



Balsall Common Transport Study

Baseline and Constraints Report

October 2020

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Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	May 2017	Will Hodgson Alex Clewett	Oliver Hague Paul Ellingham	Paresh Shingadia	Draft to Client Rev A
B	July 2018	Will Hodgson Alex Clewett	Oliver Hague Paul Ellingham	Paresh Shingadia	Draft to Client Rev B
C	September 2020	Emily Callard Weller Fred Jones	Oliver Hague	Tony Sheach	Draft to Client Rev C. Updated with local plan allocations
D	October 2020	Emily Callard – Weller	Oliver Hague	Tony Sheach	Final to Client following client comments

Document reference: 415790 | 001 | D 415790-MMD-BCTS-CC-TN-TP-001

Information class: Standard

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1 Introduction

1.1 Study Background

Mott MacDonald were commissioned by Solihull Metropolitan Borough Council (SMBC) between 2017 and 2018 to provide advice in relation to part of the transport evidence base needed to support the ongoing review of the Solihull Local Plan (SLP). Mott MacDonald has since been commissioned by SMBC to update this report in line with the updated Draft Local Plan (DLP).

This report has been updated within the COVID-19 pandemic. Due to the ongoing differences in traffic conditions, with levels yet to return to 'normal', additional traffic counts to provide a 2020 baseline were not coordinated. The traffic data (volume and profiles) within this report are as reported in 2017.

The SLP was adopted in December 2013 and covers the period 2011 to 2028. Since the Local Plan was adopted, a legal challenge has resulted in the overall housing requirement being annulled and remitted back to the Council for reconsideration.

The Government's plans for high speed rail were also given Royal Assent in February 2017, giving HS2 Limited the full legal, financial and planning powers to build Phase One of the scheme. The first HS2 station outside of London is to be built in Solihull on land next to the M42 and opposite the National Exhibition Centre (NEC), with works scheduled to start in 2017 and construction complete by 2026. The Interchange station will be constructed on land that is currently within the Green Belt, as part of the new Birmingham International Hub connecting it with the NEC, Birmingham International Station and Birmingham International Airport.

To ensure that a robust planning framework is in place that addresses these issues, the Council is undertaking a Local Plan Review (LPR).

To support the LPR, SMBC require a comprehensive transport evidence base, detailing the impacts of the revised plan on the transport network and any potential supporting mitigation measures.

The Balsall Common Transport Feasibility Study will be divided into different stages, summarised as follows:

- Stage 1 – Inception (Scoping Report submitted to SMBC, 6 April 2017)
- Stage 2 – Baselineing / Evidence Base
- Stage 3 – Constraints Mapping
- Stage 4 – Optioneering and Costings
- Stage 5 – Appraisal
- Stage 6 – Recommendations

This report provides an updated baseline to the Draft Report issued in 2018.

1.2 Report Purpose and Approach

In order to develop and propose solutions to meet the objectives of this study, it is necessary to understand the transportation, environmental and land use characteristics of the 'Study Area'.

The purpose of this report is therefore to identify the baseline characteristics of the Study Area and its scope and covers the following topic areas:

- Key population statistics and the main trip generating and attracting land uses within Balsall Common (Chapter 3)
- The function, use and performance of the highway network (Chapter 4)
- The connectivity and performance of the public transport network (Chapter 5)
- The connectivity and performance of the active mode network (Chapter 6)

The Report concludes with a summary section which identifies the main themes and recommendations emerging from the baseline assessment, including identifying the need for transport interventions at Balsall Common.

A further Report will then follow, involving an option appraisal of possible transport interventions and recommendations for any further work to inform this aspect of the Local Plan evidence base.

1.3 Geographic Extent

Balsall Common is a large rural settlement that lies within the Metropolitan Borough of Solihull, 7 miles west of Coventry, 8.5 miles east of Solihull and 14 miles south east of Birmingham.

The location of Balsall Common in its regional context and the Study Area of which is used throughout the report, other than the Constraints Analysis, is shown in Figure 1.1.

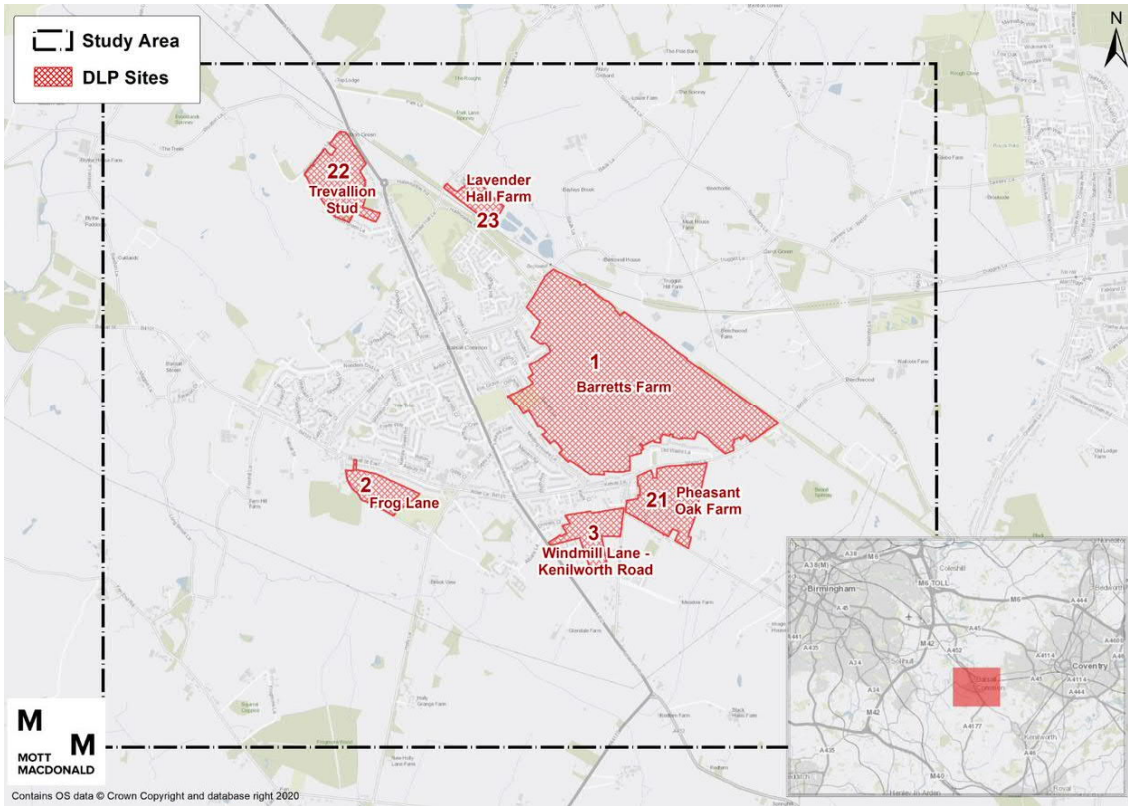
The proposed developments included within the Balsall Common Transport Study are:

- Site 1: Barretts Farm
- Site 2: Frog Lane
- Site 3: Windmill Lane – Kenilworth Road
- Site 21: Pheasant Oak Farm
- Site 22: Trevallion Stud
- Site 23: Lavender Hall Farm

The Balsall Common Transport Study seeks to understand both the existing transport characteristics within the Study Area, as well as the existing environmental, physical and planning constraints that could impact on the delivery of any necessary transport intervention.

This has informed the rationale for identifying the extent of the Baseline Study Area as shown in Figure 1.1. The Study Area agreed with SMBC is quite small and focused on Balsall Common itself, in order to give a detailed assessment of the transport characteristics that affect the settlement. The Study Area used for the Constraints Analysis is larger in order to cover all the potential constraints on the area that could affect any potential transport intervention.

Figure 1.1: Baseline Study Area



Source: SMBC and Ordnance Survey Mapping ©.

2 Planning Policy Context

2.1 Introduction

This Chapter provides a summary of the planning policy context associated with the Balsall Common Constraints Study, covering matters relating to the Statutory Development Plan, Emerging Planning Policy, and National Planning Policy.

2.2 Statutory Development Plan: Solihull Local Plan (2013)

The current Statutory Development Plan for the administrative area of SMBC comprises the Solihull Local Plan (SLP) (2013) which was adopted on 3rd December 2013 and covers the period 2011 to 2028. The document replaced the saved policies of the Solihull Unitary Development Plan (SUDP) (2006) and is the starting point for producing planning documents in Solihull and forecasting how the area will develop in the future. Fundamentally, it provides the backbone for housing and commercial growth proposals in the borough.

The SLP does not include an overall housing requirement due to this being deleted and remitted back to the Council for reconsideration following a successful legal challenge following adoption of the Plan.

In Paragraph 5.4.8 of the Local Plan itself, it is stated that there is a distinct need to:

“Exploit the role of transport in promoting and managing growth, whilst ensuring opportunities to access key destinations by a choice of transport modes, and that new development does not exacerbate congestion”.

The most recent strategy guiding transport interventions for the Borough is set out in the existing SLP; Chapter 9 ‘Improving Accessibility and Encouraging Sustainable Travel’.

Paragraph 9.3.15 of the existing SLP refers to a longstanding bypass scheme for Balsall Common, retained from the now-superseded SUDP (2006). The Local Plan states that the principal purpose of the scheme would be to remove traffic from the centre of Balsall Common, nevertheless noting that:

“It is...conceivable that the implementation of such [a] bypass line could be detrimental to the vitality and viability of the centre”.

As such, the Council considered that priorities for transport investment had altered significantly since the initial safeguarding of bypass schemes, particularly in relation to local centres. Hence, the need for the scheme to be retained in the Local Plan no longer existed and was omitted.

As the Solihull Local Plan faces a legal challenge, a draft local plan has been developed, which is primarily a review of the SLP. The transport policies and strategies haven't been changed throughout the local plan review and can be summarised as:

- Ensure that the transport network does not constrain economic growth; allowing growth and the consequential increase in travel demand to be accommodated without significant increases in congestion
- Reduce the need to travel by guiding development to the most accessible locations, and manage travel demand by encouraging a shift to public transport and active travel modes and supporting sustainable transport initiatives in the Local Transport Plan
- Ensure that people can access local services, key employment and retail centres and education locations on foot, by bicycle and public transport.
- Consider the whole journey when planning travel and to ensure that all travel modes are accessible and attractive to all users.

2.3 National Planning Policy

It is important to provide some national planning policy context for the Balsall Common Constraints Study, in order to understand how this work fits with guidelines on Local Plan making.

2.3.1 National Planning Policy Framework (2019)

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. It formulates the Government's requirements for the planning system and provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

Paragraph 16 of the NPPF states that:

“Plans should:

- a. Be prepared with the objective of contributing to the achievement of sustainable development;*
- b. Be prepared positively, in a way which is aspirational but deliverable;*

Be shaped early, proportionate and effective engagement between plan makers and communities, local organisations, businesses, infrastructure providers and operators and statutory consultees”

Sustainable Transport is further developed in paragraph 109 in the NPPF:

“Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- a) the potential impacts of development on transport networks can be addressed;*
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.”*

To this end, the Balsall Common Constraints Study looks to aid SMBC in fulfilling these criteria. This is necessary in the context of the ongoing review of the SLP, which has so far culminated in a Draft Review published in 2016.

2.3.2 Planning Practice Guidance: Transport evidence bases in plan-making and decision-taking (2015)

Planning Practice Guidance (PPG) provides guidance to help local planning authorities assess and reflect strategic transport needs in Local Plan making.

It is stated in the PPG that a robust transport evidence base for Local Plans must be established in order to:

“facilitate approval of the Local Plan and reduce costs and delays to the delivery of new development, thus reducing the burden on the public purse and private sector...a robust evidence base will enable an assessment of the transport impacts of both existing development as well as that proposed, and can inform sustainable approaches to transport at a plan-making level. This will include consideration of viability and deliverability”.

The key issues to be considered in developing a transport evidence base are also indicated as such:

- *“The existing situation and likely generation of trips over time by all modes*
- *The opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport*
- *Opportunities to reduce the need for travel where appropriate*
- *Opportunities to prioritise the use of alternative modes*
- *The cumulative impacts of existing and proposed development on transport networks*
- *The quality and capacity of transport infrastructure and its ability to meet forecast demands*
- *The short, medium and long-term transport proposals across all modes”*

The outcome should successfully assess the sustainability, viability and deliverability of proposed land allocations, and may, potentially, suggest alternative allocations or mitigation measures.

2.4 Emerging Planning Policy: Solihull Local Plan Review

Solihull MBC are undertaking a review of the Solihull Local Plan (SLP), following the legal challenge resulting in the overall housing requirement being deleted and remitted back to the Council for reconsideration. In addition, since adoption of the SLP, the hybrid bill associated with HS2 has received Royal Assent, which will result in the first station outside of London being built in Solihull on land next to the M42 and opposite the NEC. Construction of the station is scheduled for completion by 2027 and will be built on land currently within the Green Belt.

The Local Plan Review (LPR) is being undertaken to ensure that an up-to-date planning framework is adopted to address the issues facing the area.

2.4.1 Solihull Local Plan Review – Draft Local Plan (November 2016)

Consultation on the Draft Local Plan (November 2016) was undertaken between December 2016 and January 2017. The results of the consultation are currently being considered by the Council and will be used, along with other evidence being prepared (including this study), to assist the Council in preparing the next stage of the Plan Making process. This will result in

publication of the submission version of the plan which will be submitted to the Secretary of State for examination at some stage this year.

This section firstly considers the overall growth contained within the Draft Local Plan particularly in respect of growth in the vicinity of Balsall Common, and matters relating to the overall transport strategy for the area.

2.4.1.1 Housing Strategy

The housing plan within Balsall Common is displayed in Table 2.1, which displays the number of proposed dwelling to 2036.

Table 2.1: LPR Schedule of Allocated Housing Sites in Balsall Common

Site Name	Green Belt?	Site Capacity (dwellings)
Barratt's Farm	Yes	875
Frog Lane	Yes	110
Windmill Lane/ Kenilworth Road	Yes	120
Pheasant Oak Farm	Yes	200
Trevallion Stud	Yes	230
Lavender Hall Farm	Yes	80

Source: SMBC, 2020

These allocations are not listed as being dependent on new infrastructure requirements, but several potential improvements are referred to as 'likely'. These are multi-modal and broad in scope and include, but are not limited to:

- Highway capacity improvements
- Multiple vehicular access points
- Potential bypass line
- Pedestrian and cycling connectivity enhancements
- Bus service improvements
- Integration of green infrastructure connectivity

The Borough Vision for housing in Balsall Common within the LPR is explained at Paragraph 84 and states:

"A mix of market and affordable housing will have been provided through significant new development on the edge of Balsall Common to contribute towards meeting the Borough's housing need, and the centre of the village will have continued to thrive and cater for the needs of the local community. An alternative route will have been provided to relieve through traffic using the Kenilworth Road in the settlement..."

2.4.1.2 Employment Strategy

The Borough Vision for employment and the economy in Solihull within the LPR is explained at Paragraph 72 and states:

"It will be a Borough that continues to be economically successful and a driver for sustainable growth within the West Midlands; where the potential for managed growth within the UK Central area is unlocked and the ambitions for the economic assets contained within it are fully realised, without undermining the qualities that make the Borough attractive to people and investment. Essential infrastructure will be delivered to

facilitate and underpin sustainable economic growth and the Borough will be a more accessible and integrated place where walking, cycling and public transport are more attractive and convenient alternatives to travel than by car”

Employment opportunities will be focused in the following areas of the Borough:

- North Solihull Regeneration Area
- Solihull Town Centre
- Shirley Town Centre
- Chelmsley Wood Town Centre
- UK Central Hub Area

There are currently no land allocations in the Balsall Common area for employment sites, but it is important to acknowledge the wider employment growth aspirations within the Borough and potential impacts on infrastructure around the area.

2.4.1.3 Transport Strategy

The 2006 Unitary Development Plan sought to safeguard the lines of three longstanding potential by-passes to Balsall Common, Hockley Heath and Knowle. The Solihull Local Plan concluded that there was no justification to retain the safeguarding of the lines previously identified in the Unitary Development Plan. The Local Plan Review reiterates that there is nothing to suggest that this conclusion needs to be revisited, however; this is may not be the case in relation to Balsall Common as stated at Paragraph 267:

“The traffic associated with the HS2 Interchange site (and wider Hub area), and growth potential south of Coventry, especially when combined with traffic generated from new housing in the area, is likely to have an effect on the A452 as it passes through Balsall Common. This is expected to justify the provision of an alternative route that could accommodate through traffic and provide a basis for new residential developments to access the network in an appropriate manner. This alternative route will be pursued through the local plan review, although at this stage a specific line is not being proposed. Further scoping/ feasibility work will be undertaken to assess costs, benefits and potential funding/delivery options and timescales for its provision. This work will be taken forward through the later stages of the local plan review”.

It is within these terms that this Report has been commissioned.

2.5 Other Reports / Guidance Documents

2.5.1 Solihull Connected Delivery Plan (2016 – 2036)

This document is part of the Local Plan Review evidence base and cites the Balsall Common bypass scheme. The scheme is within ‘Priority Area 4’, which looks at enabling the HS2 Growth Strategy and Local Plan Review. Rationale for a potential bypass scheme is given as such:

“The scale of growth in the UK Central Hub area is likely to generate additional traffic movements in the surrounding area and, when combined with additional housing growth within the Borough, there may be a case to reinstate the Balsall Common Bypass Improvement Line. Through the Local Plan process the need for a Bypass will be reviewed, along with the opportunities it may generate to enhance public realm and the place function of the village centre”.

The Solihull Connected Delivery Plan goes on to state that further scoping/ feasibility work will be required subsequently to consider the costs, benefits and potential funding/ delivery options and timescales, should the implementation of a bypass be considered necessary. This will be provided as a result of this Study.

2.5.2 Solihull MBC Infrastructure Delivery Plan (IDP) (2012)

This document is a key component of the evidence base to support the 2013 SLP, providing a baseline of the existing infrastructure capacity and needs in the Borough, highlighting the infrastructure requirements to support the predicted growth set out in the Local Plan.

No specific reference is made to Balsall Common in a transport context, with the focus of the IDP instead largely drawn to the impact of HS2 and other proposed schemes.

2.5.3 West Midlands Local Transport Plan 3 (2011 – 2026)

This document set out a vision for the West Midlands, analysing travel problems and opportunities and then set out clear objectives and policies to tackle these issues. It also included a programme of transport interventions that would help to achieve these including a bypass route for the A452 in Balsall Common, running to the east of the village centre (highlighted within the document as part of the vision for transport in Solihull from 2011 to 2026).

This document was subsequently replaced by the Movement for Growth (2016), which became the current Local Transport Plan for the West Midlands.

2.5.4 Movement for Growth: The West Midlands Strategic Transport Plan (2016)

The Movement for Growth document superseded the prior West Midlands Local Transport Plan, to provide a transport plan for the West Midlands.

This document identifies a very high-level strategic vision for transport across West Midlands into the future. No specific reference is made to Balsall Common, but the overall vision is described thus:

“We will make great progress for a Midlands economic ‘Engine for Growth’, clean air, improved health and quality of life for the people of the West Midlands. We will do this by creating a transport system befitting a sustainable, attractive and economically vibrant conurbation in the world’s sixth largest economy”.

2.6 Berkswell Neighbourhood Plan (September 2019)

The Balsall Common Neighbourhood plan is currently being developed and has been submitted. The recommendation is such that the plan should proceed to referendum, but as this has not yet occurred, the Berkswell plan has been reviewed due to be a neighbouring parish. The parish incorporates the eastern third of Balsall Common, and the countryside between there and Coventry. Many residents in the Berkswell parish, live in Balsall

The Berkswell Plan was formally adopted on 5th September 2020 and provides a vision for the borough between 2019 and 2033. The plan has the accessibility and infrastructure objective to promote improved and safe accessibility to public transport links which include walking and cycling. Improve accessibility for Berkswell village is an objective of the neighbourhood plan and is located within 2 miles of Balsall Common. It is highlighted that a lack of public transport connectivity and the absence of safe pavements and cycle routes, mean that many journeys are made by car.

The new bridge over the west coast mainline associated with HS2 will have a footpath and safer cycling options. This has the additional possibility of connecting Berkswell to Balsall Common through an extension of the new footpath and cycle way into Berkswell and using the existing cycle way on Hallmeadow Road.

Policy B9: Improving Accessibility for All, states that development proposals should include linkages to existing footpaths and cycle routes, in order to improve connectivity.

This policy implies that an additional focus is on active travel and improving connectivity in the area.

2.7 Submission draft of Balsall Parish Neighbourhood Development Plan

The official Balsall Common Neighbourhood Plan has been submitted as draft, but the draft plan has been made available. There are several policies within the document that support the movement towards more active and sustainable transport.

Policy Com 4: Encouraging Walking and Cycling. This policy indicates that developments should demonstrate the prioritisation of walking and cycling. Where proposals adversely affect the existing walking route or fail to encourage appropriate new walking and potential cycling opportunities will be resisted.

The community aspiration (CA3) is a village bypass road, to redirect the traffic around Balsall Common to reduce congestion along the Kenilworth Road. This new route would mean that the Kenilworth Road would become a road for local access and provide a more environmentally friendly core for the local communities and the potential for walking and cycling routes. During the construction of HS2, haul routes should be implemented to minimise the need for construction traffic to use the main trunk road.

3 Land Use and Travel Demand

3.1 Introduction

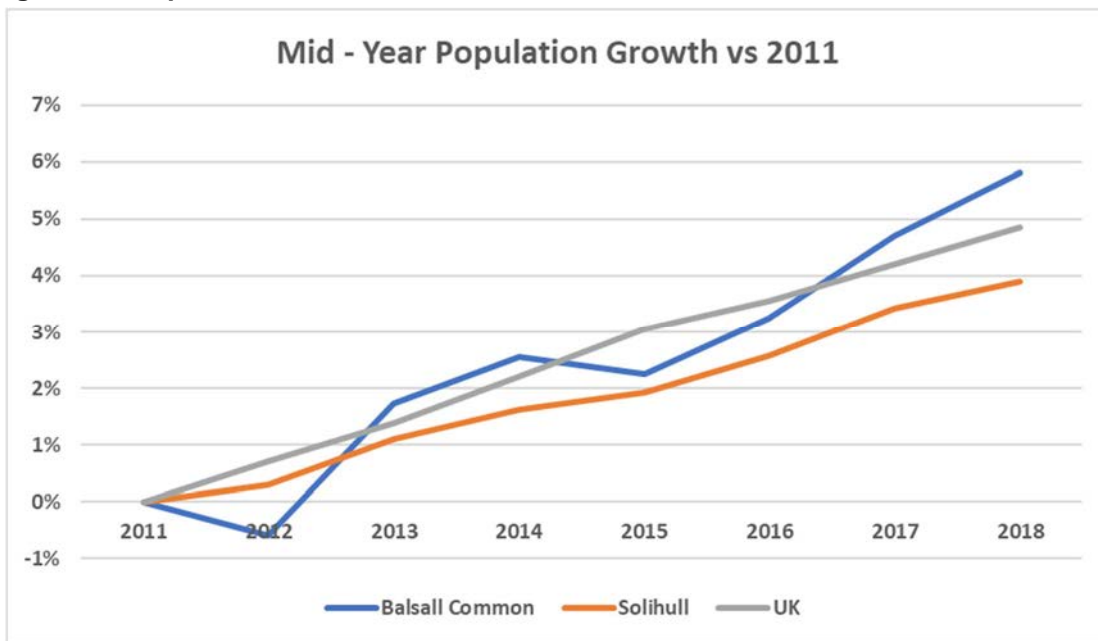
The purpose of this section is to provide a review of the main land uses within the study area which generate and attract trips, and the associated travel demand arising.

