane junction

10.2.92 Table 13-38 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-38 of the main TA is replaced by Table 13-38 below.

Table 13-38: Warmingham Road/Waldrons Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Warmingham Road (north)	453	28%	0	498	30%	0	525	32%	0
Waldrons Lane	74	15%	0	190	32%	0	192	32%	0
Warmingham Road (south)	475	29%	0	502	33%	0	499	33%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Warmingham Road (north)	263	16%	0	278	17%	0	280	17%	0
Waldrons Lane	111	16%	0	106	16%	0	105	16%	0
Warmingham Road (south)	445	26%	0	660	40%	0	683	41%	0

10.2.93 The conclusions drawn in paragraphs 13.3.139 to 13.3.141 of the main TA are replaced by:

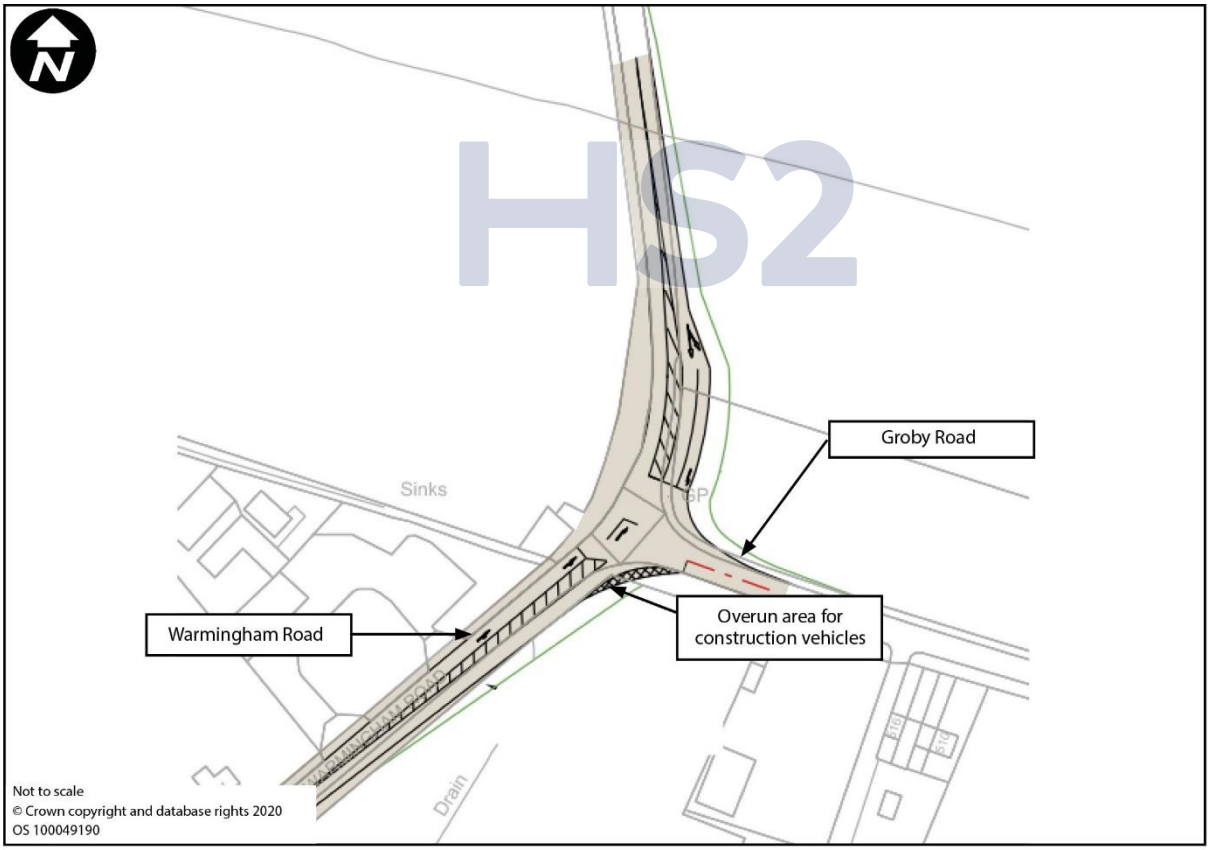
"The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

Warmingham Road/Groby Road junction

10.2.94 The Warmingham Road/Groby Road junction will be modified as a result of the AP1 revised scheme to mitigate construction impacts in this location as reported in the main TA. The temporary modifications comprise the introduction of traffic signal control and associated geometric changes at the junction. Figure 13-6.1 shows the junction layout introduced as part of the AP1 revised scheme.