3.2 Population Levels

The majority of trips are generated from a place of residence. The 2011 Census identified 7,039 residents living in Balsall Common, of which 57.5% are of working age (18-64 years).

Using mid-year population estimates from 2011 to 2018¹, Figure 3.1 shows population growth over the eight-year period from which the 2011 Census was undertaken (2011 being the indexed year).

Figure 3.1: Population Growth, 2011 to 2018



Source: Mid-year population estimates, Office for National Statistics

This figure shows that:

- National and regional population growth has been steady.
- Solihull's population growth has also been reasonably steady, although below regional and national levels
- Population growth has fluctuated in Balsall Common, declining from 2011 to 2012, although it has experienced growth since 2013.

¹ Office for National Statistics

3.3 Car Ownership

The 2011 Census has been used to derive car ownership statistics for Balsall Common, Solihull, the West Midlands and nationally (as shown in Table 3.1).

Table 3.1: Average Number of Vehicles per Household

Area	Average number of vehicles per household
Balsall Common	1.8
Solihull	1.3
West Midlands	1.0
National	1.2

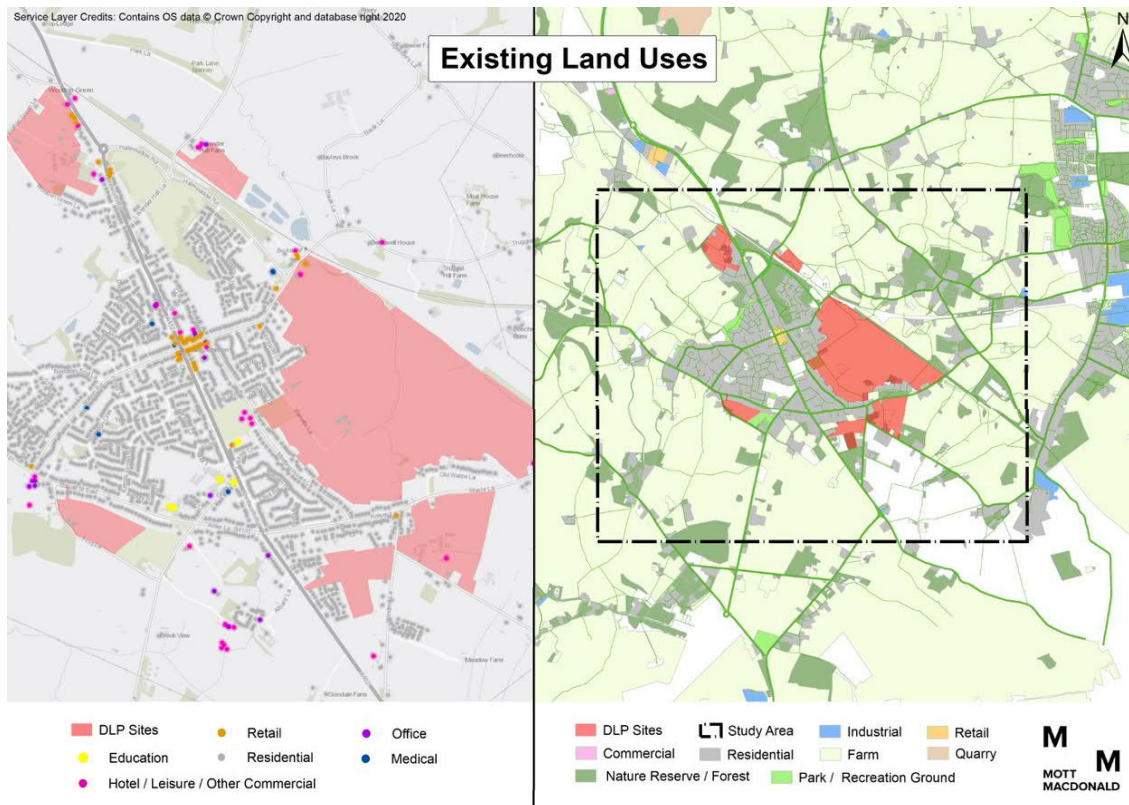
Source: Census 2011

Within Balsall Common² there is an average of 1.8 vehicles per household, which is significantly higher than the other areas. This reflects how non-car mode accessibility levels vary with settlement size and the rural/urban nature of settlements. This underlines the challenge in delivering sustainable travel behaviours in more rural communities.

3.4 Land Use

Figure 3.2 shows the different land uses in Balsall Common and the wider region.

Figure 3.2: Land Use Map



Source: OpenStreetMap contributors 2017 / SMBC / Ordnance Survey

² Location selection for Balsall Common: E02002105: Solihull 025

Regarding Balsall Common, this figure shows that:

- Balsall Common is characterised by a high proportion of residential uses (the majority of trips are generated from a place of residence)
- Balsall Common is surrounded by agricultural farmland, despite its location very close to the Coventry and Solihull urban boundaries
- There is a small retail hub in the centre of Balsall Common
- There are two schools in southern Balsall Common and one in Berkswell village

In a wider context, Birmingham Airport is situated to the north-east of Balsall Common, with a large commercial hub directly east of the airport.

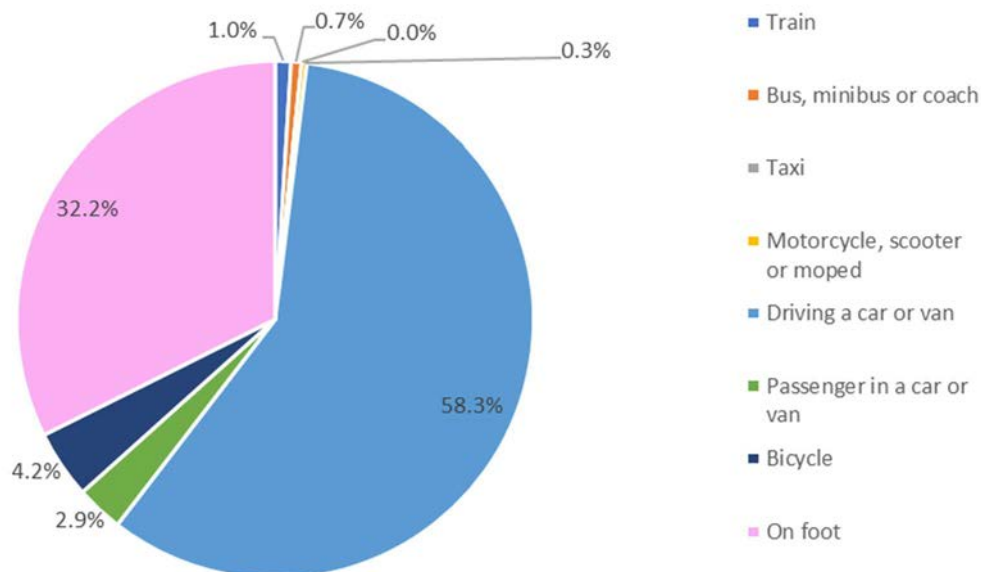
Industrial hubs are located in central Birmingham, north-east Birmingham, to the south of Birmingham Airport and in the west of Coventry (which is in proximity to Balsall Common).

3.5 Commuting Mode Shares – Internal

Census 2011 data has been used to identify commuter travel patterns for trips within Balsall Common (i.e. internal to internal). Of the 3,081 economically active residents of Balsall Common, 10% work in Balsall Common itself (thus Balsall Common has a 10% internalisation rate).

Figure 3.3 shows the commuting mode share for these internal commuter trips.

Figure 3.3: Commuting Mode Share – Internal Trips



Source: Census 2011

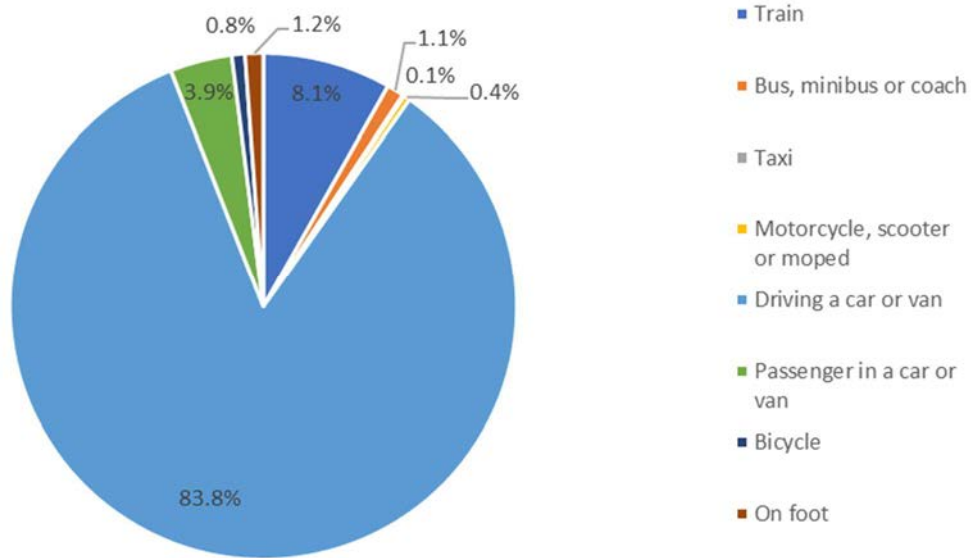
Figure 3.3 shows that:

- The majority of people who live and work in Balsall Common drive to work (58.3%)
- A significant number of commuters walk to work (32.2%)
- There is low bus usage for journeys within Balsall Common

3.6 Commuting Mode Shares – Origin

Similarly, using Census 2011 data, Figure 3.4 shows the mode share for commuters who reside in Balsall Common but work outside of the area.

Figure 3.4: Commuting Mode Share – Residents of Balsall Common to External



Source: Census 2011

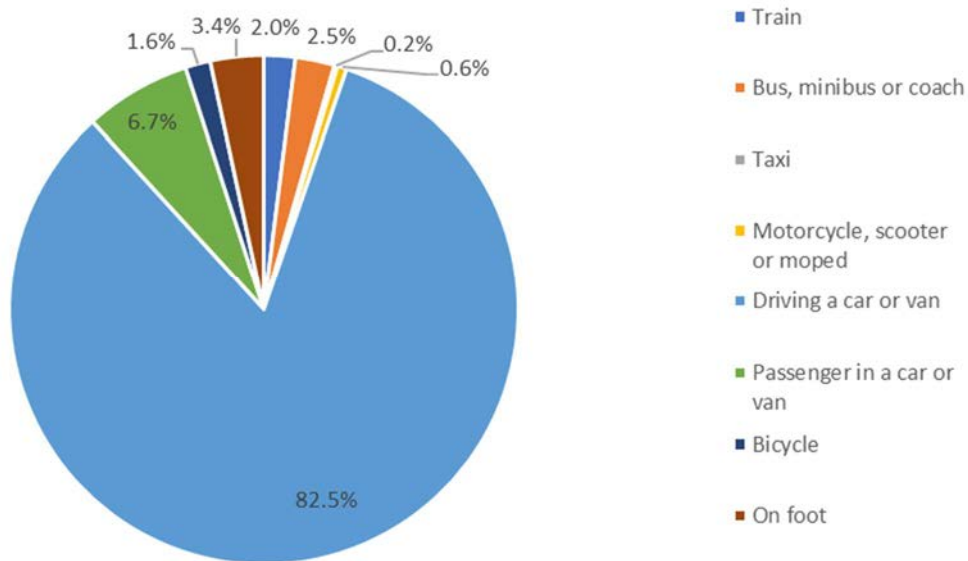
Figure 3.4 shows that:

- The majority of residents in Balsall Common commute to work by driving a car or van (83.8%)
- This is followed by train (8.1%) and being a passenger in a car or van (3.9%)
- A very small proportion of residents travel to work by bus

3.7 Commuting Mode Shares – Destination

Figure 3.5 shows the commuting mode share of inbound trips into Balsall Common.

Figure 3.5: Commuting Mode Share



Source: Census 2011

Figure 3.5 shows that:

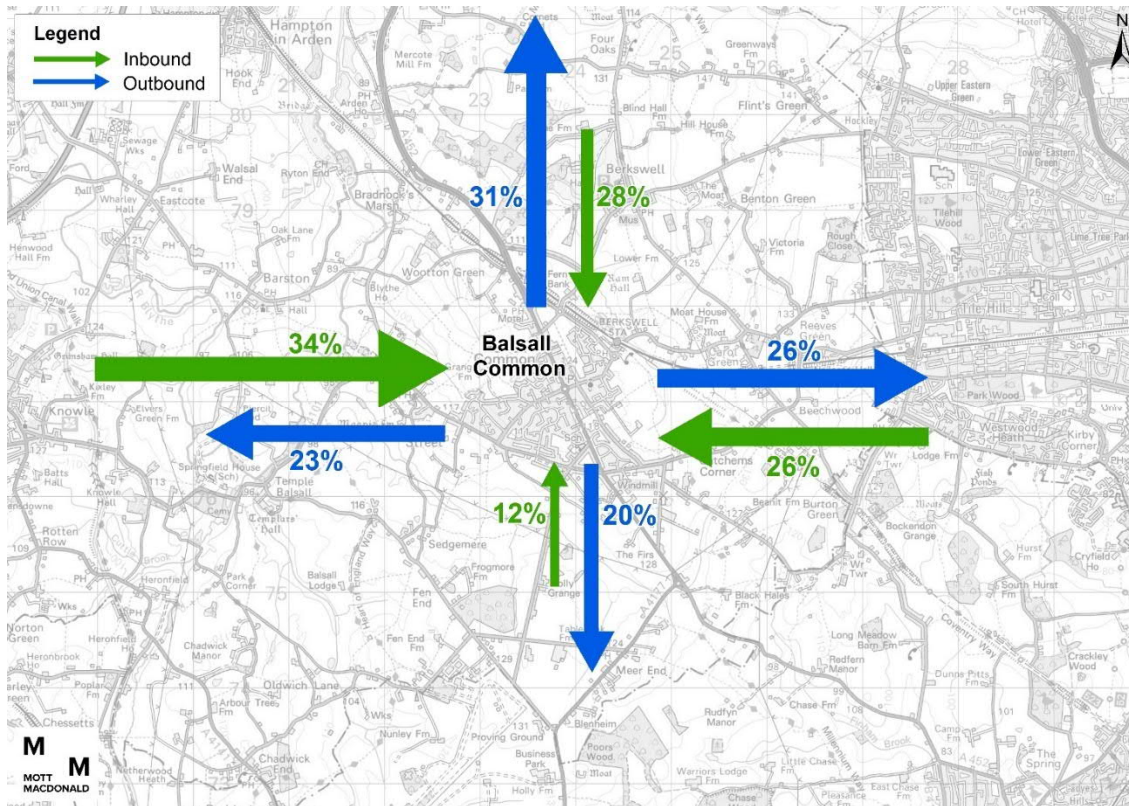
- The most popular mode is driving a car or van with 82.5% of the total share
- This is followed by being a passenger in a car or van (6.7%) and on foot (3.4%)
- The public transport mode share is low for trips to Balsall Common

3.8 Commuter Origins and Destinations

Figure 3.6 shows the distribution of inbound and outbound commuter trips for Balsall Common.

This was calculated using Census 2011 travel to work data, classified by mode. The figure shows the number of car, motorcycle and taxi trips, with public transport and active mode trips being excluded from the assessment. The assumed direction of travel is based on the fastest route to each workplace from Balsall Common.

Figure 3.6: Inbound and Outbound Commuter Trip Distribution (Vehicle Trips)



Source: Census 2011 / Reproduced from Ordnance Survey Mapping with permission of the Controller of HMSO © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. SMBC, 100023139, 2017

The main observations from Figure 3.6 are that:

- The largest number of commuters who reside in Balsall Common travel north (31%) towards Birmingham and areas of Solihull (via the A452)
- 26% of outbound commuters travel east towards Coventry
- The majority of inbound commuters (34%) access Balsall Common from the west (Solihull)
- The proportion of inbound and outbound commuter trips from the south is low when compared to other directions (access to/from locations such as Warwick and Leamington Spa)

Figure 3.7 provides the top ten origin and destination locations for the three key identified settlements. This was calculated using Census 2011 travel to work data and is classified by mode. The assessment was undertaken at an MSOA level, and is ranked from top to bottom based upon the total volume of trips to / from each location. The percentages shown in the table are the mode shares for that origin / destination.

Figure 3.7: Method of Travel to Work – Origin and Destinations

Balsall Common = Origin					
Mode of Transport		Car	Bus	Train	Walk/Cycle
Destinations	Solihull	728 - 81%	17 - 2%	18 - 2%	133 - 15%
	Coventry	593 - 92%	9 - 1%	30 - 5%	11 - 2%
	Birmingham	429 - 75%	2 - 0%	133 - 23%	3 - 1%
	Warwick	349 - 96%	4 - 1%	4 - 1%	7 - 2%
	Stratford-on-Avon	86 - 98%	0 - 0%	1 - 1%	1 - 1%
	North Warwickshire	86 - 100%	0 - 0%	0 - 0%	0 - 0%
	Rugby	33 - 97%	0 - 0%	1 - 3%	0 - 0%
	Nuneaton	32 - 100%	0 - 0%	0 - 0%	0 - 0%
	London	8 - 28%	0 - 0%	15 - 52%	1 - 3%
	Wolverhampton	18 - 100%	0 - 0%	0 - 0%	0 - 0%

Balsall Common = Destination					
Mode of Transport		Car	Bus	Train	Walk/Cycle
Origins	Solihull	474 - 77%	9 - 1%	6 - 1%	127 - 21%
	Coventry	222 - 84%	12 - 5%	10 - 4%	17 - 6%
	Birmingham	105 - 85%	5 - 4%	6 - 5%	5 - 4%
	Warwick	85 - 97%	1 - 1%	0 - 0%	2 - 2%
	Nuneaton	37 - 97%	0 - 0%	0 - 0%	1 - 3%
	North Warwickshire	32 - 94%	0 - 0%	1 - 3%	1 - 3%
	Stratford-on-Avon	25 - 100%	0 - 0%	0 - 0%	0 - 0%
	Tamworth	14 - 100%	0 - 0%	0 - 0%	0 - 0%
	Rugby	14 - 100%	0 - 0%	0 - 0%	0 - 0%
	Lichfield	12 - 100%	0 - 0%	0 - 0%	0 - 0%

Source: Census 2011

The main observations from Figure 3.7 are that:

- Solihull is the most significant workplace destination for Balsall Common residents. The majority of residents drive to work in Solihull, although 15% walk or cycle
- Coventry attracts a significant amount of commuter trips from Balsall Common, of which 92% travel to work via car
- Birmingham attracts the most commuters via rail (total of 133 commuters, or 23% of the mode share for commuters into Birmingham)

Solihull is the most significant residential location for people who work in Balsall Common.

3.9 Land use and Travel Demand Summary

A summary of the census data, trip generators, trip attractors and commuting travel patterns is as follows:

3.9.1 General Statistics

- Population growth has fluctuated in Balsall Common, and growth is lower than the regional and national averages
- Car ownership levels in Balsall Common are higher than the regional and national averages. This reflects the rural nature of Balsall Common and reliance on the private motor vehicle

3.9.2 Land Uses (trip generators and attractors)

- Balsall Common is generally residential in nature with a small retail hub in the centre
- Balsall Common is surrounded by agricultural farmland (green belt)
- Birmingham Airport is situated to the north-east of Balsall Common with a large commercial hub directly east of the airport

3.9.3 Commuter Travel Patterns

- 10% of the working population in Balsall Common also work in the area (thus a 10% internalisation rate). 58% of these commuters drive to work, and 32% walk
- Of the outbound commuters in Balsall Common, almost 84% commute to work by driving a car or van. 8% commute to work via train, with Birmingham the main destination
- Of the inbound commuters to Balsall Common, almost 83% travel via by driving a car or van. Around 4.5% of commuters access Balsall Common via public transport

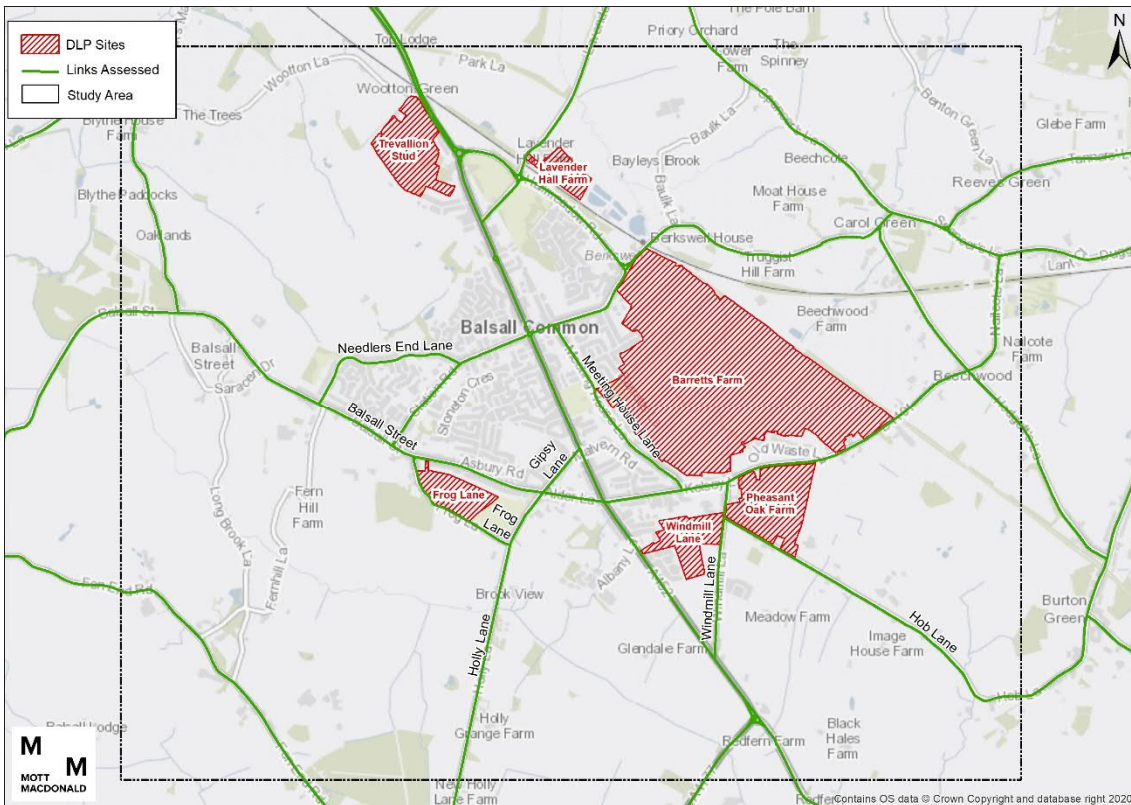
4 Highway Network

4.1 Introduction

The purpose of this section is to outline the key baseline characteristics of the Study Area highway network.

Figure 4.1 shows the network that will be assessed in this chapter.

Figure 4.1: Highway Network for Assessment



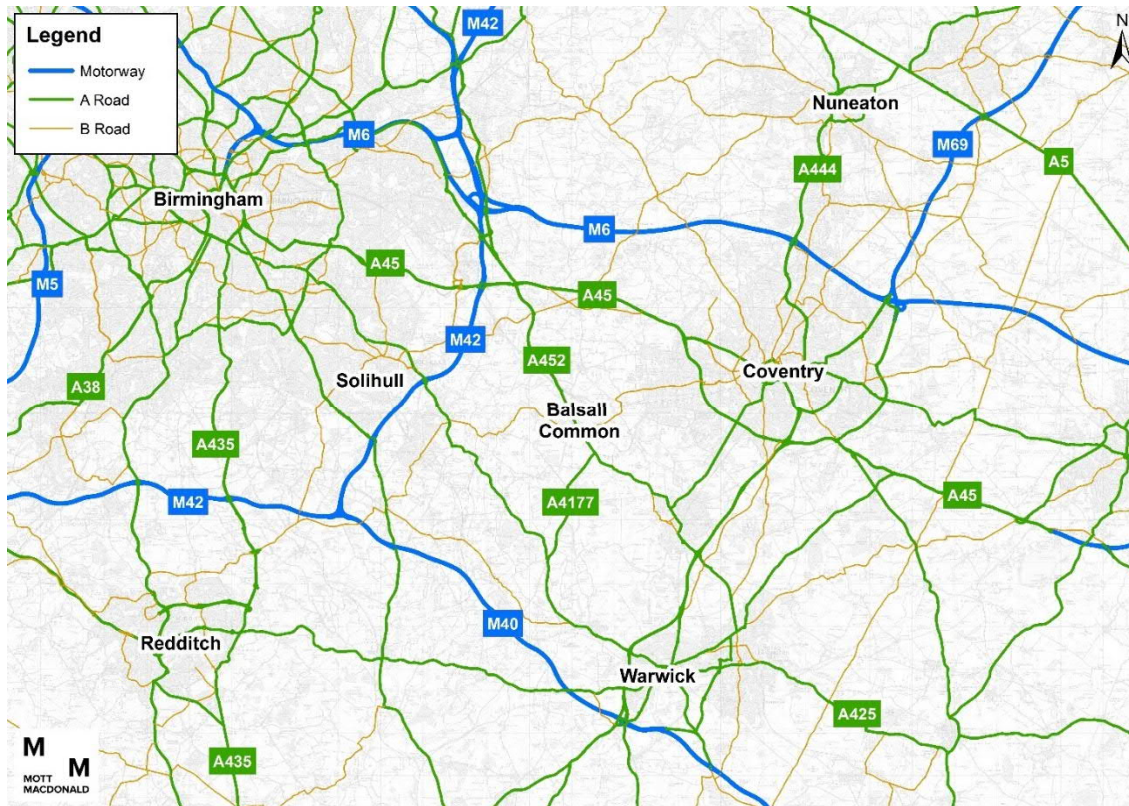
Source: SMBC and Ordnance Mapping 2020

4.2 Functionality

The following figures show:

- The context of the study area within the wider national highway network (Figure 4.2)
- Junction types on the highway network (Figure 4.3)
- Speed limits on the highway network (Figure 4.4)

Figure 4.2: Balsall Common Wider Highway Context



Source: Ordnance Mapping 2020

Figure 4.2 shows that Balsall Common is situated between the urban areas of Birmingham, Solihull and Coventry. The A452 runs north-south through the centre of Balsall Common, providing access to the M6 (to the north at M6 junction 4) for destinations such as Birmingham and Wolverhampton. South of Balsall Common, the A452 provides access to Warwick and Leamington Spa.

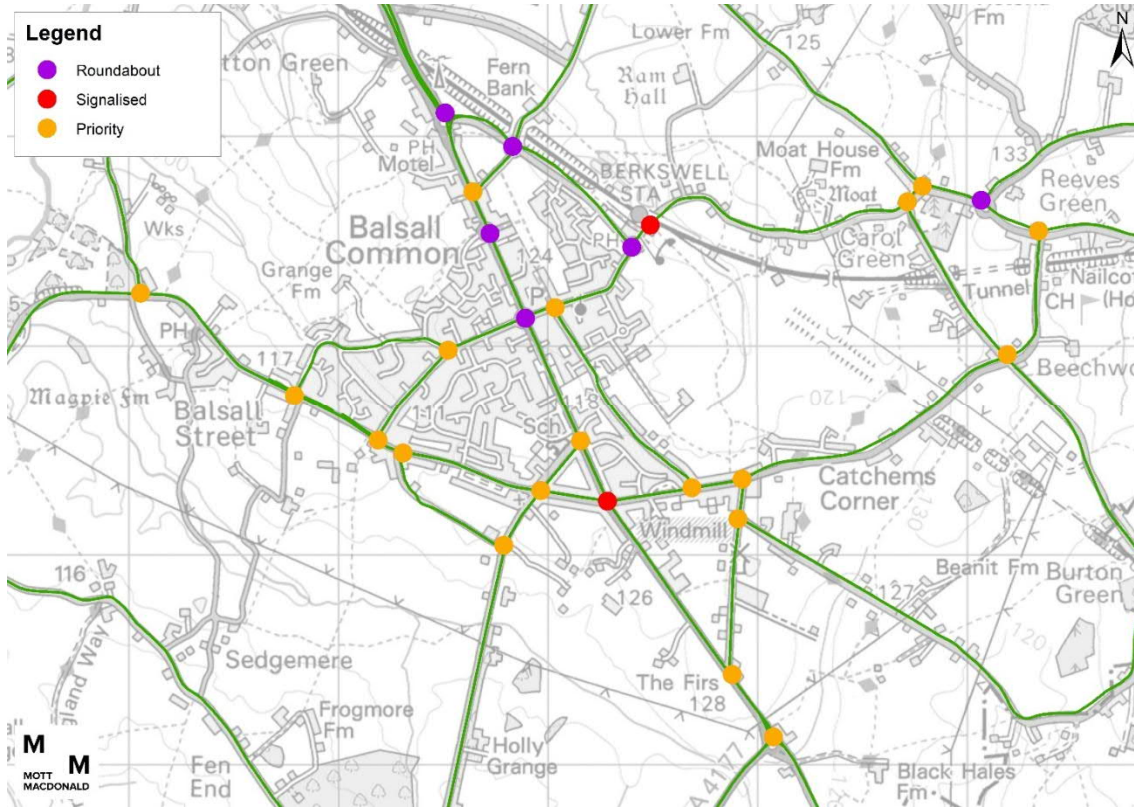
The B4101 runs in an east-west direction through Balsall Common and provides access to the M42, Solihull and Coventry.

In a wider context, the motorways as shown in Figure 4.2 can be summarised as follows:

- The M6 runs from the Catthorpe Interchange (near Rugby) towards Gretna in Scotland, via key destinations such as Birmingham, Stoke-on-Trent, Liverpool and Manchester. The nearest junction is M6 junction 4, accessed from Balsall Common via the A452
- The M40 provides a north-south route between London and Birmingham (via Oxford and Warwick). The nearest junction is M40 junction 15, accessed from Balsall Common in a southerly direction via the A452, A4177 and A46
- The M42 runs from Bromsgrove (Worcestershire) to Ashby-de-la-Zouch (Leicestershire) via key destinations such as Redditch, Solihull, the National Exhibition Centre (NEC) and Tamworth. Junctions 5 and 6 of the M42 are in close proximity to Balsall Common (via the B4101/A4141 or A452/A45 respectively)
- The M42 continues into the A42, providing a direct link to the M1. The M1 provides wider connectivity towards the north and north east of England and Scotland.

- The M69 runs from junction 2 of the M6 near Coventry (as shown) to junction 21 of the M1 near Leicester

Figure 4.3: Junction Types



Source: Mott MacDonald and Ordnance Mapping 2020

Figure 4.3 shows the junction types on the local highway network. It shows that the majority of junctions located along the highway network in Balsall Common to be assessed are priority junctions or roundabouts. Two signalised junctions are located within the Study Area; one at the Alder Lane / Kenilworth Road four-arm junction and one on Station Road (for access under the railway bridge).

Figure 4.4: Speed Limit



Source: Mott MacDonald and Ordnance Mapping 2020

Figure 4.4 shows the speed limits on the highway network. This figure shows that within the Balsall Common settlement, the speed limit does not exceed 30mph, with immediate surrounding roads being 40mph or 50mph.

4.3 Traffic Flows

4.3.1 Traffic Data

The following sub-section uses existing traffic data which is summarised in Figure 4.5. This figure shows the location of existing Automatic Traffic Counts (ATCs) and turning counts from 1 January 2014 to 28 February 2017. These were provided by SPECTRUM; this was a database of traffic data maintained by Mott MacDonald on behalf of the West Midlands Combined Authority and its seven component Metropolitan districts. It has now been replaced by TfWM Data Insight.

Figure 4.5: Existing Traffic Survey Locations



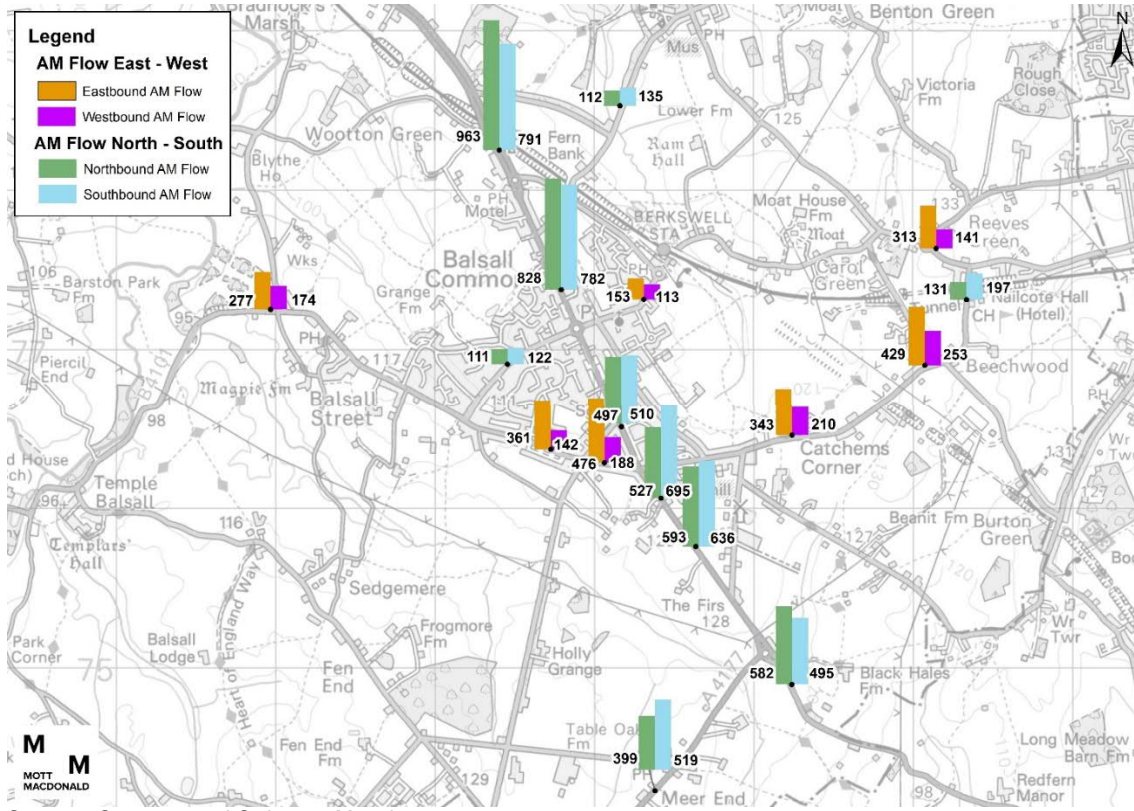
Source: Spectrum and Ordnance Mapping 2020

Figure 4.5 shows that there is a wide coverage of observed traffic data both within the Study Area boundary and outside. This data has been used to inform this document. Due to the recent lockdown that has occurred as a direct result of the UK Government response to the current Covid-19 pandemic, MM have not been able to update traffic data due to 'untypical' traffic conditions that have resulted since the lockdown.

4.3.2 Traffic Volume (2017)

Using relevant data collected at locations shown in Figure 4.6, the following figures show traffic volumes by peak period and by direction within the Study Area.

Figure 4.6: Traffic Volumes (Vehicles, AM Peak, 08:00-09:00)

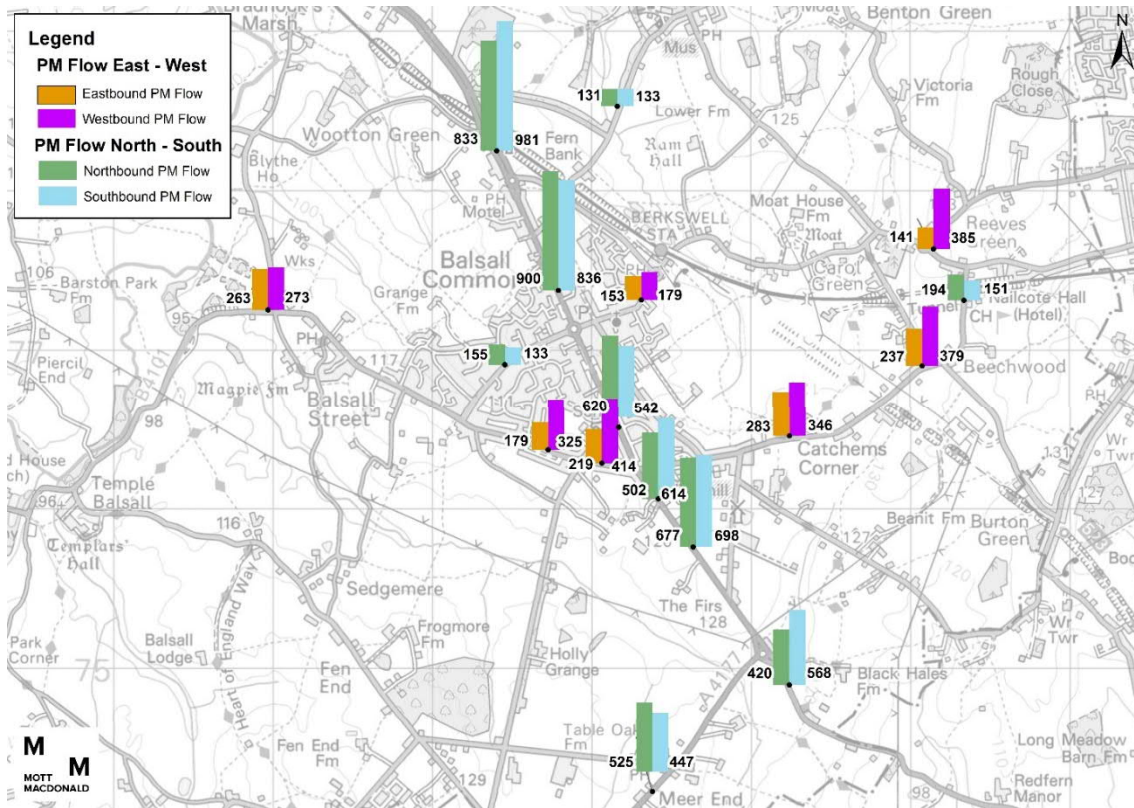


Source: Spectrum and Ordnance Mapping 2020

Figure 4.6 shows Kenilworth Road to have the largest volume of traffic in the AM Peak, particularly north of Balsall Common. There is a significant difference in the volume of traffic in each direction when comparing eastbound and westbound flows on the B4101. This tidal nature suggests that commuting movements are the predominant trip purpose at these times.

Figure 4.7 shows traffic volumes in the PM Peak period.

Figure 4.7: Traffic Volume (Vehicles, PM Peak, 17:00 – 18:00)



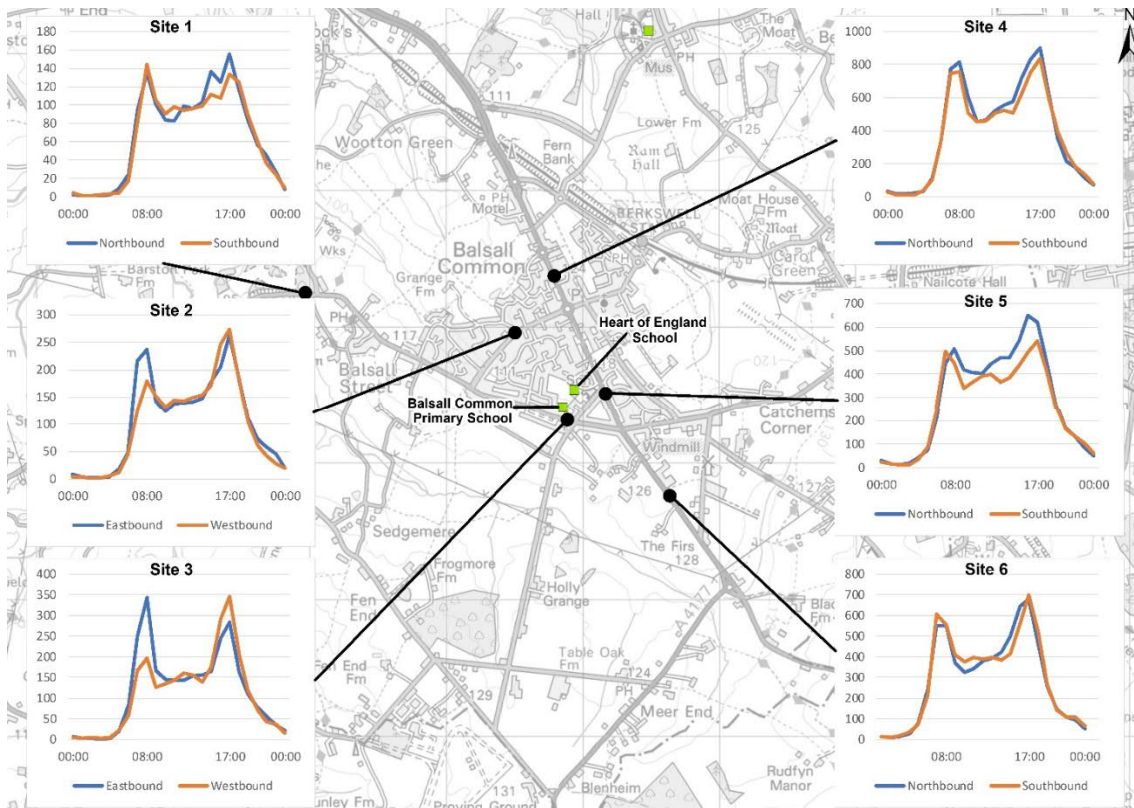
Source: Spectrum and Ordnance Mapping 2020

Figure 4.7 shows similar overall two-way traffic volumes as in the AM Peak, although the direction of travel is generally reversed (e.g. commuter trips outbound in the AM Peak and inbound in the PM Peak). Again, the highest traffic volumes within the Study Area are located on the A452 Kenilworth Road.

4.3.3 Traffic Profiles (2017)

Figure 4.8 shows the 24-hour traffic profiles at sites where existing 24-hour traffic surveys have been undertaken.

Figure 4.8: Traffic Profiles



Source: Spectrum and Ordnance Mapping 2020

Figure 4.8 shows that:

- The traffic profiles show significant peaks. This suggests that commuting movements are the predominant trip purpose at these times
- For north-south movements (sites 4, 5 & 6), these confirm the limited differences between directional peaks, but also show that east-west movements (sites 2 & 3) are more tidal
- For Site 5, there is also a surveyed rise in traffic between 14:00 and 16:00 that is not shown as widely when compared to the other sites. This is likely due to the proximity of the ATC to the existing primary and secondary schools in Balsall Common (Balsall Common Primary School and Heart of England School respectively)

4.3.4 Traffic Composition (2017)

Figure 4.9 shows the traffic composition in Balsall Common in locations where existing traffic data is classified by mode.

Figure 4.9: Traffic Composition



Source: Spectrum and Ordnance Mapping 2020

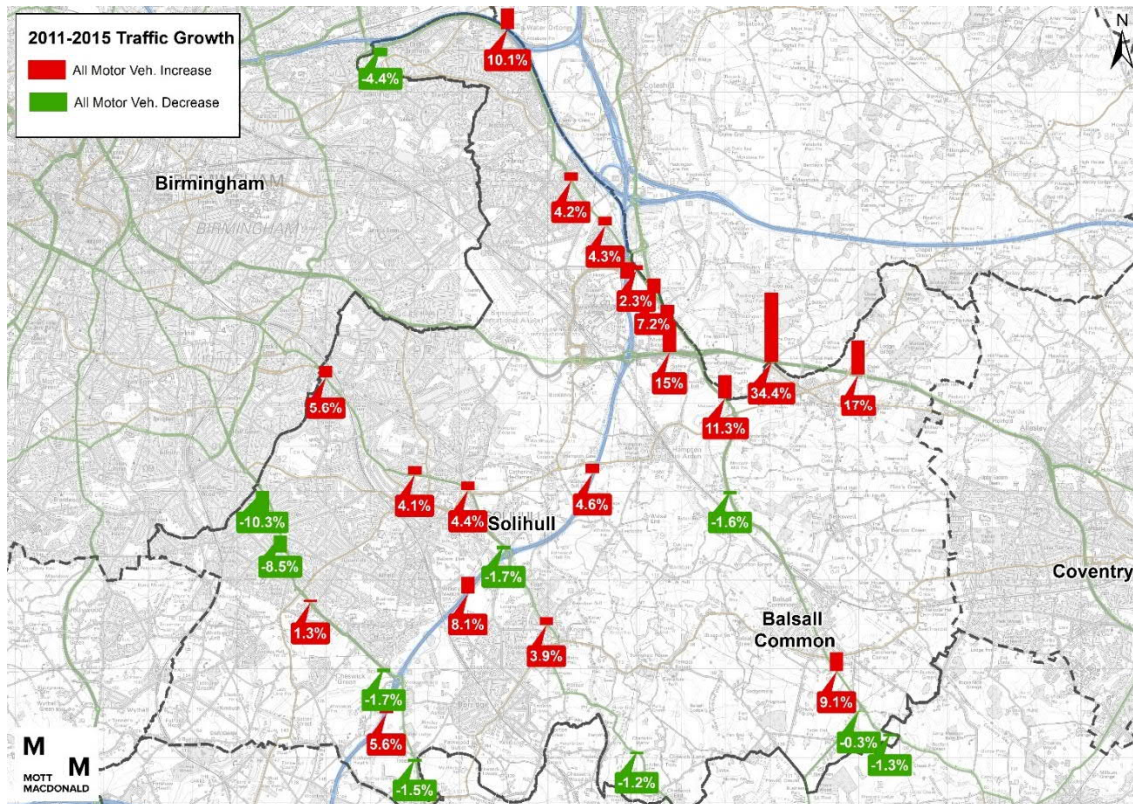
Figure 4.9 shows a:

- Low proportion of HGVs at all locations
- High proportion of LGVs on Kenilworth Road (A452) between Alder Lane and Windmill Lane. The traffic count in this location was undertaken over a seven-day period in October 2016. This coincides with the construction of a number of residential dwellings in this location which could be attributable to the high LGV proportion (construction-related vehicles)

4.3.5 Traffic Growth (2011-2015)

Figure 4.10 shows the growth in traffic within Solihull over a five-year period between 2011 and 2015. This is based upon Annual Average Daily Flows (AADF) taken from the Department for Transport traffic count database.