Figure 13-6.1: Junction layout diagram (Warmingham Road/Groby Road)



10.2.95 Table 13-39 summarises the results of the changes in performance of the junction as a result of the AP1 revised scheme based on the existing junction layout. Table 13-39a summarises the performance of the junction as a result of the AP1 revised scheme with the proposed temporary junction layout introduced.

10.2.96 Table 13-39 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-39 of the main TA is replaced by Table 13-39 and Table 13-39.1 below.

Table 13-39: Warmingham Road/Groby Road junction 2030 future baseline and with the AP1 revised scheme (existing layout) junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Warmingham Road (north)	1,110	-	-	1,223	-	-	1,250	-	-
Groby Road	359	1.31	43	413	1.65	77	426	1.70	82
Warmingham Road (south) (ahead and right)	563	0.62	3	637	0.71	5	625	0.74	6
17:00–18:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (existing layout)**			**AP1 revised scheme scenario 2 (existing layout)**		
Warmingham Road (north)	377	-	-	405	-	-	399	-	-
Groby Road	682	1.51	155	534	1.46	102	525	1.45	99
Warmingham Road (south) (ahead and right)	471	0.10	0	823	0.28	1	837	0.27	1

Table 13-39.1: Warmingham Road/Groby Road junction 2030 future baseline and with the AP1 revised scheme (proposed layout) junction capacity assessment results

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (proposed layout)**			**AP1 revised scheme scenario 2 (proposed layout)**		
Warmingham Road (north)	1,110	-	-	1,214	83%	11	1,242	82%	7
Groby Road	359	1.31	43	297	81%	9	286	80%	6
Warmingham Road (south) (ahead and right)	563	0.62	3	567	46%	7	560	48%	5
17:00–18:00	**2030 future baseline (existing layout)**			**AP1 revised scheme scenario 1 (proposed layout)**			**AP1 revised scheme scenario 2 (proposed layout)**		
Warmingham Road (north)	377	-	-	395	47%	5	387	45%	5
Groby Road	682	1.51	155	719	83%	23	716	84%	23
Warmingham Road (south) (ahead and right)	471	0.10	0	617	83%	21	639	84%	22

10.2.97 The conclusions drawn in paragraphs 13.3.143 to 13.3.145 of the main TA are replaced by:

"The assessment shows that, based on the existing layout, in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the AP1 revised scheme.

With the proposed layout, the assessment shows that in the AM and PM peak hours the junction operates within capacity with the AP1 revised scheme.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme will decrease the RFC on the Groby Road approach from 1.31 in the future baseline to a DoS of 81% in the AM peak hour, with a corresponding change in queue length from 43 PCU in the future baseline to nine PCU.

In scenario 2 the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will decrease the RFC on the Groby Road approach from 1.51 in the future baseline to a DoS of 84%, with a corresponding change in queue length from 155 PCU in the future baseline to 23 PCU."

A530 Middlewich Road/B5076 Flowers Lane/Eardswick Lane junction

10.2.98 Table 13-40 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-40 of the main TA is replaced by Table 13-40 below.