Figure 4.10: Traffic Growth



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Figure 4.10 shows that:

- Reductions in traffic volume are shown in and around Solihull Town Centre (decrease of 1.7%)
- Increase in traffic on the M42 (up to 8.1%)
- Significant increases in traffic on the A45 between Coventry and the M42 (up to 34.4%)
- Increased traffic volume north of the A45 (on the A452 and A446)
- General reductions in traffic to the south of the Solihull boundary
- Increases in traffic on the A452, including the count locations closest to Balsall Common (9.1%)

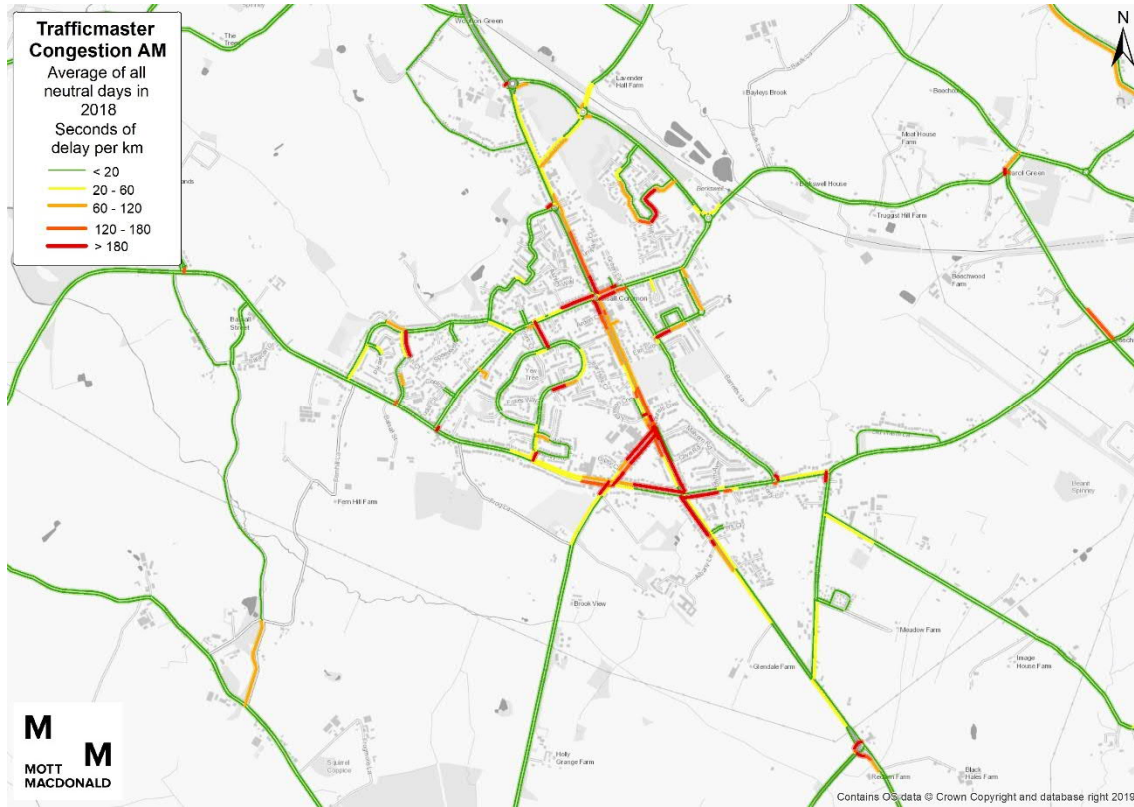
4.4 Traffic Delay (2018)

Figure 4.11 and Figure 4.12 below show highway network journey time performance using TrafficMaster data with the following criteria:

- Observations on all neutral weekdays in 2018
- AM Peak, 08:00-09:00 (Figure 4.11)
- PM Peak, 17:00-18:00 (Figure 4.12)

Figure 4.11 and Figure 4.12 show the delay per km caused in the peaks compared to free flow conditions. The results have been shown per km to negate results being skewed by different link lengths.

Figure 4.11: AM Peak Journey Time Factors (2016)



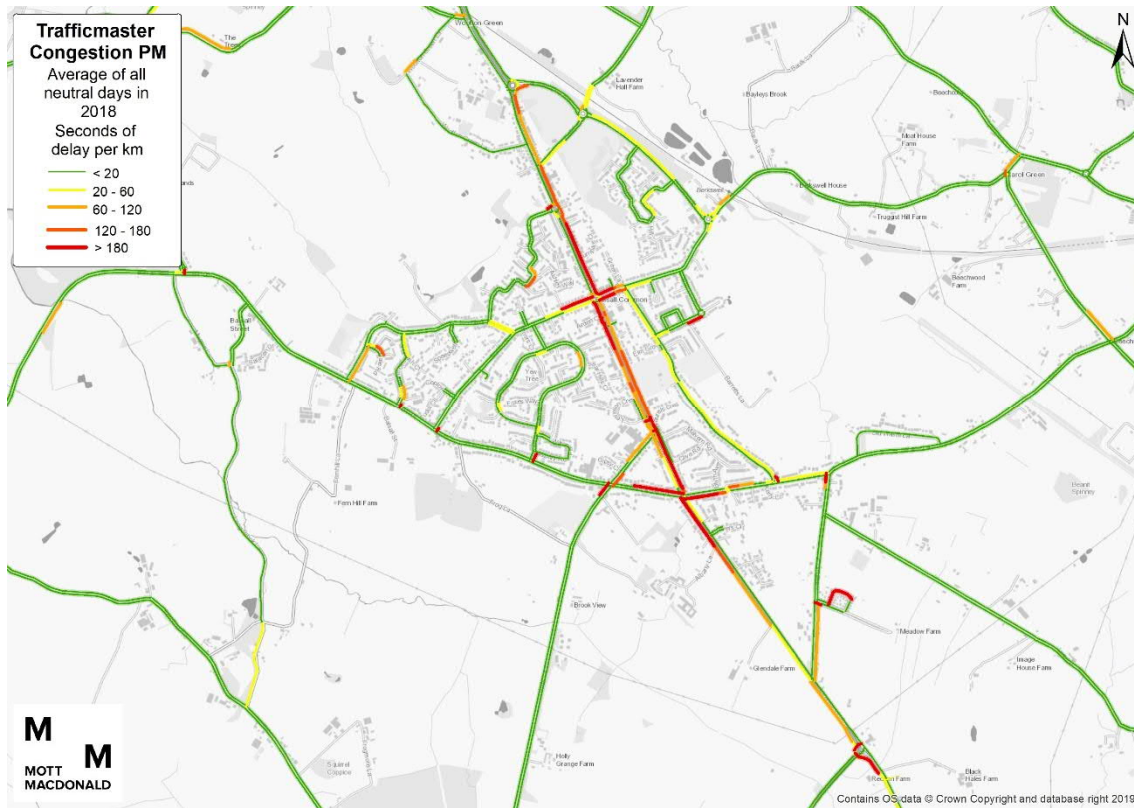
Source: TrafficMaster and Ordnance Mapping 2020

Figure 4.11 shows:

- Significant congestion on Kenilworth Road through Balsall Common
- Significant congestion on Kenilworth Road on the northbound approach to Balsall Common
- Congestion on all arms of the Kenilworth Road / Alder Lane signalised junction

Figure 4.12 shows the PM Peak journey time factors within the study area.

Figure 4.12: PM Peak Journey Factors



Source: TrafficMaster and Ordnance Mapping 2020

Figure 4.12 shows:

- Significant congestion on Kenilworth Road through Balsall Common
- Significant congestion on Kenilworth Road on the northbound approach to Balsall Common

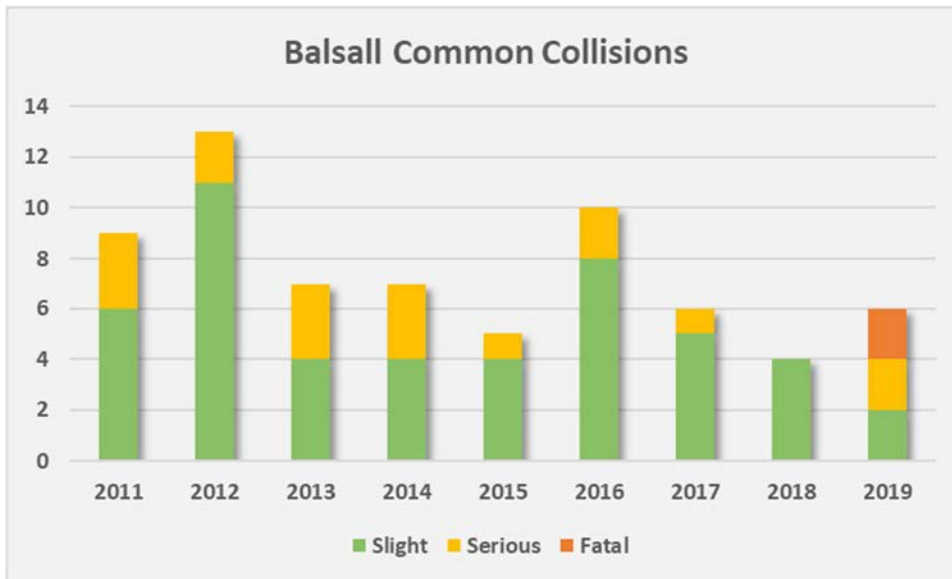
It must be noted that TrafficMaster data provides information regarding link journey times and speeds and does not identify congestion and queuing on individual junctions.

4.5 Road Safety

4.5.1 Overview

Using the previously defined study area, this assessment considers the formal personal injury collision record, primarily over the five-year period from 1 January 2015 to 31 December 2019. A summary of the collision history dating back to 2011 is shown in Figure 4.14.

Figure 4.13: Study Area Collision History 2011 to 2019



Source: TfWM Data Insight, 2020

Figure 4.14 shows that the number of collisions fluctuates year on year but with a slight trend towards less accidents as time goes on. There were two fatal accidents in 2019, though no fatal accidents were recorded between 2011 and 2018.

Figure 4.14 shows the collisions identified above spatially for the last five years of available data (2015 to 2019).

Figure 4.14: All Vehicle Collisions (2015 – 2019) within the Study Area



Source: TfWM Data Insight, 2020

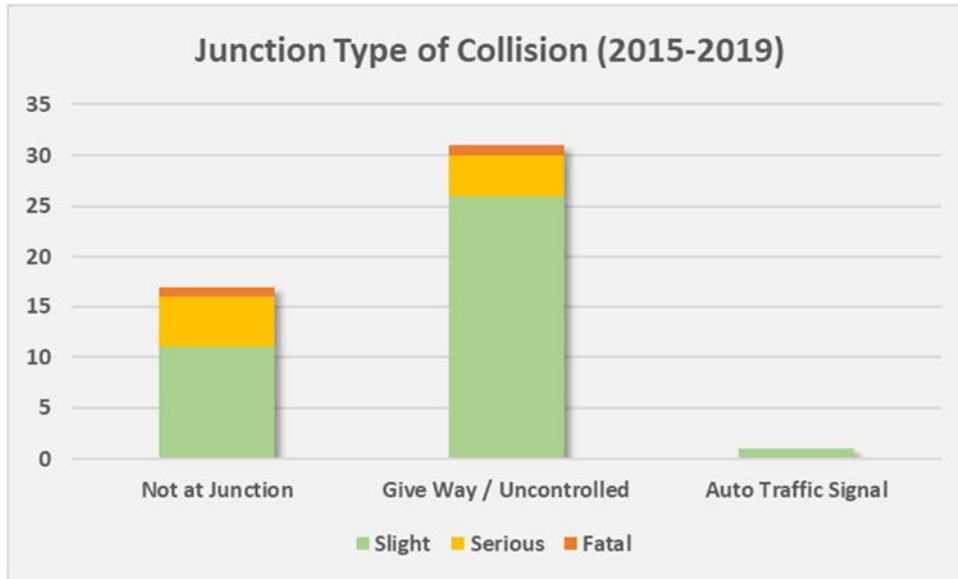
Figure 4.14 shows that one fatal collision occurred on the A452 to the north of Balsall Common, and one occurred on Station Road to the west of the A452. The fatal collision on the A452 to the north of Balsall Common involved a pedestrian under the influence of alcohol and the cause of the fatal collision on Station Road was not recorded but involved a motorcycle rider.

There were three slight collisions and one serious collision on the A452 through Balsall Common Village. To the east of Balsall Common there are a number of collisions on the rural roads, most of which result in a slight injury.

4.5.2 Collision Severity by Junction Type

The 31 collisions between 2015 and 2019 (inclusive) resulted in 49 casualties. Figure 4.15 shows collision severity for each casualty by junction type.

Figure 4.15: Collision Severity by Junction Type (2015 to 2019 Inclusive)



Source: TfWM Data Insight

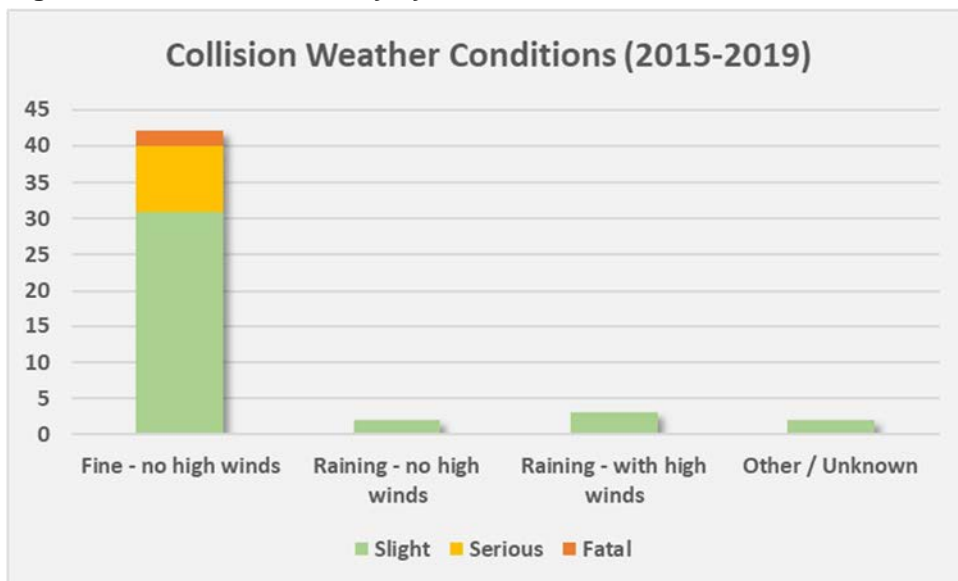
Figure 4.15 shows:

- The majority of collisions happened at give way / uncontrolled junctions, with most of these being slight but with one fatal collision
- Around a third of the collisions occurred away from a junction, including one fatal collision
- Only one collision occurred at signalised junctions, which resulted in a slight injury

4.5.3 Collision Severity by Weather Conditions

Figure 4.16 shows collision severity for each casualty by weather conditions.

Figure 4.16: Collision Severity by Weather Conditions



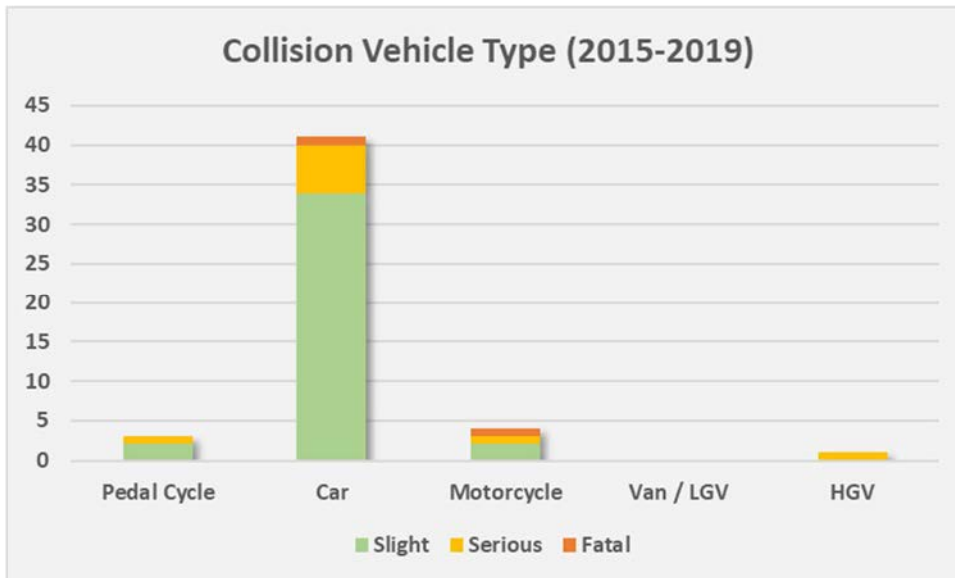
Source: TfWM Data Insight

Figure 4.16 shows that the majority of collisions occurred in 'fine' conditions, including both fatal and all slight collisions.

4.5.4 Collision Severity by Vehicle Type

Figure 4.17 shows collision severity for each casualty by the vehicle type.

Figure 4.17: Collision Severity by Vehicle Type



Source: TfWM Data Insight

Figure 4.17 shows:

- One fatal collision occurred on a motorcycle and one with a car
- The vast majority of casualties were in a car
- Over the last five years, there were three pedal cycle casualties, one resulting in a serious injury

4.5.5 Summary

In summary, formal personal injury collisions have been assessed over a five-year period (2015 to 2019 inclusive) within the defined study area. This assessment has shown:

- Total of 31 collisions (2 fatal, 5 serious), resulting in 49 casualties
- Since 2011 the number of collisions has fluctuated, but with a slight trend of decline
- Most of the collisions were at uncontrolled junctions, followed by away from junctions, with only one collision at a signal-controlled junction
- Nearly all of the collisions occurred in 'fine' weather conditions, including both fatal collisions
- One fatal accident occurred on the A452 to the north of Balsall Common involving a pedestrian under the influence of alcohol
- The other fatal collision occurred on Station Road to the west of the A452 and involved a motorcyclist, but the cause was not recorded

4.6 Highway Network Summary

A summary of the above chapter is as follows:

4.6.1 Functionality

- Connections to the strategic highway network from Balsall Common are via the A452 (which runs north-south through Balsall Common) and the B4101 (which runs in an east-west direction through Balsall Common)
 - The motorway network as shown in Figure 4.1 provides connections to major cities such as Birmingham / Manchester (via the M6) and London / Oxford (via the M40)

4.6.2 Traffic Flows

- Analysis of existing traffic data in Balsall common shows the A452 to carry the largest volumes of traffic in both peak periods (largest volume to the north of Balsall Common)
- An analysis of traffic profiles show significant peaks in the AM and PM which suggests that commuting movements are the predominant trip purpose
- There is a low HGV proportion at the assessed sites

4.6.3 Traffic Delay

An assessment of TrafficMaster data shows the following:

- Significant congestion on Kenilworth Road through Balsall Common
- Significant congestion on Kenilworth Road on the northbound approach to Balsall Common
- Congestion on all arms of the Kenilworth Road / Alder Lane signalised junction in the AM

4.6.4 Road Safety

- Collisions have been assessed over a five-year period (2015 to 2019 inclusive) within the defined study area.
- This assessment has shown a total of 31 collisions (2 fatal, 5 serious) occurred over the last five years resulting in 49 casualties
- There were two fatal collisions, one on the A452 to the north of Balsall Common and one on Station Road to the west of the A452

5 Public Transport Network

5.1 Introduction

The purpose of this section is to outline key baseline public transport characteristics of the Study Area.

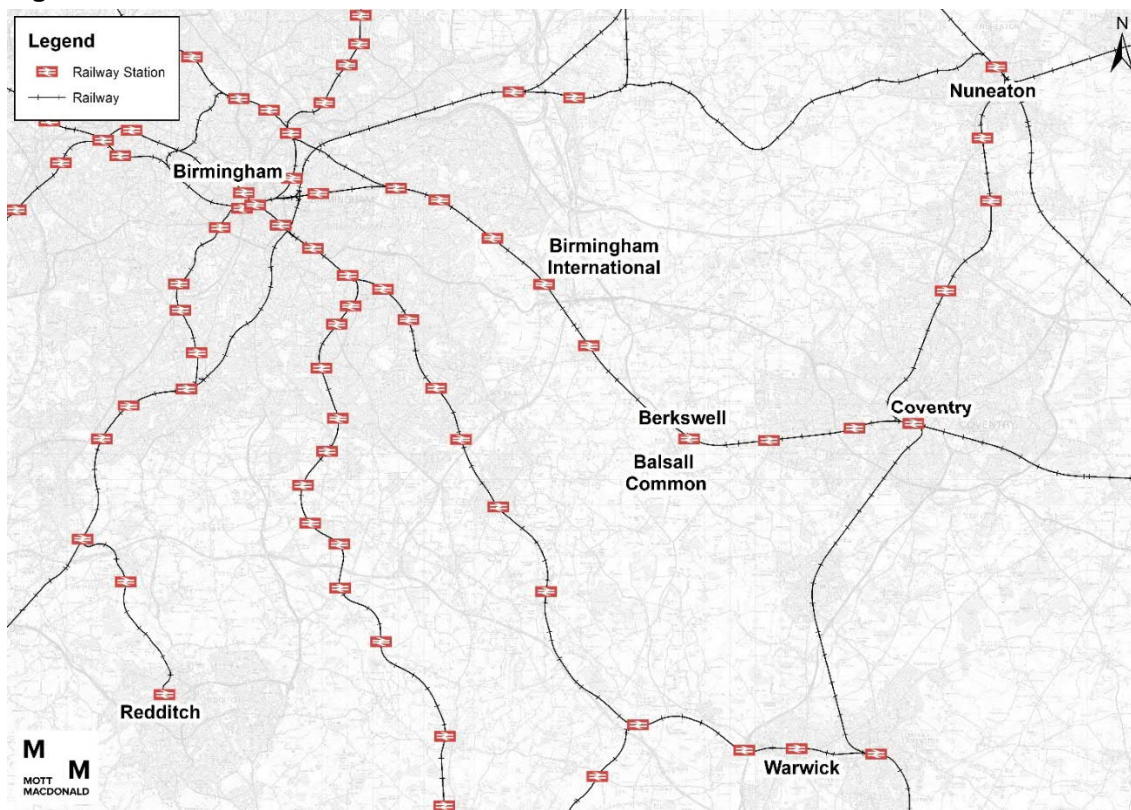
5.2 Rail

5.2.1 Rail Network

Balsall Common is served by Berkswell Station, situated on Station Road in the north east of Balsall Common. Berkswell Station is located on the West Coast Mainline between Birmingham and Coventry, and services calling at Berkswell Station are operated by London Midland.

Figure 5.1 shows Berkswell Railway Station and the regional rail routes.

Figure 5.1: Rail Network



Source: National Public Transport Access Nodes Database and Ordnance Mapping 2020

5.2.2 Rail Services

Table 5.1 summarises the services operating at Berkswell Railway Station.

Table 5.1: Summary of Rail Services from Berkswell

Destination	Duration	Frequency		
		Mon - Fri	Saturday	Sunday
Birmingham New Street	19-23 minutes	2 services per hour (from 06:21 to 23:40)	2 services per hour (from 06:21 to 23:40)	1 service per hour (from 08:47 to 23:48)
London Euston	2 hours 1 minute	2 service per hour (06:11 to 22:11)	2 service per hour (06:11 to 22:11)	1 service per hour (from 09:33 to 21:33)
Birmingham International	8 minutes	2 services per hour (05:55 to 23:40)-	2 services per hour (06:21 to 23:37)-	1 service per hour (08:47 to 23:47)
Coventry	11 minutes	2 services per hour (08:12 to 01:03) Services prior are every hour (05:53).	2 services per hour (08:12 to 01:03) Services prior are every hour (05:52).	1 service per hour (08:51 to 22:38)

Source: National Rail / West Midlands Trains

Table 5.1 can be summarised as follows:

- Two trains per hour to Birmingham New Street & London Euston (Monday to Saturday)
- Additional services to Northampton at peak times
- Hourly service between Birmingham New Street and Euston via Northampton on Sundays

Further to the services shown in Table 5.1, there are infrequent additional services which terminate at Coventry and Northampton.