Table 13-40: A530 Middlewich Road/B5076 Flowers Lane/Eardswick Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A530 Middlewich Road (north)	495	58%	8	542	64%	9	519	61%	9
B5076 Flowers Lane	289	39%	0	261	37%	0	286	39%	0
A530 Middlewich Road (south)	330	21%	0	424	27%	0	396	25%	0
Eardswick Lane	499	98%	13	516	101%	13	518	101%	13
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A530 Middlewich Road (north)	369	69%	9	458	96%	11	446	94%	11
B5076 Flowers Lane	284	33%	0	254	33%	0	284	36%	0
A530 Middlewich Road (south)	626	41%	0	696	45%	0	680	44%	0
Eardswick Lane	249	49%	4	279	55%	5	260	51%	5

10.2.99 The conclusions drawn in paragraphs 13.3.147 and 13.3.148 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and over capacity with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in the future baseline and close to capacity with the AP1 revised scheme.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the AM peak hour will increase the VoC on the Eardswick Lane approach from 98% in the future baseline to 101% in the AM peak hour, with no change in corresponding queue length.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A530 Middlewich Road (north) approach from 69% in the future baseline to 96%, with a corresponding change in queue length from nine PCU in the future baseline to 11 PCU."

Warmingham Road/Hall Lane junction

10.2.100 Table 13-41 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-41 of the main TA is replaced by Table 13-41 below.

Table 13-41: Warmingham Road/Hall Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Warmingham Road (north)	498	30%	0	536	33%	0	545	33%	0
Hall Lane	655	49%	1	785	62%	1	794	62%	1
Warmingham Road (south)	683	50%	0	717	53%	0	695	52%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Warmingham Road (north)	238	15%	0	267	17%	0	257	16%	0
Hall Lane	478	35%	0	485	40%	1	482	39%	1
Warmingham Road (south)	1,047	67%	0	1,223	79%	0	1,237	80%	0

10.2.101 The conclusions drawn in paragraphs 13.3.150 to 13.3.152 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in the future baseline and within capacity with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

A534 Wheelock Bypass/A533 Old Mill Road junction

10.2.102 Table 13-42 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-42 of the main TA is replaced by Table 13-42 below.

Table 13-42: A534 Wheelock Bypass/A533 Old Mill Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Brookhouse Road	70	8%	0	70	9%	0	70	9%	0
A533 Old Mill Road (east)	814	85%	1	901	94%	2	907	95%	2
A534 Wheelock Bypass	1,032	86%	1	1,062	89%	1	1,058	88%	1
A533 Old Mill Road (west)	684	57%	1	731	61%	1	729	61%	1
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Brookhouse Road	200	27%	0	200	28%	0	200	28%	0
A533 Old Mill Road (east)	799	97%	4	819	99%	5	805	97%	4
A534 Wheelock Bypass	1,021	85%	1	1,061	88%	1	1,066	89%	2
A533 Old Mill Road (west)	1,022	85%	2	1,014	84%	2	1,014	84%	2

10.2.103 The conclusions drawn in paragraphs 13.3.154 to 13.3.156 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates close to capacity in both the future baseline and with the AP1 revised scheme.

In scenario 2, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the A533 Old Mill Road (east) approach from 85% in the future baseline to 95% in the AM peak hour, with a corresponding change in queue length from one PCU in the future baseline to two PCU.

In the PM peak hour the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the A534 Wheelock Bypass approach from 85% in the future baseline to 89%, with a corresponding change in queue length from one PCU in the future baseline to two PCU."

Brookhouse Lane/Eardswick Lane/Cross Lane junction

10.2.104 Table 13-43 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-43 of the main TA is replaced by Table 13-43 below.

Table 13-43: Brookhouse Lane/Eardswick Lane/Cross Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Brookhouse Lane	451	83%	1	429	79%	1	470	83%	1	455	82%	1
Eardswick Lane	243	15%	0	237	14%	0	169	10%	0	186	11%	0
Cross Lane	1,123	70%	0	1,035	64%	0	1,231	77%	0	1,214	75%	0
17:00–18:00	**2030 future baseline (proposed layout)**			**2030 AP1 revised scheme Utilities scenario**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Brookhouse Lane	304	50%	0	293	50%	0	415	66%	1	388	64%	0
Eardswick Lane	354	22%	0	393	24%	0	307	19%	0	338	21%	0
Cross Lane	703	44%	0	528	33%	0	588	36%	0	626	39%	0

10.2.105 The conclusions drawn in paragraphs 13.3.158 to 13.3.160 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

A533 London Road/B5079 Station Road junction

10.2.106 Table 13-44 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-44 of the main TA is replaced by Table 13-44 below.