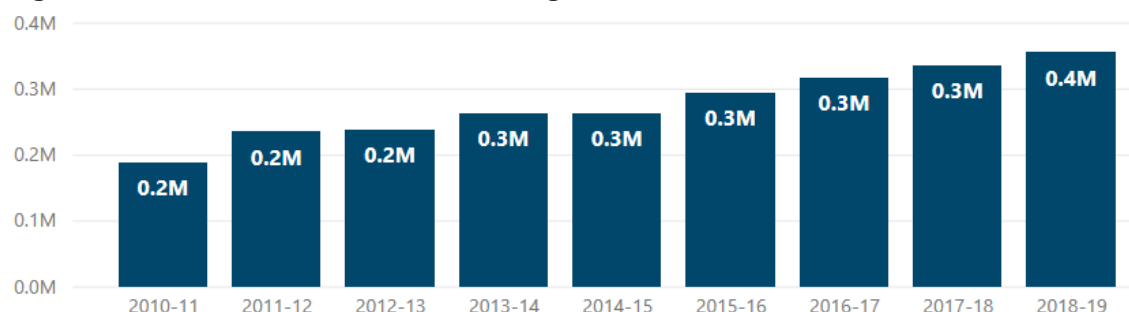
It can be anticipated that residents of Balsall Common travel to Birmingham International to access faster and more frequent train services to Birmingham, fast direct trains to London Euston and trains to other national destinations.

For passengers travelling to London Euston, journey times can be reduced by changing trains at Coventry or Rugby for Virgin Trains services (journey time from 1 hour 20 minutes from Berkswell to London Euston if connections to faster services are made).

5.2.3 Station Usage and Facilities

Station usage statistics have been obtained from the Office of Rail and Road. These figures show 355,928 station entries / exits for the year 2018-2019. Figure 5.2 shows indexed growth in rail patronage at Berkswell Railway Station from 2010/11 to 2018/19.

Figure 5.2: Indexed Growth in Rail Patronage



Source: Office of Rail and Road, 2020

Figure 5.2 shows that station usage at Berkswell over the assessed period has increased at a steady rate from 2010.

In terms of facilities at Berkswell Station, there are 90 parking bays with 5 accessible spaces. There is no charge for railways users to use the car park. Furthermore, there are 8 sheltered cycle storage spaces located on the platform.

The station is fully accessible with ramps to the platforms, and a step free route between platforms (210m route) via a public subway. An alternative route between platforms is via a footbridge with 39 steps up from Platform 1 and 44 steps down.

5.3 Bus Services

Table 5.2 summarises the bus services which operate within Balsall Common. For travel to the Heart of England School (services 180,181,182,183 and 184), services 182 and 183 are operated by Claribel Coaches, with the school providing ‘interim ‘closed door’ services covering the remaining routes.’³

Table 5.2: Summary of Bus Service Frequency

Service Operator and Number	Frequency		
	Monday to Friday	Saturday	Sunday
Johnson’s Excelbus			
87 – Coventry to Solihull	Hourly	Hourly	No service
88 – Solihull to Balsall Common	Hourly	Hourly	No service
88a – Solihull to Balsall Common	Hourly	Hourly	No service
Diamond Bus			
89 – Solihull to Coventry	Hourly during peak (every two hours during interpeak)	No service	No service
Claribel Coaches and Interim Services			
180 – Tile Hill to Heart of England School	Inbound service arrives at 08:35 Outbound service departs at 15:40	No service	No service
181 – Heart of England School to Parkhill Estate	Inbound service arrives at 08:40 Outbound service departs at 15:40	No service	No service
182 – Heart of England School to Eastern Green	Inbound service arrives at 08:35 Outbound service departs at 15:40	No service	No service
183 - Heart of England School to Meriden Millisons Wood	Inbound service arrives at 08:35 Outbound service departs at 15:40	No service	No service
184 - Heart of England School to Broad Lane / Glendower Avenue	Inbound service arrives at 08:35 Outbound service departs at 15:40	No service	No service
Flexibus			
233 – Solihull to Kenilworth	Outbound service departs at 10:45	No service	No service

Source: Network West Midlands

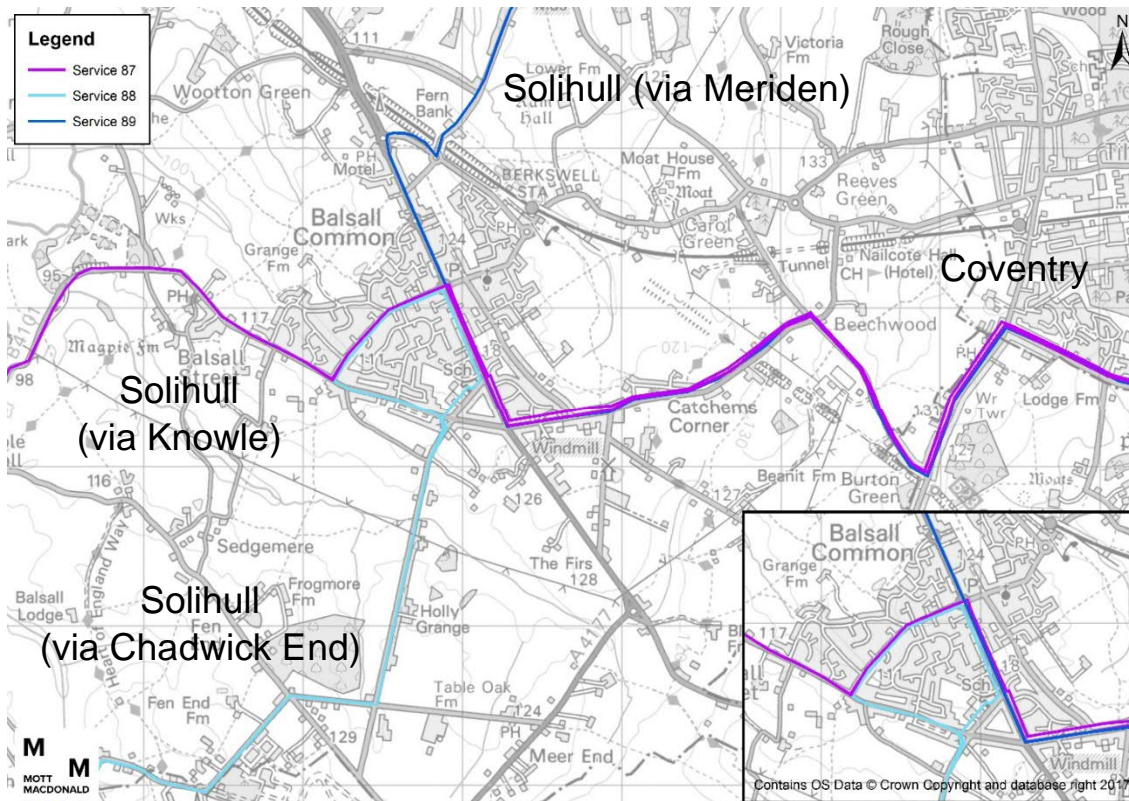
Table 5.2 shows that many of the operating services in Balsall Common are infrequent and / or do not operate at weekends. The 87, 88 and 89 services are the most frequent, operating hourly.

³ <https://heart-england.co.uk/wp-content/uploads/2020/08/Changes-to-Transport-Services-2.pdf>

All services operated by Mike De Courcey Travel are school bus services, serving the Heart of England School (Gypsy Lane, Balsall Common).

Figure 5.3 shows the above bus routes of which operate at an hourly frequency or more. This figure shows that the majority of Balsall Common is accessible by bus, although there are no bus services that serve Berkswell Railway Station (the nearest bus stop is located 150 metres away on Station Road, with service 233 operating there).

Figure 5.3: Bus Network



Source: Network West Midlands and Ordnance Mapping 2020

5.4 Public Transport Network Summary

A summary of the above chapter is as follows:

5.4.1 Rail

- Berkswell Railway Station serves Balsall Common and is located in the north-east of Balsall Common
- Situated on the West Coast Mainline, Berkswell Railway Station is served by trains operated by West Midlands Trains
- Passenger growth at Berkswell Railway Station is higher than the national average
- There are two trains per hour to Birmingham New Street & London Euston (Monday to Saturday) with additional services to Northampton at peak times

- For longer distance, direct journeys from Berkswell Railway Station, journey times can be reduced by changing to Avanti West Coast services at Coventry, Rugby or Birmingham International

5.4.2 Bus

- Many services in Balsall Common are infrequent and / or do not operate at weekends
- The 87, 88 and 89 services are the most frequent, operating hourly
- The majority of Balsall Common is accessible via bus, although there are poor interchange opportunities with Berkswell Railway Station

6 Active Modes Network

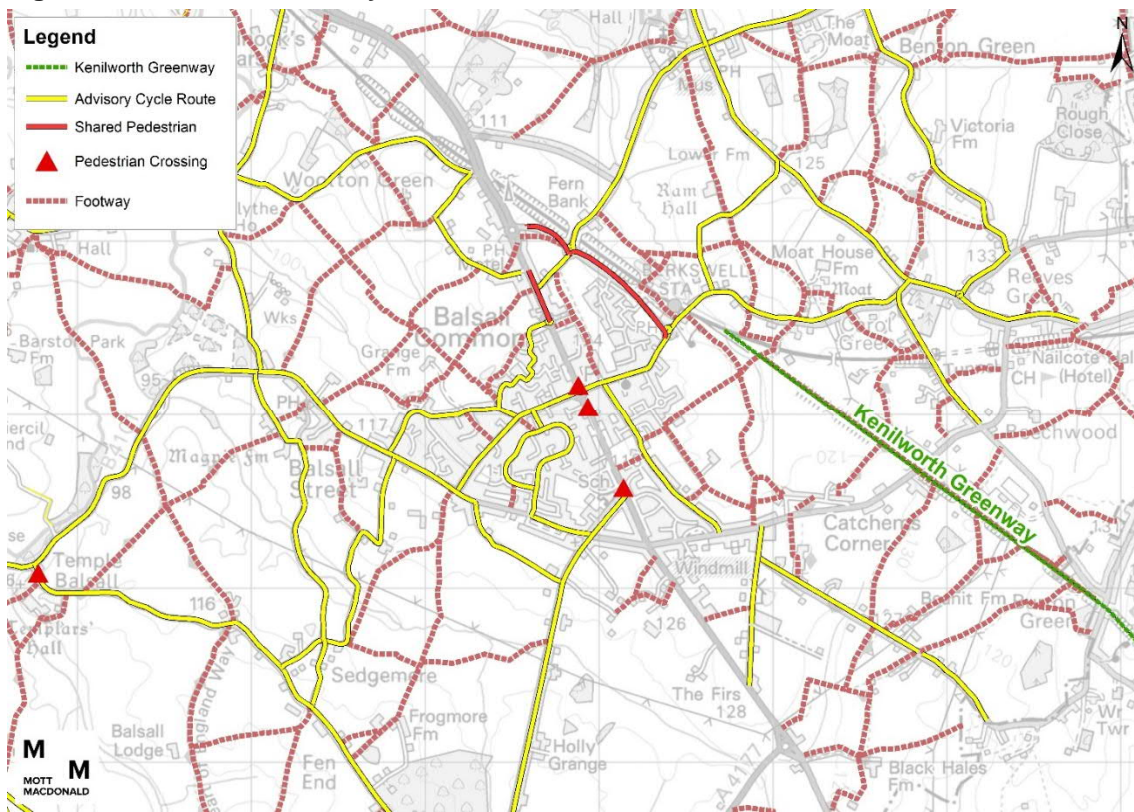
6.1 Introduction

The purpose of this section is to describe key baseline active mode characteristics of the study area.

6.2 Active Mode Networks

Figure 6.1 shows the main cycle and pedestrian infrastructure within and around the Study Area.

Figure 6.1: Pedestrian and Cycle Network



Source: SMBC and Ordnance Mapping 2020

Figure 6.1 shows that there are many advisory cycle routes within Balsall Common and the surrounding area.

Three signalised pedestrian crossings are located along Kenilworth Road within Balsall Common. Further to this, due to the wide nature of Kenilworth Road through Balsall Common and traffic there are pedestrian refuge islands located intermittently to improve pedestrian amenity and safety.

The Kenilworth Greenway route is a newly established route which has been converted from the track bed of the Kenilworth railway line into a “greenway” for walking, cycling and horse riding. This route provides access onto the National Cycle Network (Route 52).

6.3 Pedestrian and Cycle Safety

This section uses the same formal personal injury collision criteria as set out in Chapter 3. Within the study area, collisions involving pedestrian and cyclists constituted 6% and 4% of all recorded collisions respectively.

Figure 6.2 below shows the pedestrian and cycle collision locations and their severity within the Study Area.

Figure 6.2: Pedestrian and Cycle Collisions 2015 to 2019

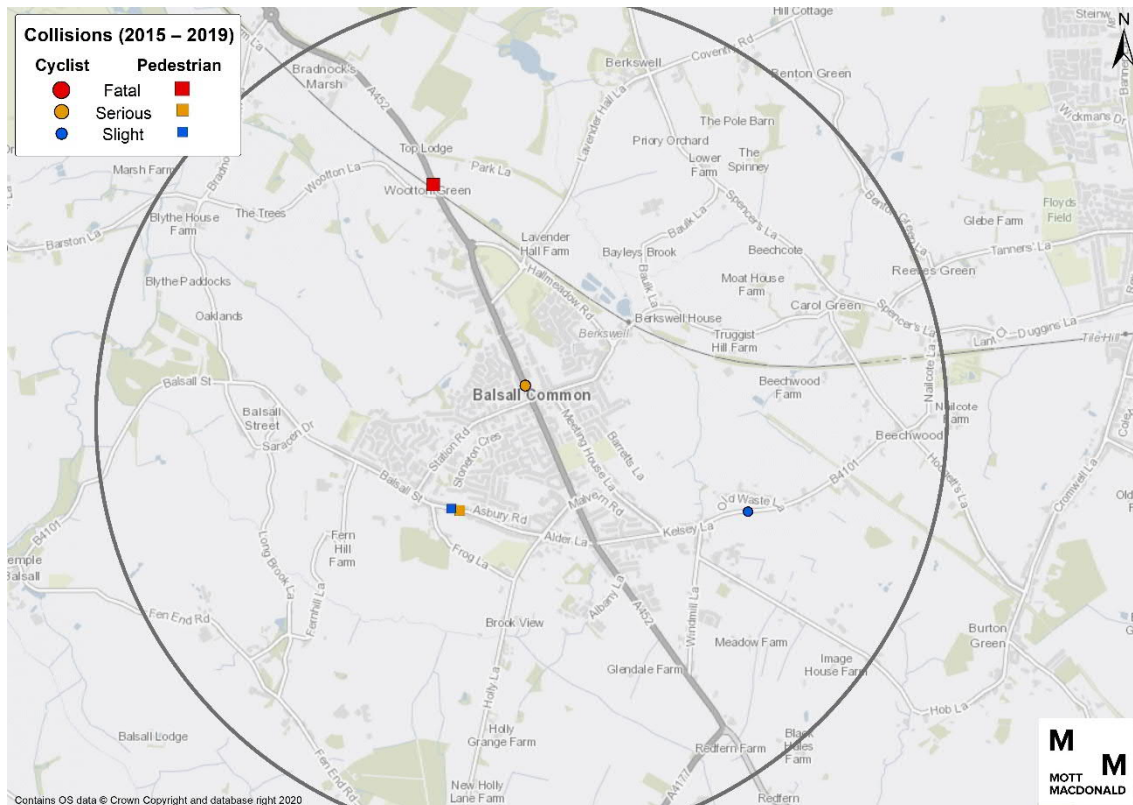


Figure 6.2 can be summarised as follows:

- Pedestrian Collisions
 - Total of three pedestrian collisions
 - There was one fatal pedestrian collision which occurred on Kenilworth Road north of the junction with Wootton Lane. Kenilworth Road is a dual carriageway in this location with a footpath on the northbound carriageway although there are no pedestrian crossing facilities. It was noted that the pedestrian was under the influence of alcohol.
 - There was one serious pedestrian collision that occurred on Balsall Street East.
- Cycle Collisions
 - Total of two collisions involving cyclists
 - There was one serious and one slight collision involving cyclists

6.4 Active Mode Network Summary

A summary of active mode network observations from this section is as follows:

Active mode networks

- There are many advisory cycle routes within Balsall Common and the surrounding area
- Signalised pedestrian crossings and pedestrian refuge islands are located along Kenilworth Road within Balsall Common (this is the road with the highest volume of traffic on, as identified in Chapter 3)
- The Kenilworth Greenway is a newly established active modes route which has been converted from the track bed of the Kenilworth railway. This route provides access onto the National Cycle Network (Route 52)

Pedestrian and Cycle Safety

- There was a total of three pedestrian collisions and two cyclist collisions within the study area in the assessed five-year period
- One fatal pedestrian collision occurred (on Kenilworth Road north of the junction with Wootton Lane)
- No fatal cyclist collisions occurred

7 Opportunities and Constraints Analysis

7.1 Introduction

This section will summarise the various physical, environmental and planning constraints within the Study Area, with a variety of factors considered. These constraints have been mapped and are shown in Figure 45 of Appendix A, with this section used to describe them.

7.2 Study Area and Methodology

The Study Area for the Constraints analysis differs from that in the Baseline, due to the fact that a larger area needs to be shown to include all the possible constraints on any potential transport intervention. The Baseline transport characteristics, on the other hand, need to be more focused in on Balsall Common as it is unnecessary to consider the wider transport network far out of Balsall Common. The Constraints Study Area is shown in Map 15 presented at Appendix A.

A total of 15 different types of constraints have been mapped and summarised in this section, based on data provided by Solihull MBC as well as High Speed Two. These are as follows:

- Committed Developments
- Green Belt
- Agricultural Land
- Land Ownership
- Heritage
- Environment / Ecology
- Geological Considerations
- Topography
- Landscape
- Amenity
- HS2
- Public Rights of Way
- Flood Risk
- Recreational Assets
- Utilities

7.3 Highway Constraints

There are a number of highway constraints within the study area, which are summarised in Table 7.1. These highway restrictions could have a potential impact on the movement of vehicles within Balsall Common.

Table 7.1: Highway Constraints within Balsall Common

Location	Type	Notes
Station Road, Balsall Common	Width	Vehicles over 2metres wide prohibited except for access
Lavender Hall Lane, Balsall Common	Width	Vehicles over 2metres wide prohibited except for access
Park Lane, Balsall Common	Width	Vehicles over 2metres wide prohibited except for access
Station Road, Balsall Common	Height	Railway bridge is 2.13metres high

Source: SMBC

7.4 Green Belt

A large part of the Study Area, with the exception of the Balsall Common settlement itself and land within the Coventry City Council district boundary, falls within the Green Belt. The extent of the Green Belt shown is as per the adopted Local Plan on Map 4 presented at Appendix A.

As part of the Local Plan Review, the Council has undertaken an appraisal of the Green Belt and this includes aspects of the Study Area. This is relevant to the Stage 2 work in relation to informing the options selection process, but for the initial high level constraints mapping we have assumed all land within the Green Belt as being of equal importance insofar as the NPPF tests for including land within the Green Belt.

Section 13 of the NPPF states that “*Certain other forms of development are also not inappropriate in the Green Belt provided that they preserve its openness and do not conflict with the purpose of including land within it. These are:*

- a) *Mineral extraction;*
- b) *Engineering operations;*
- c) *Local transport infrastructure which can demonstrate a requirement for a Green Belt location”*

Based on the above advice, the green belt is a constraint on development within Balsall Common parish but isn't a complete restriction on the provision of local transport infrastructure.

7.5 Agricultural Land

The majority of the Study Area falls within Grade 3 Agricultural Land Classification, as shown on Map 1 presented at Appendix A. Data has been provided by Solihull MBC.

The areas in the north and south-east of the Study Area, around Berkswell and between Coventry and Kenilworth, are designated Grade 2 agricultural land. In the west, largely following watercourses such as the River Blythe and covering Bradnock's Marsh and Temple Balsall, some of this land is designated Grade 4. Land in the west of Coventry that lies within the Study Area is designated as Urban.

7.6 Land Ownership

Due to the limited availability of information, which is confined to data on public sector assets owned by SMBC, public sector land assets have been identified and these are reviewed on Map 12 presented at Appendix A.

SMBC has freehold control of land in the north of Balsall Common to the east of the A452 Kenilworth Road, along part of the HS2 Alignment route, a thin strip along Kelsey Lane, larger segments in the south of the village west of the A452 Kenilworth Road and, lastly, very small segments dotted around the west of the village.

SMBC has leasehold of land in the north-west of Balsall Common, to the west of Dengate Drive / Greenfield Avenue. There is also a small segment between Green Lane and Riddings Hill just north-east of the central A452 Kenilworth Road / Station Road roundabout.

SMBC has possessory freehold of land in the west of the village between Needlers End Lane, B4101 Balsall Street and Station Road. There is also a small segment in the south of the village adjacent to Gipsy Lane.

7.7 Heritage

Listed buildings, scheduled monuments and conservation areas have been identified from data provided by Solihull MBC. Listed Buildings (Grade I, Grade II* and Grade II) and Scheduled Monuments are mapped on the Heritage Assets plan (Map 5), presented at Appendix A.

Listed Buildings: Several listed buildings can be found across the whole Study Area, with three particular clusters in Temple Balsall, Barston and Berkswell.

There are 12 Grade II* listed buildings within the Study Area, three of these located in Temple Balsall and two just north of Balsall Common near Berkswell rail station.

There are also two Grade I listed buildings in the Study Area, in Temple Balsall and Berkswell. These are:

- St Mary's Church, Temple Balsall
- Church of St John the Baptist, Berkswell

Scheduled Monuments: The Preceptory at Temple Balsall is located within the Study Area and is scheduled under the Ancient Monuments and Archaeological Areas Act (1979) to be of national importance.

Conservation Areas: There are four conservation areas within the study area, the largest by far being situated around the village of Berkswell, just north of Balsall Common. In addition, there are conservation areas in Temple Balsall, Barston and Walsal End, all to the west of Balsall Common. These are shown on the SSSI and Priority Habitats plan (Map 8), presented at Appendix A.

7.8 Environment / Ecology

Environmental and ecological assets are shown on the SSSI and Priority Habitats plan (Map 8), presented at Appendix A. Data has been provided by Solihull MBC.

Local Nature Reserves are located in the north-east of Balsall Common itself, as well as in west Coventry, partly inside the study area boundary. Berkswell Marsh is also located within the study area, an SSSI north-west of Berkswell village and close to the A452.

The River Blythe is designated as a SSSI and flows through the western part of the Study Area.

There are several local wildlife designations within the study area, with one in western Balsall Common itself, three to the north close to the A452, two to the south-east in Burton Green, five south-west in Balsall Street, Sedgemere, Fen End and Chadwick End, six in Temple Balsall and one in Barston.

7.9 Geological Considerations

Geological information is shown on the Geological Considerations plan (Map 3), presented in Appendix A. Data has been provided by Solihull MBC.

The majority of the Study Area lies within the Triassic Group, characterized by subgroups of siltstone and sandstone. This geological group covers most of the western section of the Study Area, Balsall Common and potential sites of transport intervention.

The eastern section of the Study Area lies within the Warwickshire Group, covering Berkswell village and Burton Green and the rest of the study area east of these two villages. This is characterized by siltstone and sandstone with subordinate mudstone.

A small section of the Study Area in the west is part of the Lias Group, most notably covering the village of Barston. The geology here predominantly contains limestone with interbedded mudstone.

7.10 Topography

Topographical information is shown on the Topography plan (Map 9), presented in Appendix A. Data has been provided by Solihull MBC.

The whole Study Area lies between 85 and 145m in elevation, evidencing its gently rolling landscape. Areas of lower elevation are generally in the west, particularly close to Hampton-in-Arden as well as Temple Balsall. The highest figures are seen in the east, particularly in the north near Four Oaks and Berkswell.

Balsall Common is between 106 and 120m in elevation, with a decrease to the immediate west and increase eastwards towards Coventry, close to Catchems Corner.

7.11 Landscape

There are no AONBs or Ancient Woodlands within the Study Area.

Waterman PLC have undertaken a study for the Council on Landscape Character and Balsall Common is situated between Landscape Character Areas 4 (Dark Green) and 5 (Pink) on the Waterman PLC Landscape Character Assessment Map shown in Appendix A.

LCA 4 is described as “an active rural agricultural landscape with arable and pastoral fields that support animal grazing”. LCA 5 is described as “generally flat extending to areas of undulating landscape towards the northern extent of the LCA”.

It is noted that the Balsall Common Rural Area is described in the HS2 Phase One Environmental Statement volume 5: landscape and visual assessment (2013) as “incorporating the fields surrounding Balsall Common, which are influenced by the settlement. It is a small scale farmed landscape with a varied, undulating topography, characterised by an irregular pattern of fields and narrow winding lanes”. The Balsall Common Residential Area is also described thus: “a large village characterised by predominantly post-war housing estates with associated facilities such as schools and shops”.

7.12 Amenity

Land Uses within the Study Area are shown on the Existing Land Uses plan (Map 13) as presented in Appendix A.

The Study Area is made up of large areas of arable farmland and a mosaic of nature reserves, forests and parkland. Balsall Common itself is made up principally of residential areas, with a concentration of retail, commercial and community uses focused on the High Street. There is one secondary school located in the south of the Village. There are some limited retail and

commercial areas present, at Bradnock's Marsh, Meer End, Burton Green and west Coventry. There is also a large quarry in the north of the Study Area, near Four Oaks.

7.13 HS2

All development associated with HS2 is shown in the HS2 plan (Map 6), presented at Appendix A. Data has been provided by High Speed Two Ltd.

There is a large construction boundary along the new HS2 Alignment route, running in a north-westerly direction to the east of Balsall Common itself.

Just south-east of Berkswell Station and east of Balsall Common, is the point where the HS2 Alignment route and the current West Coast Main Line cross. This is also immediately east of the proposed Barretts Farm development site. A new viaduct is being constructed, with temporary material stockpiles to the west of the HS2 route.

In addition, a construction traffic access road will be constructed within the construction boundary, as well as construction compounds and new Public Rights of Way (PROW).

Hallmeadow Road, Truggist Lane, A452 Kenilworth Road and B4101 Kelsey Lane are all designated construction traffic access roads.

7.14 Public Rights of Way

All Public Rights of way are shown in Map 14, presented at Appendix A.

There is an extensive footway network across the Study Area. There is only a small number of bridleways and shared pedestrian footways, however, as well as the Kenilworth Greenway running in the east of the study area.

7.15 Flood Risk

Flood Zones within the Study Area are shown in Map 2, presented at Appendix A.

The vast majority of potential flooding from rivers (Zone 3) is in the west of the study area, mainly around the River Blythe and its tributaries to the south and east.

Areas of possible extreme flooding from rivers (Zone 2) are around the River Blythe and in the east of the study area in Tile Hill, Coventry. A recent survey conducted by SMBC for Level 2 Strategic Flood Risk Assessment, extends the flood risk zone located by Barretts Farm.

7.16 Recreational Assets

All Recreational Assets, including Natural Green Space, Play Areas, Open Spaces, Woodland, Village Greens and Parks are included in the Parks and Recreational Areas plan (Map 7) as shown in Appendix A.

The proposed HS2 Alignment route runs through natural green space to the south-east of Balsall Common, and there is further natural green space near Hampton-in-Arden in the north and Temple Balsall in the west.

There is also amenity open space around north-eastern Balsall Common, including the Hallmeadow Road / Station Road roundabout, which is a likely site of potential transport intervention, if necessary. In addition, there is further amenity open space across the western half of Balsall Common.

There are two parks east and west of the village, both close to the A452 Kenilworth Road. In addition, there is a village green in the west of Balsall Common and in Berkswell as well as two play areas in Fen End and close to Berkswell rail station. Finally, there is a small woodland area in the south of Balsall Common.

7.17 Utilities

All Utilities within the Study Area, including Oil Pipelines, Power Lines, National Grid Routes and Pylons are included in the Utilities plan (Map 10) as shown at Appendix A.

An oil pipeline runs through the study area close to Four Oaks, Berkswell, Catchems Corner and finishing in Burton Green.

A power line with pylons runs from the north-east of the study area, past Berkswell and Catchems Corner, south of Balsall Common, north of Temple Balsall and joining a secondary line which cuts into the study area between Knowle and Temple Balsall.

National Grid lines are also in place across the western half of the study area, around Bradnock's Marsh, Barston and Temple Balsall.

8 Baseline Summary

8.1 Study Background

This baseline report forms part of a wider study addressing the potential impacts of housing growth on the Balsall Common area of SMBC, including the need (or not) of a bypass for the village and how this might be integrated with other projects and plans in the surrounding area.

In order to develop and propose solutions to meet the objectives of this study, it is necessary to understand the function served by the Study Area and how it performs, both now and in the context of future growth. This report, therefore, has identified the transportation, land use and environmental characteristics present at Balsall Common. These characteristics can be summarised as follows.

8.2 Study Area Function and Performance Summary

8.2.1 Land Use and Travel Demand

A summary of the Census data and data obtained from the Office for National Statistics has shown that population growth has fluctuated in Balsall Common between 2011 and 2017 and population growth is lower than the regional and national averages.

Of the working population in Balsall Common, 10% live and work in the area (thus a 10% internalisation rate). Of the internal commuters, 58% drive to work and 32% walk. Car use is much higher for commuters travelling to destinations outside Balsall Common, and for those commuters travelling in to the settlement for work.

Furthermore, within Balsall Common there are average car ownership levels of 1.8 vehicles per household. This is significantly higher than regional and national averages and reflects the reliance on private motor vehicles in rural areas.

A review of land uses in Balsall Common and the wider area showed that Balsall Common is generally residential, with a small retail hub in the centre and surrounded by agricultural farmland.

It is also recognised, that the land currently benefiting from planning permission for new residential development (committed developments) and further land allocated in the Local Plan for housing is developed, this will contribute to a substantial increase in the resident population at Balsall Common.

8.2.2 Highway Network

Analysis of existing traffic data in Balsall Common shows the A452 (which runs north-south through the settlement) carries the largest volume of traffic in both peak periods (largest volume to the north of Balsall Common). An analysis of traffic profiles show significant peaks in the AM and PM which suggests that commuting movements are the predominant trip purpose at these times.

An assessment of TrafficMaster data has helped identify significant congestion on Kenilworth Road, both through Balsall Common and on the northbound approach to the village.

The Kenilworth Road / Alder Lane signalised junction experiences congestion on all four arms in both peak periods.

In terms of road safety, formal personal injury collision data have been assessed over a five-year period within the defined study area. This assessment has shown a total of 31 collisions (2 fatal, 5 serious).

8.2.3 Public Transport Network

Situated on the West Coast Mainline, Berkswell Railway Station is located in the north east of Balsall Common and is served by trains operated by West Midlands Trains. Passenger growth at Berkswell Railway Station is higher than the national average, with around 350,000 station entries / exits for the year 2018-2019.

There are two trains per hour to Birmingham New Street & London Euston (Monday to Saturday) with additional services to Northampton at peak times. Analysis of Census 2011 journey to work data shows Birmingham as a key destination for rail commuters.

In terms of the bus network, many services in Balsall Common are infrequent and / or do not operate at weekends. The 87, 88 and 89 services are the most frequent, operating on an hourly basis.

It is arguable that public transport will need significant improvement as a result of proposed developments in Balsall Common, as efforts are made to increase its modal share away from the personal vehicle.

8.2.4 Active Modes Network

Pedestrian and cycle amenities were mapped in Balsall Common and the wider area, and this shows that there are many advisory cycle routes and good pedestrian amenity, including a newly established greenway which provides links to National Cycle Network Route 52.

In terms of pedestrian and cycle safety, there were a total of seven pedestrian collisions and four cyclist collisions within the study area in the assessed five-year period. There was one fatal collision, which involved a pedestrian and occurred on Kenilworth Road north of the junction with Wootton Lane.

8.3 Constraints Mapping Summary

- Committed Developments: Three sites with planning permission, one allocation carried over from the 2013 SLP and three sites in the Emerging Local Plan
- Green Belt: The vast majority of the Study Area is within the Green Belt, with the exception of Balsall Common itself and land within the Coventry City Council district boundary
- Agricultural Land: The majority of the Study Area falls within the Grade 3 Agricultural Land Classification, with smaller areas designated Grade 2, Grade 4 and Urban
- Land Ownership: SMBC has freehold control of land mainly in the north and south of the village, with other small areas of leasehold and possessory freehold land
- Heritage: There are several listed buildings in the Study Area, including two Grade I churches. There is also one scheduled monument and four conservation areas
- Environment / Ecology: There are several local wildlife centres in the Study Area, as well as four conservation areas, three local nature reserves and two SSSIs
- Geological Considerations: The majority of the Study Area lies within the Triassic Group, with the eastern section in the Warwickshire Group and a small area part of the Lias Group
- Topography: The whole Study Area lies within an 85m – 145m range of elevation, evidence of its gently rolling landscape. Balsall Common is between 10m and 120m in elevation

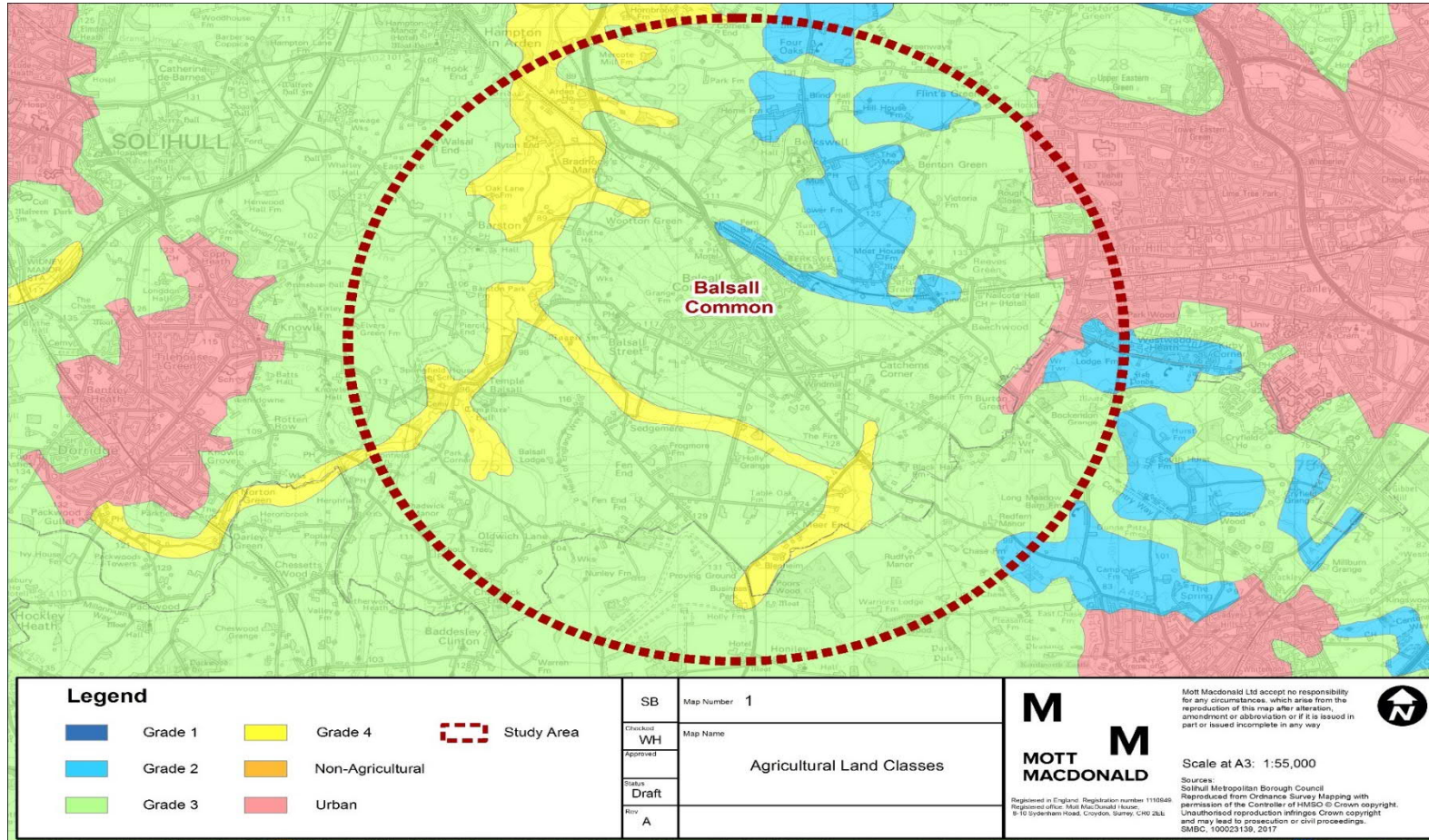
- Landscape: There are no AONBs or ancient woodlands in the study area, and other studies by HS2 and Waterman PLC evaluate the landscape as farmed, with undulating topography
- Amenity: The Study Area is largely made up of arable farmland, with a mosaic of nature reserves, forests and parkland. Balsall Common itself is largely residential
- HS2: The HS2 alignment runs directly south-east to north-west to the west of Balsall Common, with a large construction boundary set up around the new line
- Public Rights of Way: There is an extensive footway network across the Study Area, with some bridleways, shared pedestrian footways and the Kenilworth Greenway
- Flood Risk: The vast majority of potential river flooding (Zone 3) is in the west of the Study Area around the River Blythe, with small areas of possible extreme flooding (Zone 2)
- Recreational Assets: Most recreational assets in the Study Area are concentrated in and around Balsall Common itself, as well as in Fen End, Temple Balsall, Berkswell and HS2
- Utilities: An oil pipeline, power line with pylons and multiple National Grid lines run through the Study Area

8.4 Conclusions

In conclusion, the baseline review of the transport situation in Balsall Common has identified several issues which will need to be considered in the context of future growth in the area. This baseline review will therefore be used to support further work which seeks to assess the impact of proposed development and future growth in Balsall Common upon the transport network, and how this impact on the need for a transport intervention.