Table 13-44: A533 London Road/B5079 Station Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A533 London Road (north)	755	67%	9	788	72%	10	790	72%	10
A533 London Road (south)	485	76%	9	524	83%	10	517	81%	10
B5079 Station Road	349	80%	7	371	85%	8	366	84%	8
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A533 London Road (north)	866	81%	11	893	96%	11	895	96%	11
A533 London Road (south)	506	80%	9	528	83%	10	526	83%	10
B5079 Station Road	362	83%	8	371	85%	8	371	85%	8

10.2.107 The conclusions drawn in paragraphs 13.3.162 to 13.3.164 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and close to capacity with the AP1 revised scheme. In the PM peak hour, the junction operates within capacity in the future baseline and close to capacity with the AP1 revised scheme.

In scenario 1 the change in traffic due to construction of the AP1 revised scheme in the AM peak hour will increase the VoC on the B5079 Station Road approach from 80% in the future baseline to 85%, with a corresponding change in queue length from seven PCU in the future baseline to eight PCU.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the A533 London Road (north) approach from 81% in the future baseline to 96%, with no change in corresponding queue length."

A534 Congleton Road/A534 Old Mill Road/Congleton Road junction

10.2.108 Table 13-45 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-45 of the main TA is replaced by Table 13-45 below.

Table 13-45: A534 Congleton Road/A534 Old Mill Road/Congleton Road junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A534 Congleton Road	913	54%	0	1,055	62%	0	1,059	62%	0
A534 Old Mill Road	889	52%	0	935	55%	0	929	55%	0
A534 Old Mill Road (left turn slip)	42	4%	0	42	4%	0	42	4%	0
Congleton Road	712	95%	7	668	101%	9	670	100%	9
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A534 Congleton Road	1,081	64%	0	1,108	65%	0	1,105	65%	0
A534 Old Mill Road	758	45%	0	801	47%	0	798	47%	0
A534 Old Mill Road (left turn slip)	4	0%	0	4	0%	0	4	0%	0
Congleton Road	587	71%	2	651	88%	4	654	88%	4

10.2.109 The conclusions drawn in paragraphs 13.3.166 to 13.3.168 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and over capacity with the AP1 revised scheme. In the PM peak hour, the junction operates well within capacity in the future baseline and close to capacity with the AP1 revised scheme.

In scenario 1, the change in traffic due to construction of the AP1 revised scheme will increase the VoC on the Congleton Road approach from 95% in the future baseline to 101% in the AM peak hour, with a corresponding change in queue length from seven PCU in the future baseline to nine PCU.

In scenario 1 and 2, the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the Congleton Road approach from 71% in the future baseline to 88%, with a corresponding change in queue length from two PCU in the future baseline to four PCU."

A533 London Road/Moss Lane junction

10.2.110 Table 13-46 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-46 of the main TA is replaced by Table 13-46 below.

Table 13-46: A533 London Road/Moss Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A533 London Road (north)	702	43%	0	735	45%	0	738	45%	0
A533 London Road (south)	838	50%	0	899	53%	0	887	53%	0
Moss Lane	135	35%	0	137	39%	0	137	38%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
A533 London Road (north)	824	51%	0	869	55%	0	864	54%	0
A533 London Road (south)	873	52%	0	904	54%	0	902	54%	0
Moss Lane	199	53%	1	199	57%	1	199	56%	1

10.2.111 The conclusions drawn in paragraphs 13.3.170 to 13.3.172 of the main TA are replaced by:

"The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths at this junction."

Forge Mill Lane/Dragons Lane/Tetton Lane/White Hall Lane junction

10.2.112 Table 13-47 of the main TA summarises the results of the changes in performance of the junction as a result of the original scheme. Table 13-47 of the main TA is replaced by Table 13-47 below.

Table 13-47: Forge Mill Lane/Dragons Lane/Tetton Lane/White Hall Lane junction 2030 future baseline and with the AP1 revised scheme junction capacity assessment results

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Tetton Lane*	-	-	-	-	-	-	-	-	-
Dragons Lane	156	10%	0	203	12%	0	196	12%	0
White Hall Lane	549	51%	0	658	62%	0	623	59%	0
Forge Mill Lane	622	43%	0	646	45%	0	664	46%	0
17:00–18:00	**2030 future baseline**			**AP1 revised scheme scenario 1**			**AP1 revised scheme scenario 2**		
Tetton Lane*	-	-	-	-	-	-	-	-	-
Dragons Lane	159	10%	0	91	6%	0	103	6%	0
White Hall Lane	858	80%	0	1,012	90%	0	1,014	91%	1
Forge Mill Lane	328	22%	0	407	26%	0	392	26%	0

** Minor approach arm not represented within the strategic traffic model*

10.2.113 The conclusions drawn in paragraphs 13.3.174 to 13.3.176 of the main TA are replaced by:

"The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the AP1 revised scheme. In the PM peak hour, the junction operates within capacity in the future baseline and close to capacity with the AP1 revised scheme.

The change in traffic due to construction of the AP1 revised scheme will not result in substantial changes in capacity indicators such as VoC and queue lengths in the AM peak hour.

In scenario 2 the change in traffic due to construction of the AP1 revised scheme in the PM peak hour will increase the VoC on the White Hall Lane approach from 80% in the future baseline to 91%, with a corresponding change in queue length from no queue in the future baseline to one PCU."

Accidents and safety

10.2.114 The impacts on accidents and safety during construction are reported in Section 13.3 of the main TA.

10.2.115 The baseline analysis of accidents and safety identified one location which had experienced an accident cluster over the three-year period from July 2016 to June 2019.

10.2.116 In the MA01 area, there are no locations with existing safety concerns that are likely to experience substantial increases in traffic during construction and, consequently, no unacceptable impacts on accident and safety risks are expected. This represents no change to the conclusions of the analysis of accidents of safety for the original scheme reported in Section 13.3 of the main TA.

Parking and loading

10.2.117 The impacts on parking and loading during construction are reported in Section 13.3 of the main TA.

10.2.118 The AP1 revised scheme includes changes to the Middlewich Street vent shaft. The construction of the Middlewich Street vent shaft will require the temporary loss of four out of eight spaces at McColl's convenience store off the B5076 Middlewich Street in Crewe. This temporary loss will be for a period of six years as a result of the AP1 revised scheme, compared to a period of five years and two months as reported in the main TA.

10.2.119 The AP1 revised scheme also includes changes to the construction of the Cowley Way vent shaft, including relocating the highway access for land used for HGV parking at Crewe Truck Stop and Café, located off the A532 Weston Road. The construction of Cowley Way vent shaft will result in the permanent loss of approximately 73% of the total land used for parking at Crewe Truck Stop and Café, equating to a permanent loss of 90 out of 120 existing HGV parking spaces as a result of the AP1 revised scheme. This represents no change to the temporary loss reported in the main TA, however under the AP1 revised scheme the impact

becomes permanent, occurring during construction and operation of the AP1 revised scheme.

10.2.120 The permanent loss of parking is reported under the operational assessment.

Public transport

Local bus services

10.2.121 The impacts on local bus services during construction are reported in Section 13.3 of the main TA.

10.2.122 The AP1 revised scheme includes changes to the Crewe tunnel, which will remove the temporary closure of Parkers Road. This will remove the impact on bus routes 12 and 317 on Parkers Road as reported in the main TA.

10.2.123 The AP1 revised scheme also includes changes to the route of the Crewe tunnel TBM power supply. This will remove the need for temporary traffic management and shuttle working on the A530 Middlewich Road and Underwood Lane, removing the impacts on bus route 85 on the A530 Middlewich Road and route 31 and route 31A on Underwood Lane as reported in the main TA.