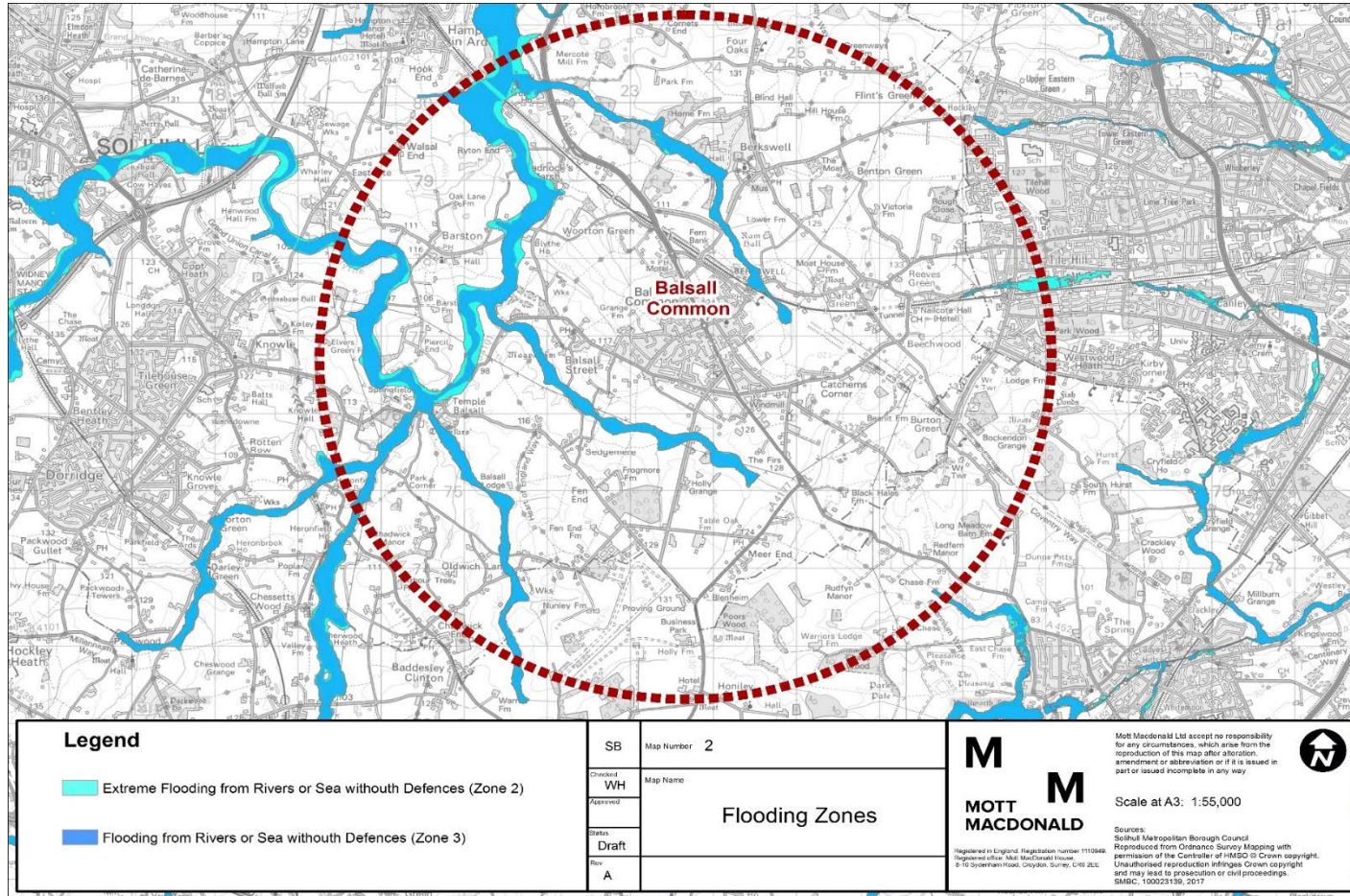
A. Constraints Mapping

Figure A.1: Agricultural Lane Classes



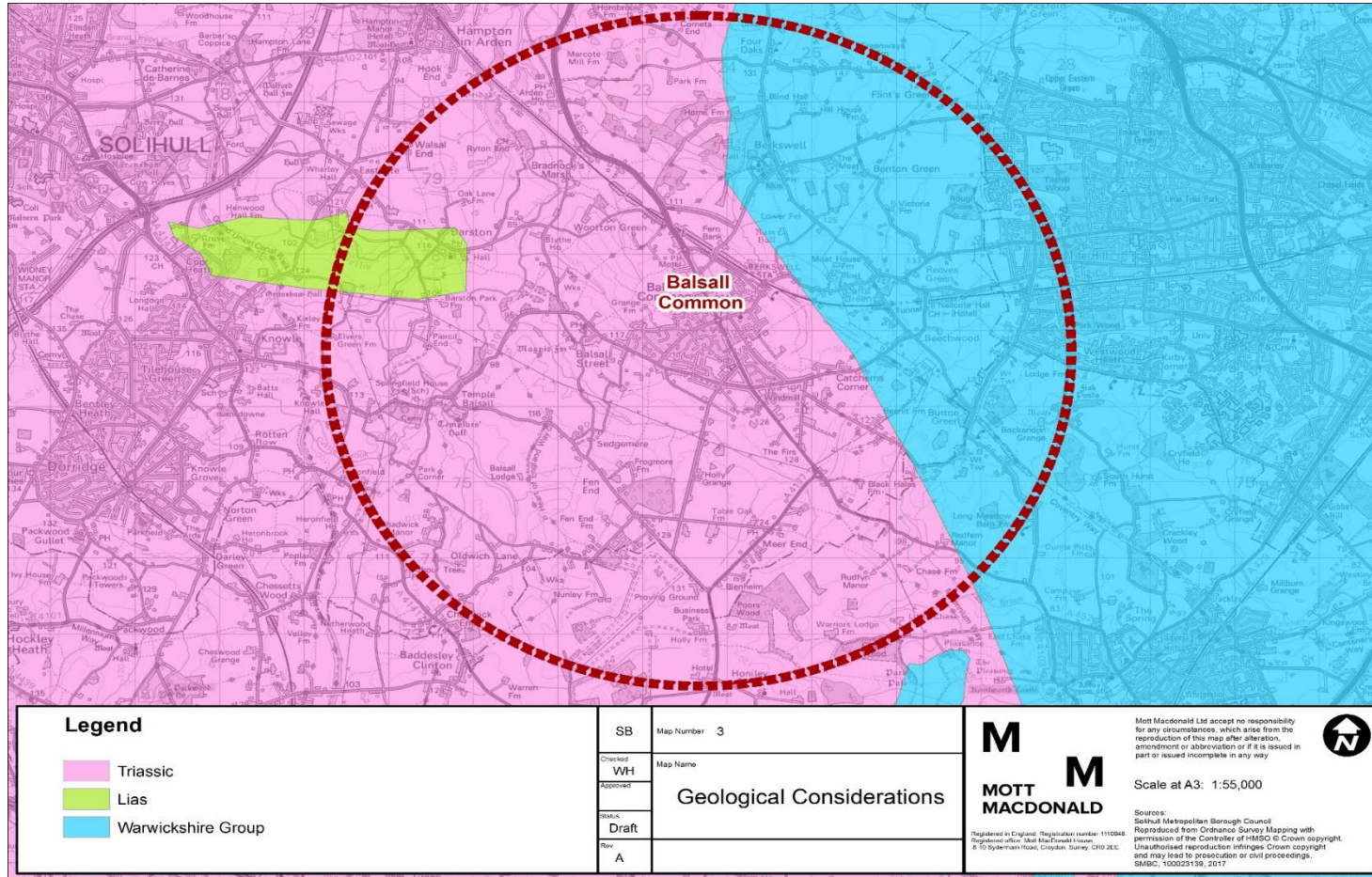
Source: Mott MacDonald

Figure A.2: Flooding Zones



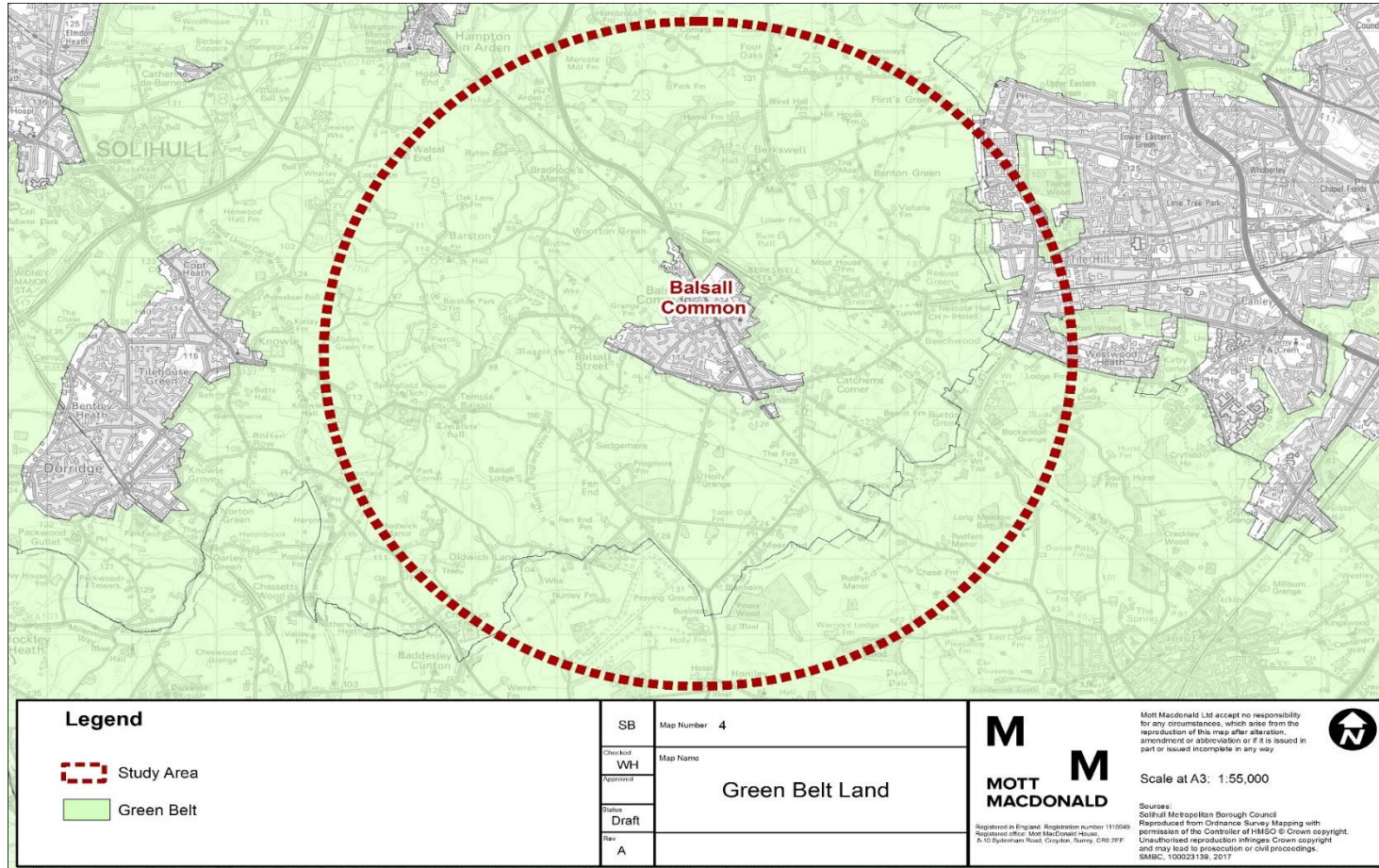
Source: Mott MacDonald

Figure A.3: Geological Considerations



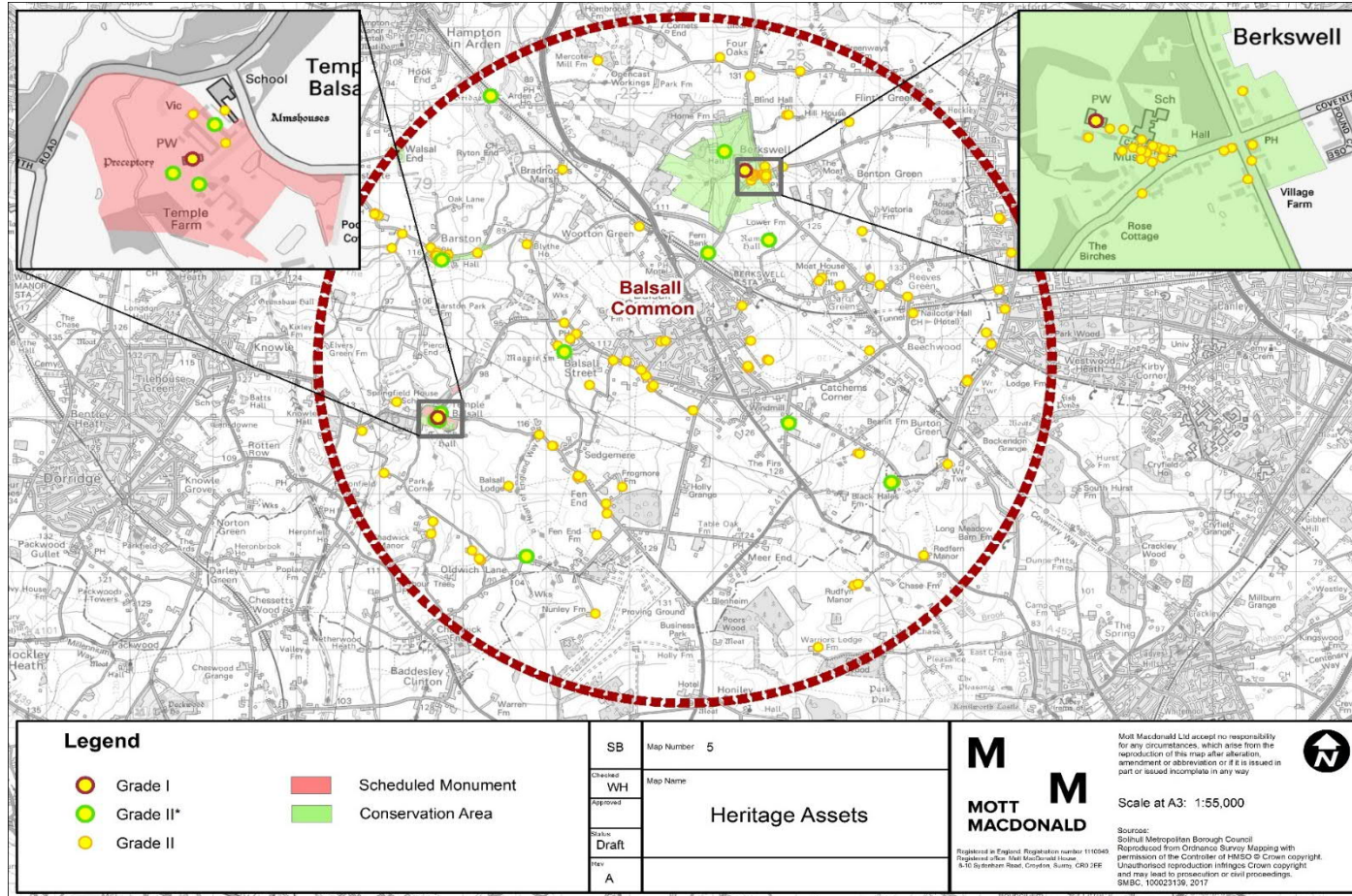
Source: Mott MacDonald

Figure A.4: Green Belt Land



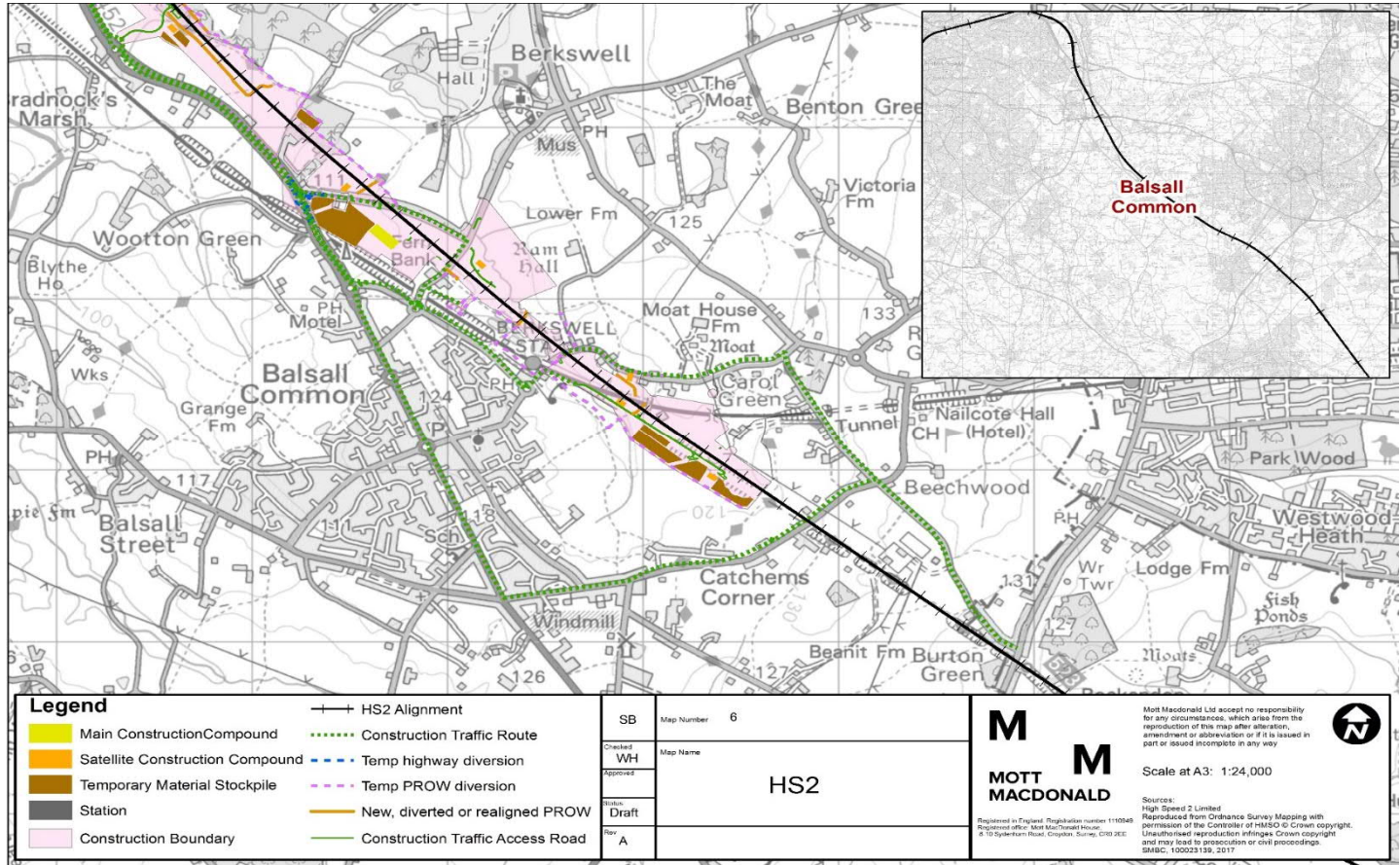
Source: Mott MacDonald

Figure A.5: Heritage Assets



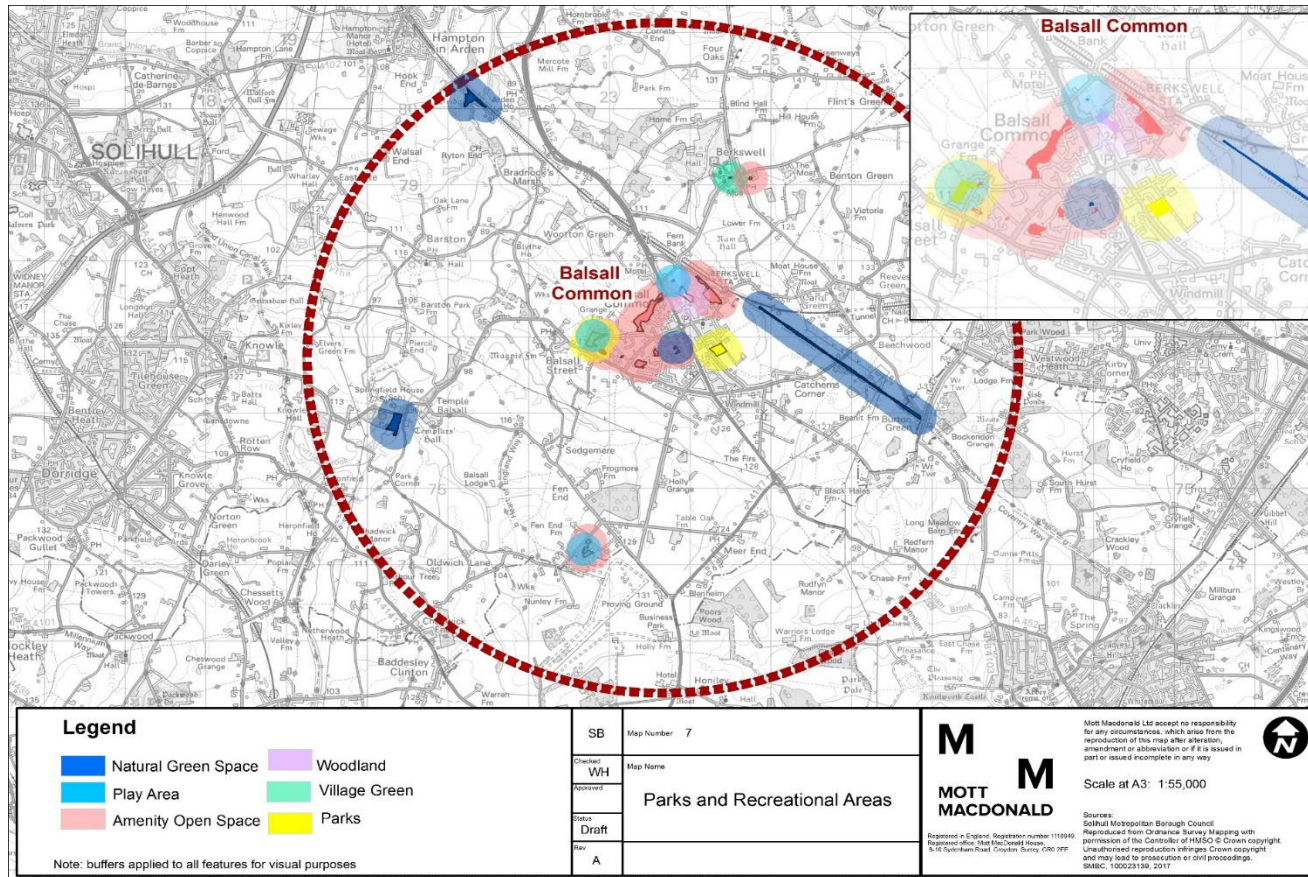
Source: Mott MacDonald

Figure A.6: HS2



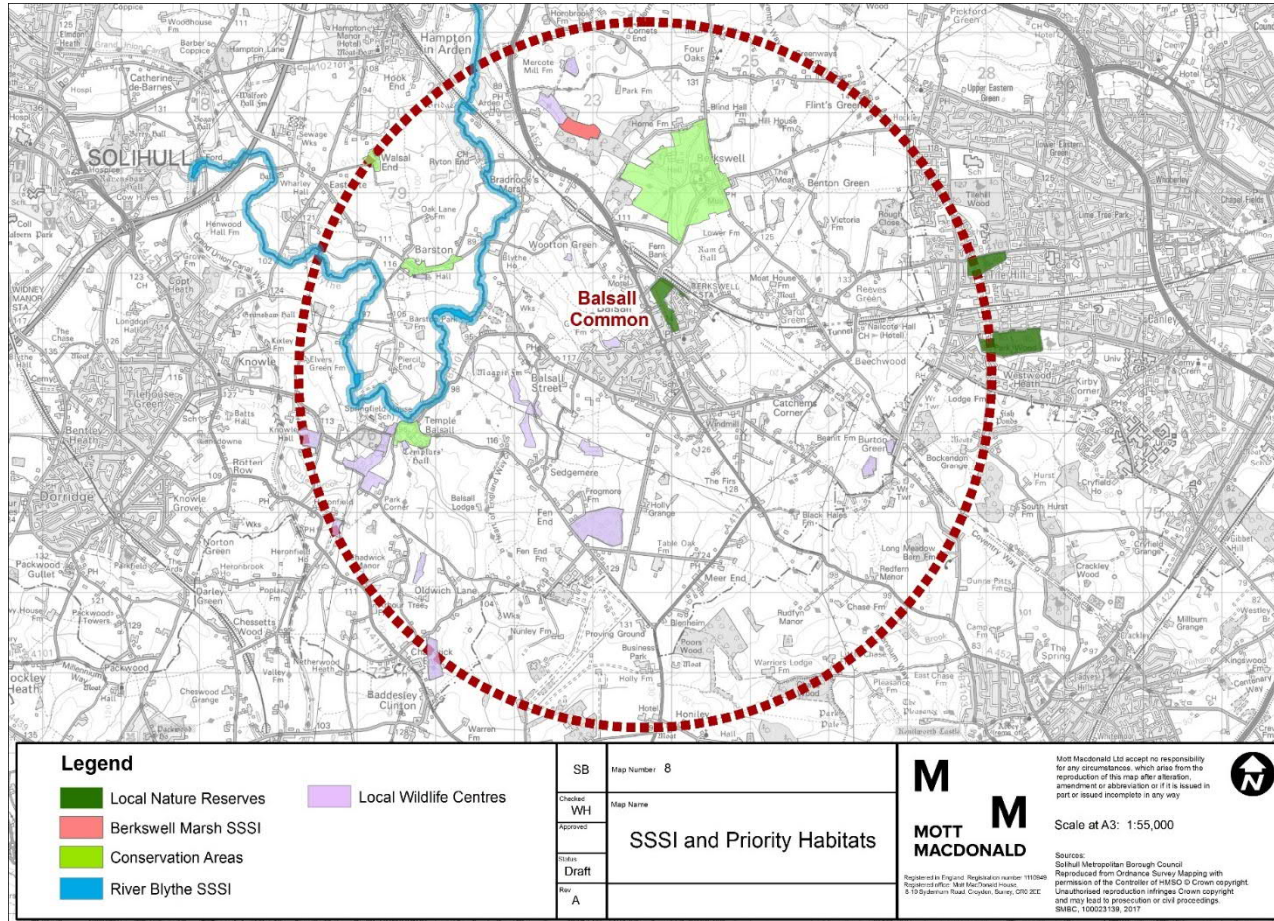
Source: Mott MacDonald

Figure A.7: Parks and Recreational Areas



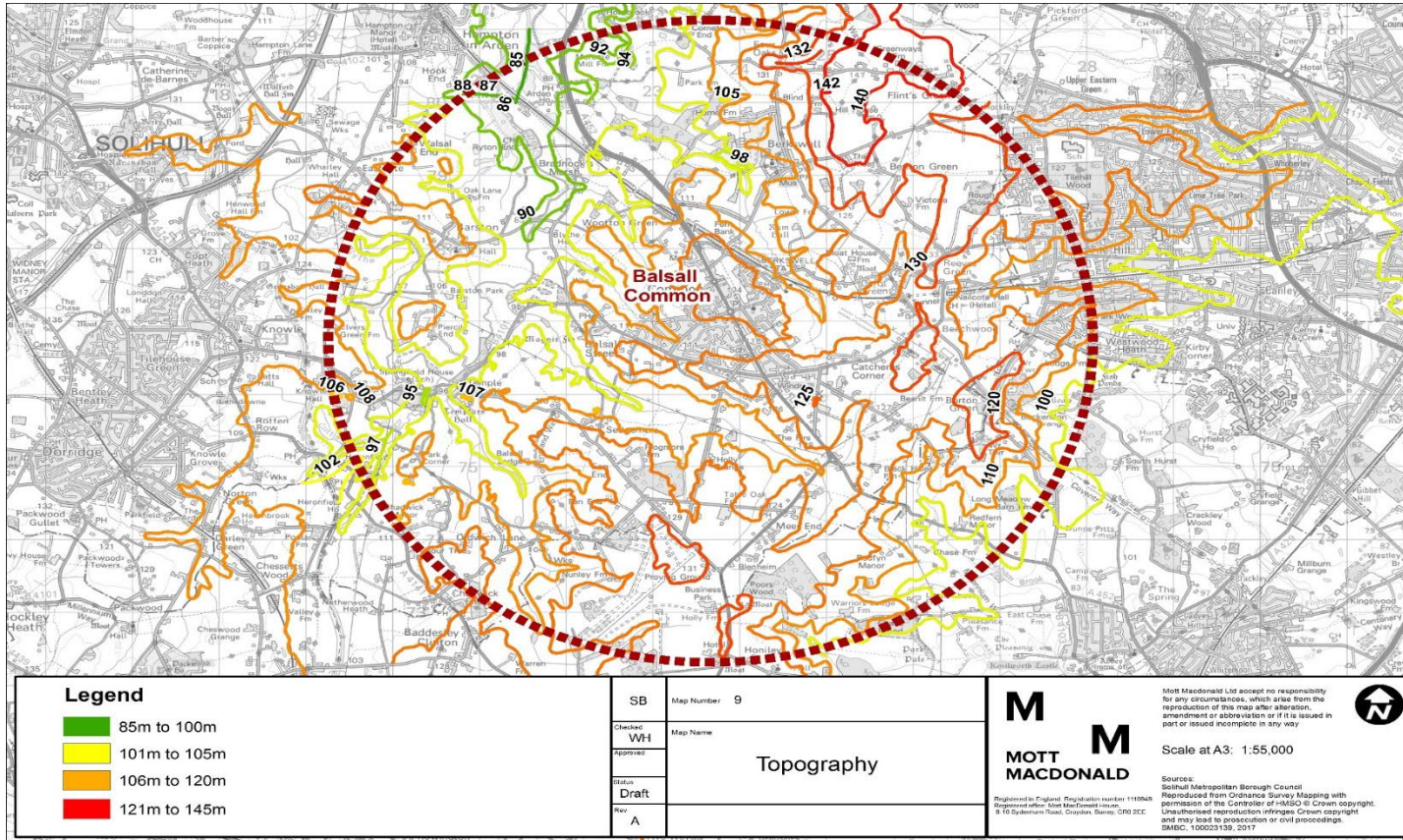
Source: Mott MacDonald

Figure A.8: SSSI and Priority Habitats



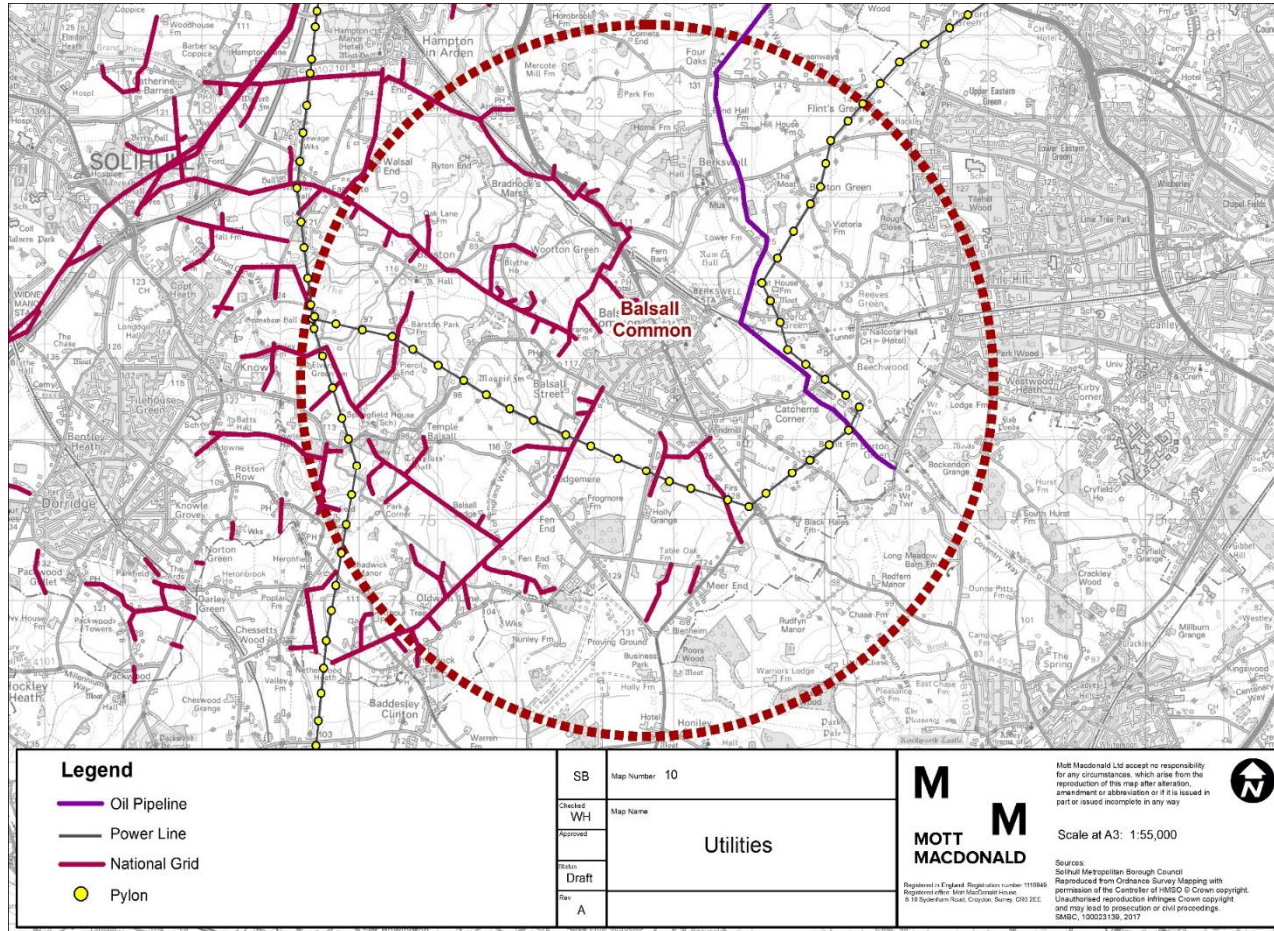
Source: Mott MacDonald

Figure A.9: Topography



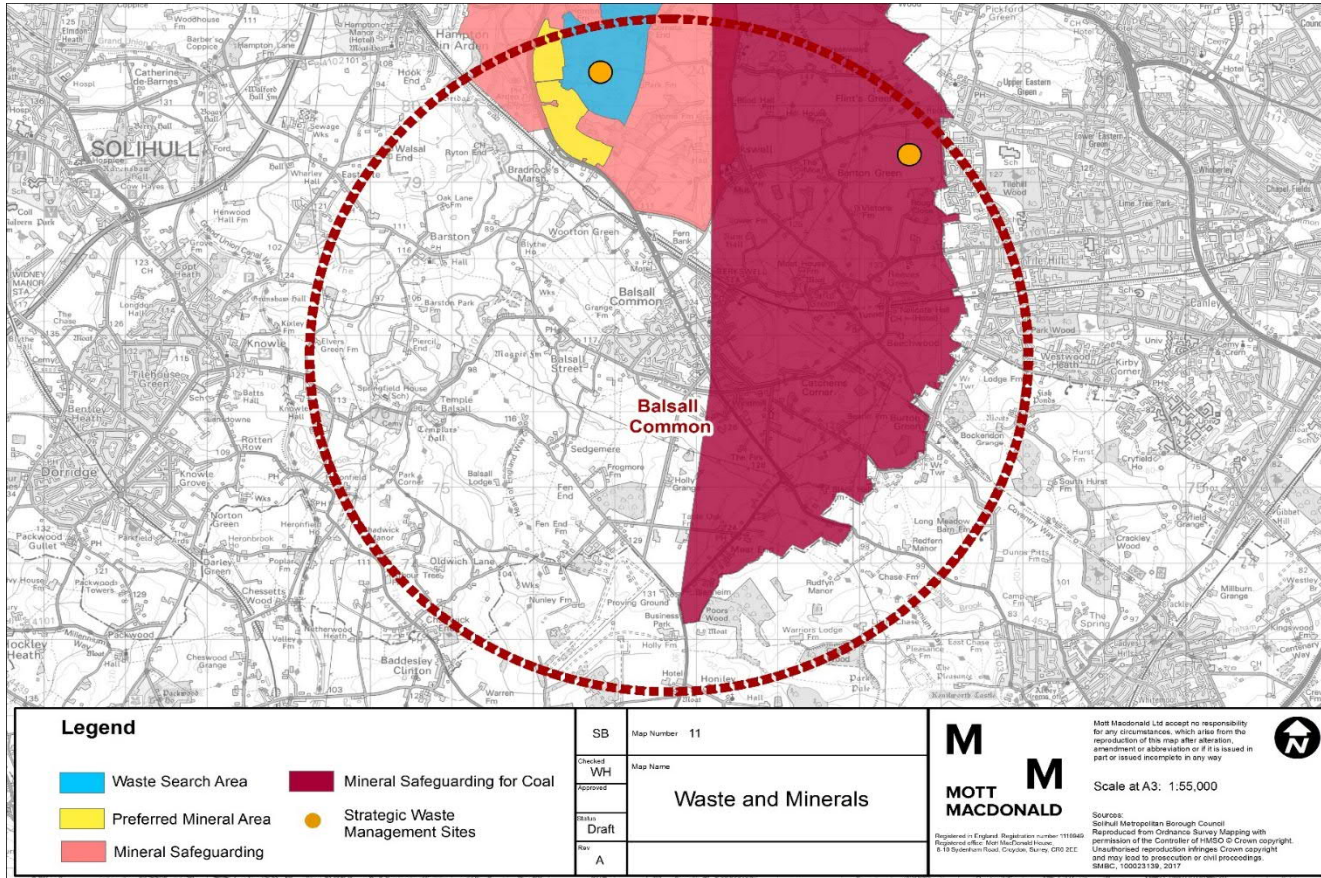
Source: Mott MacDonald

Figure A.10: Utilities



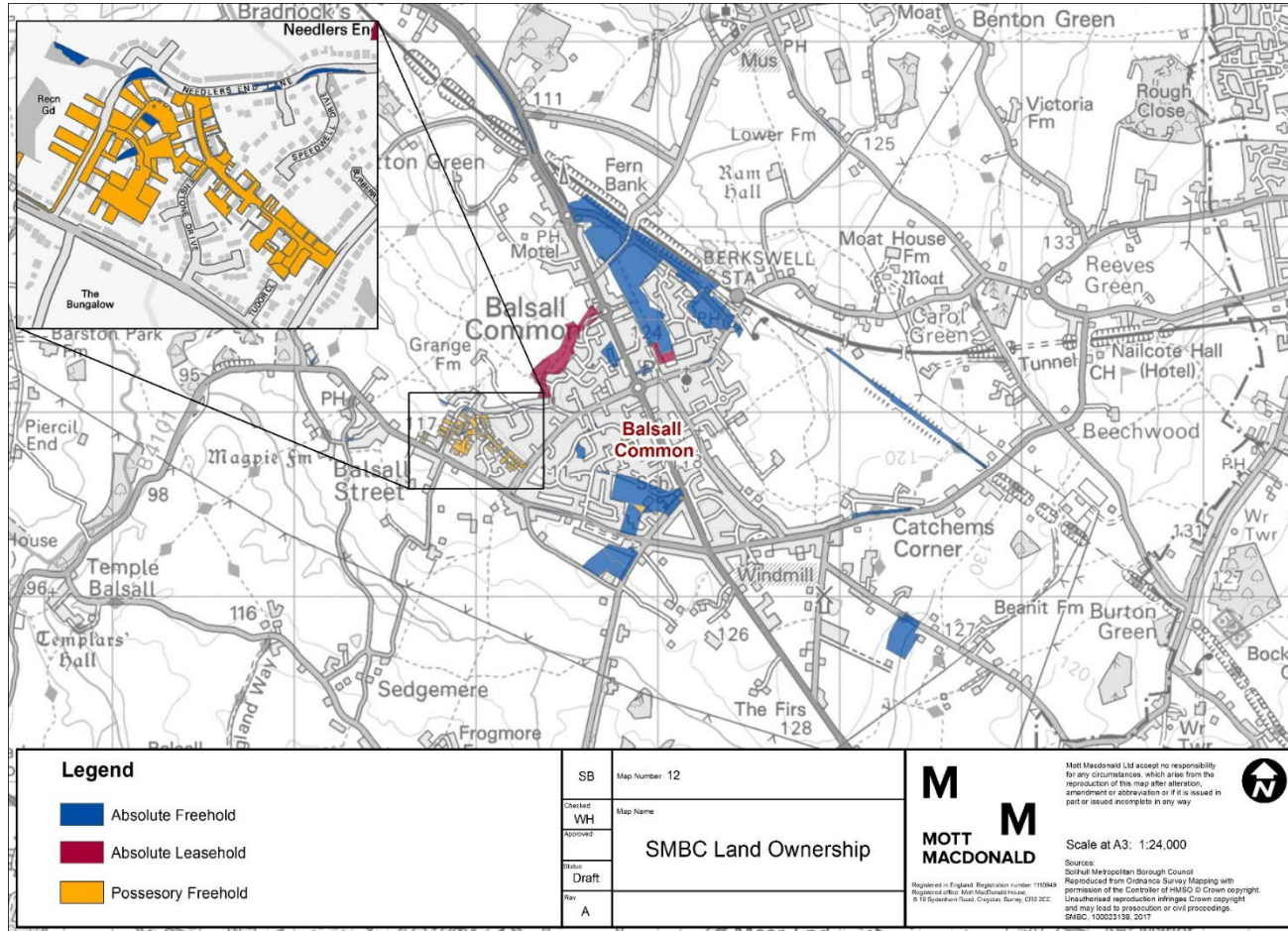
Source: Mott MacDonald

Figure A.11: Waste and Minerals



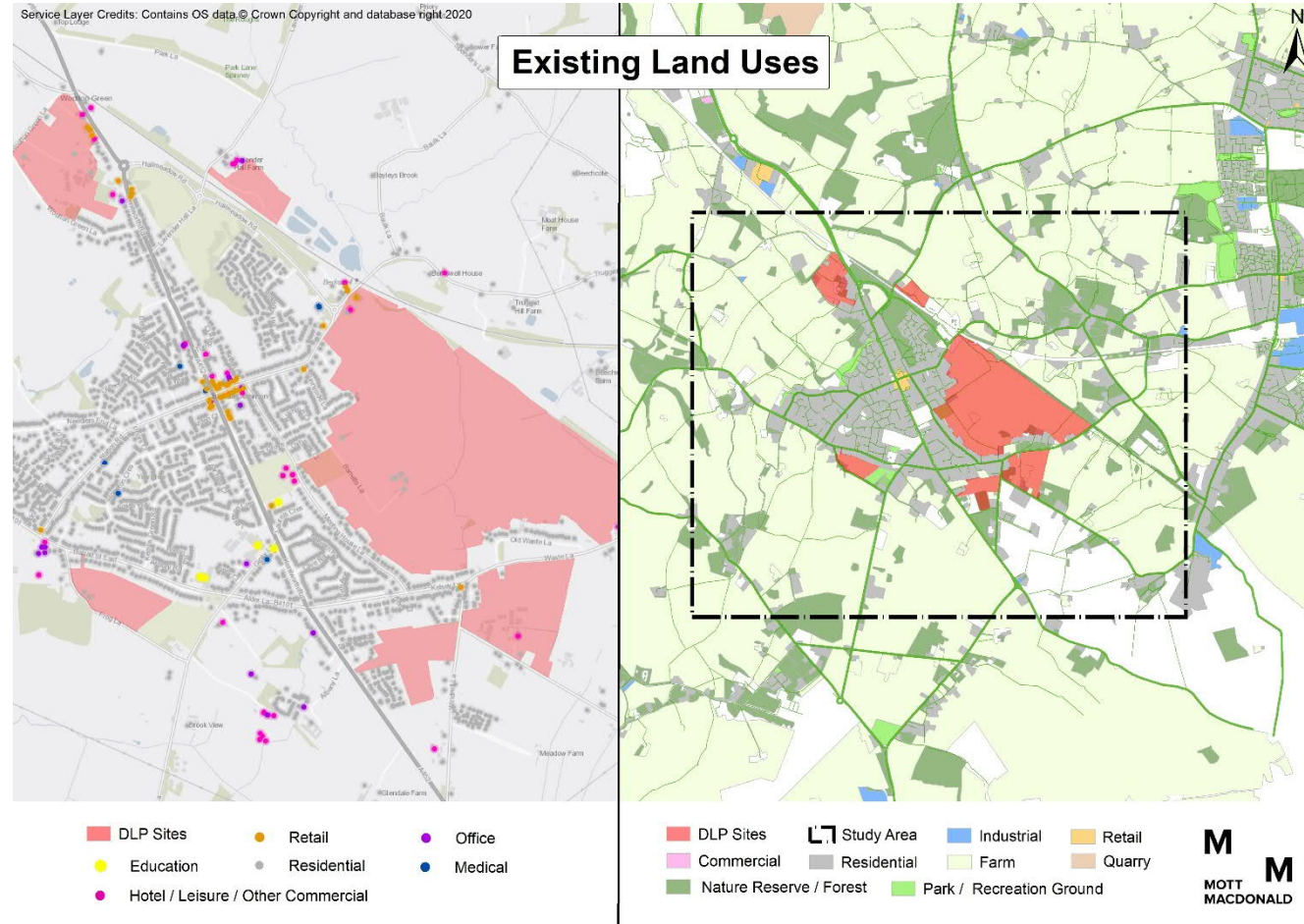
Source: Mott MacDonald

Figure A.12: SMBC Land Ownership



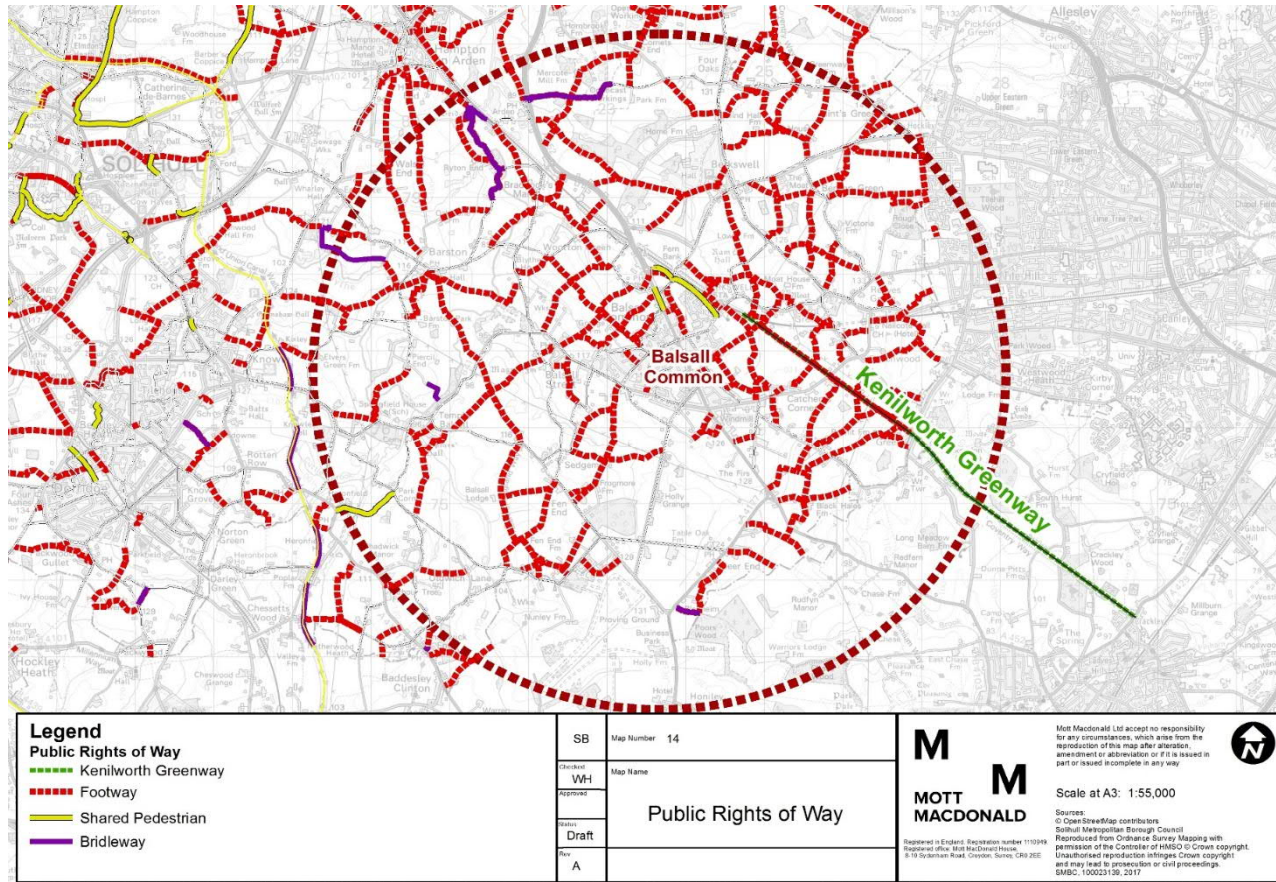
Source: Mott MacDonald

Figure A.13: Existing Land Uses



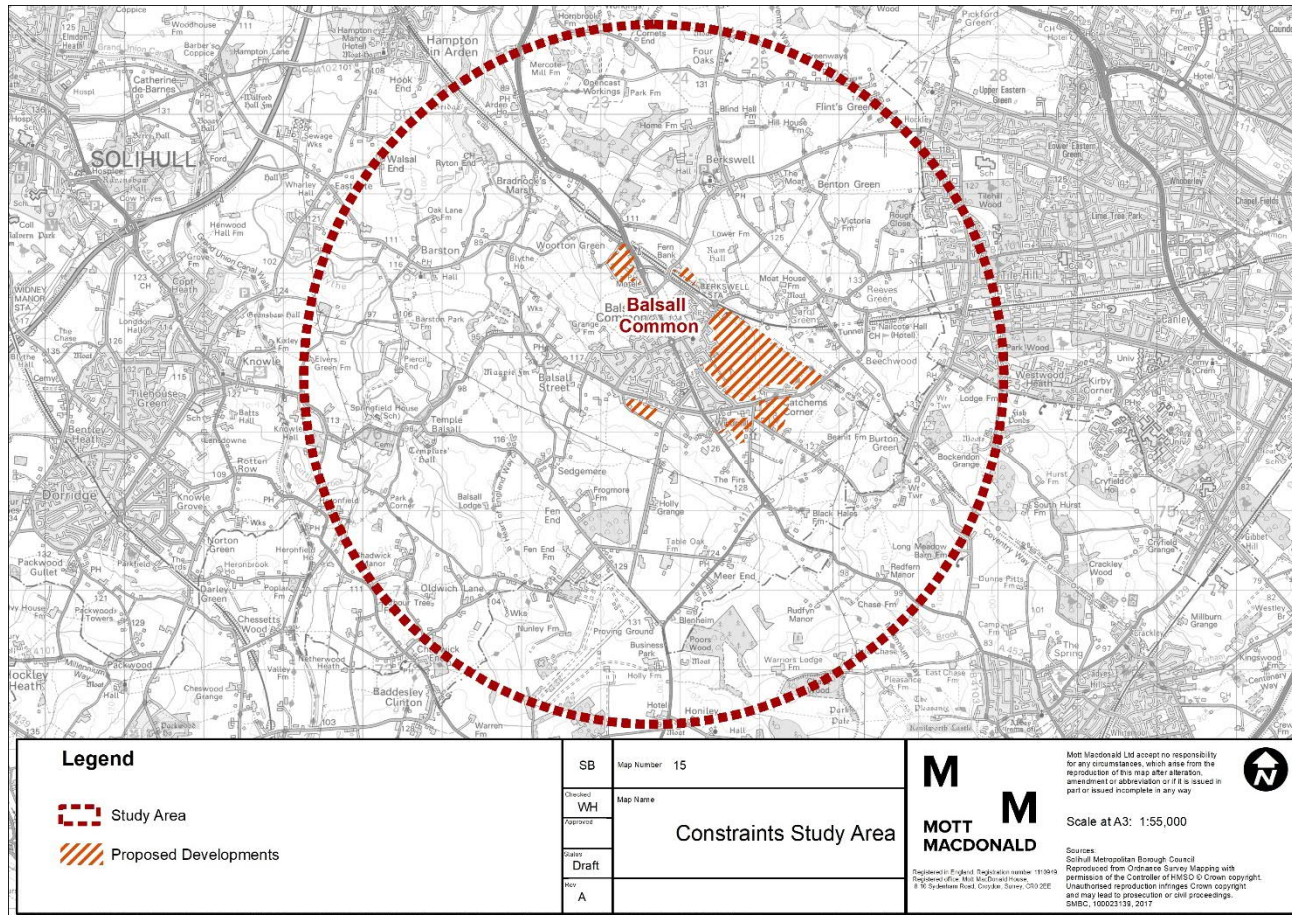
Source: Mott MacDonald

Figure A.14: Public Rights of Way



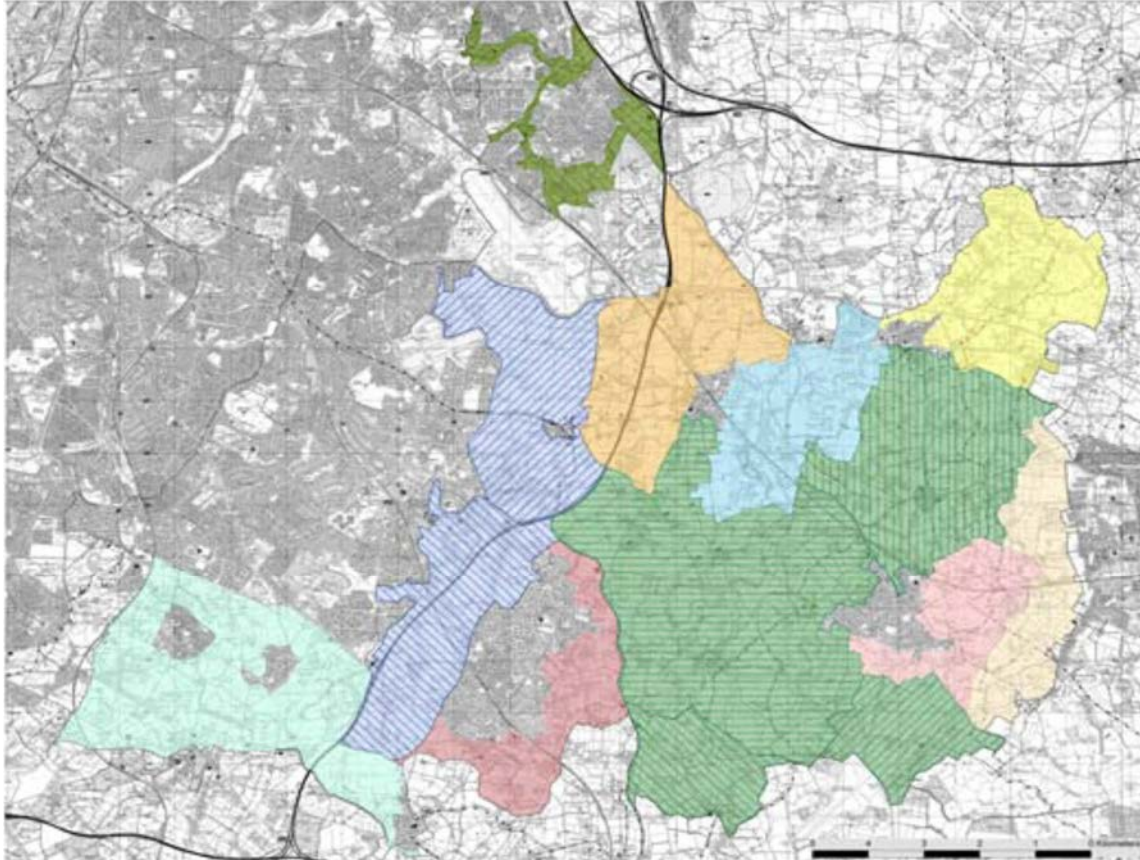
Source: Mott MacDonald

Figure A.15: Constraints Study Area



Source: Mott MacDonald

Figure A.16: Waterman PLC Landscape Character Assessment Map



Source: Solihull Borough Landscape Character Assessment for SMBC, Waterman PLC, 2016