10.2.124 The revised route of the TBM power supply scheme will require utility works and associated traffic management, including temporary shuttle working with traffic control, on the A532 West Street/Coppenhall Lane, which will affect six bus routes for a period of two months, and are in addition to those reported in the main TA: route 6 (Leighton Hospital – Crewe – Shavington); route 6E (Leighton Hospital – Crewe – Shavington); route 8 (Wistaston Green – Crewe – Sydney – Elm Drive); route 31 (Crewe – Leighton Hospital – Winsford/Northwich); route 31A (Crewe – Leighton Hospital – Winsford/Northwich); and route 85 (Nantwich – Crewe – Keele University – Newcastle – Hanley). This will not cause a change in the journey length.

Rail network

10.2.125 The impacts on the rail network during construction are reported in Section 13.3 of the main TA.

10.2.126 The AP1 revised scheme includes changes to the Crewe tunnel, which will remove the possessions and blockades of the WCML associated with the construction of the Parkers Road Overbridge and Parkers Road temporary footbridge.

Public transport interchanges

10.2.127 The impacts on public transport interchanges during construction are reported in Section 13.3 of the main TA. This section of the main TA is unchanged.

Pedestrians, cyclists and equestrians

10.2.128 Table 13-49 in the main TA summarises the locations where PRoW and roads used by pedestrians, cyclists and equestrians will be temporarily diverted, realigned or reinstated to accommodate construction of the original scheme. Table 13-49a summarises the amendments associated with the AP1 revised scheme and are in addition to or replace the associated changes noted in Table 13-49 in the main TA. Those not listed in Table 13-49a remain unchanged from those identified in Table 13-49 of the main TA.

Table 13-49a: MA01 AP1 revised scheme construction changes to PRoW and roadside footways for non-motorised users

PRoW name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
Footpath Crewe 13/1	0 users	Remains on existing alignment, resulting in no change in journey length	None	N/A
Parkers Road	N/A	Remains on existing alignment, resulting in no change in journey length	None	N/A
Footpath Crewe 12/1	0 users	Temporary diversion west at the intersection with Footpath Crewe 29/1, around the northern perimeter of the housing estate, along Moss Fields and Moss Lane	Increase of 273m	Four years and 10 months
Footpath Crewe 29/1	Three users	Temporary diversion during construction. Users will be diverted via Footpath Crewe 30/1 to Parkers Road and Crewe Footpath 12/1	Increase of 720m	One year and 11 months
Bowen Cooke Avenue Footway	N/A	Temporary closure and diversion during construction. Users will be diverted west along McNeill Avenue and south along Darlington Avenue, or east along McNeill Avenue and south along Frank Webb Avenue	Increase of up to 125m	One month
Public footway between Audley Street West and Sherborne Road	N/A	Temporary closure during construction. Temporary diversion east along Audley Street West and north along Middlewich Street	Increase of up to 5m	Two months

10.3 AP1 revised scheme operation description

10.3.1 The MA01 operation description for the original scheme is reported in Section 13.4 of the main TA. This section of the main TA is unchanged.

10.4 AP1 revised scheme assessment of operation impacts

10.4.1 The changes to the original scheme reported in Section 5.2 of this report mean that Section 13.5 of the main TA is replaced by Section 10.4 in this document. Where there is no replacement the text in the main TA remains valid.

10.4.2 This section provides an overview of the impacts resulting from the operation of the AP1 revised scheme. HS2 Phase Two services are expected to commence in 2038.

10.4.3 In the main TA, future baseline traffic volumes were calculated for 2030, 2038 and 2046. However, the 2046 future baseline in the main TA has been updated to 2051 in order to give the assessment greater resilience to long term growth in travel demand. Consequently, the operational assessment of the AP1 revised scheme has been undertaken for 2038 and 2051.

10.4.4 Operation of the AP1 revised scheme will not have any cumulative impacts resulting from the operation of the AP1 revised scheme with HS2 Phase 2a.

Key operation transport issues

10.4.5 The key operation transport issues are reported in Section 13.5 of the main TA. This section of the main TA is unchanged.

Highway network

Highway diversions, realignments and closures

10.4.6 Table 13-50 in the main TA summarises the permanent road diversions, realignments and extensions and any new or altered junctions required to accommodate the original scheme. Table 13-50a summarises the changes in the highway diversions to those in Table 13-50 in the main TA, identifying new or different permanent changes required to support the AP1 revised scheme. Those not listed in Table 13-50a remain unchanged to those identified in Table 13-50 of the main TA.

Table 13-50a: MA01 AP1 revised scheme permanent highway diversion/closure/amendment

Highway name/junction	Description	Change/alteration
Parkers Road	Remains on existing alignment, resulting in no change in journey length.	None

Network traffic flows

10.4.7 Traffic flows on roads in the MA01 area are either unchanged from the future baseline or the AP1 revised scheme results in only small changes due to maintenance traffic or reassignment as a result of the realignments and closures in 2038 and 2051.

Junction performance

10.4.8 Junction performance is reported in Section 13.5 of the main TA.

10.4.9 There are no junctions which are affected by the operation of the AP1 revised scheme within the MA01 area.

Accidents and safety

10.4.10 The impacts on accidents and safety during operation are reported in Section 13.5 of the main TA.

10.4.11 The baseline analysis of accidents and safety identified one location which had experienced an accident cluster over the three-year period from July 2016 to June 2019.

10.4.12 In the MA01 area, there are no locations with substantial forecast changes in traffic flows due to the operation of the AP1 revised scheme and, consequently, no unacceptable impacts on accident and safety risks are expected. This represents no change to the conclusions of the analysis of accidents of safety for the original scheme reported in Section 13.5 of the main TA.

10.4.13 New highway links and junctions will be constructed to current standards and/or in keeping with the existing infrastructure. The AP1 revised scheme is unlikely to create any new safety concerns.

Parking and loading

10.4.14 The impacts on parking and loading during operation are reported in Section 13.5 of the main TA.

10.4.15 The AP1 revised scheme includes changes to the construction of the Cowley Way vent shaft, including relocating the highway access for land used for HGV parking at Crewe Truck Stop and Café, located off the A532 Weston Road. The construction of Cowley Way vent shaft will result in the permanent loss of approximately 73% of the total land used for parking at Crewe Truck Stop and Café, equating to a permanent loss of 90 out of 120 existing HGV

parking spaces as a result of the AP1 revised scheme, compared with the permanent loss of 59 out of 120 existing HGV parking spaces as reported in the main TA.

Public transport

Local bus services

10.4.16 The impacts on local bus services during operation are reported in Section 13.5 of the main TA. This section of the main TA is unchanged.

Rail network

10.4.17 The impacts on the rail network during operation are reported in Section 13.5 of the main TA. This section of the main TA is unchanged.

Public transport interchanges

10.4.18 The impacts on public transport interchanges during operation are reported in Section 13.5 of the main TA. This section of the main TA is unchanged.

Pedestrians, cyclists and equestrians

10.4.19 Table 13-51 and Table 13-52 in the main TA summarise the locations where PRoW and roads used by pedestrians, cyclists and equestrians are permanently diverted, realigned or reinstated. Table 13-51a summarise the amendments associated with the AP1 revised scheme and are in addition to or replace the associated changes noted in Table 13-51 and Table 13-52 in the main TA. Those not listed in Table 13-51a and Table 13-52a remain unchanged to those identified in Table 13-51 and Table 13-52 of the main TA.

Table 13-51a: MA01 AP1 revised scheme permanent changes to PRoW for non-motorised users

PRoW name	Change in length	Comments
Footpath Crewe 12/1	Diversion of a section of Footpath Crewe 12/1, to provide a connection between Footpath Crewe 12/2, the Footpath Crewe 29/1 overbridge and Footpath Leighton 7/1. Access to the existing path along the northern edge of the houses on Perry Fields, Magecroft and Thornfields to Moss Fields will be retained. For users travelling between Coppenhall Moss and Moss Lane, this will increase the journey length by up to 235m.For users travelling from Parkers Road to Moss Lane via Footpath Crewe 12/1, users will be diverted via the Footpath Crewe 12/1 diversion, increasing journey length by up to 23m.	New overbridge

Table 13-52a: MA01 AP1 revised scheme permanent changes to roads for non-motorised users

PRoW name	Change in length	Comments
Parkers Road	Remains on existing alignment, resulting in no change in journey length.	None

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