Homes England

The Housing and Regeneration Agency

West of Ifield, Crawley
Transport Assessment

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Version 1 - Planning submission

July 2025

Transport Assessment
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Land West of Ifield

Homes England
23747305

steer

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1 Introduction

Introduction

1.1 This Transport Assessment (TA) has been prepared by Steer on behalf of Homes England (the Applicant) to support a hybrid planning application (HPA) for the Proposed Development at West of Ifield (WoI), Crawley (the Site) which seeks full planning permission for the Site accesses and enabling infrastructure.

1.2 Horsham District Council (HDC) are the Local Planning Authority, although the Site also bounds the western edge of Crawley Borough Council (CBC). West Sussex County Council (WSCC) are the Local Highway Authority for both HDC and CBC.

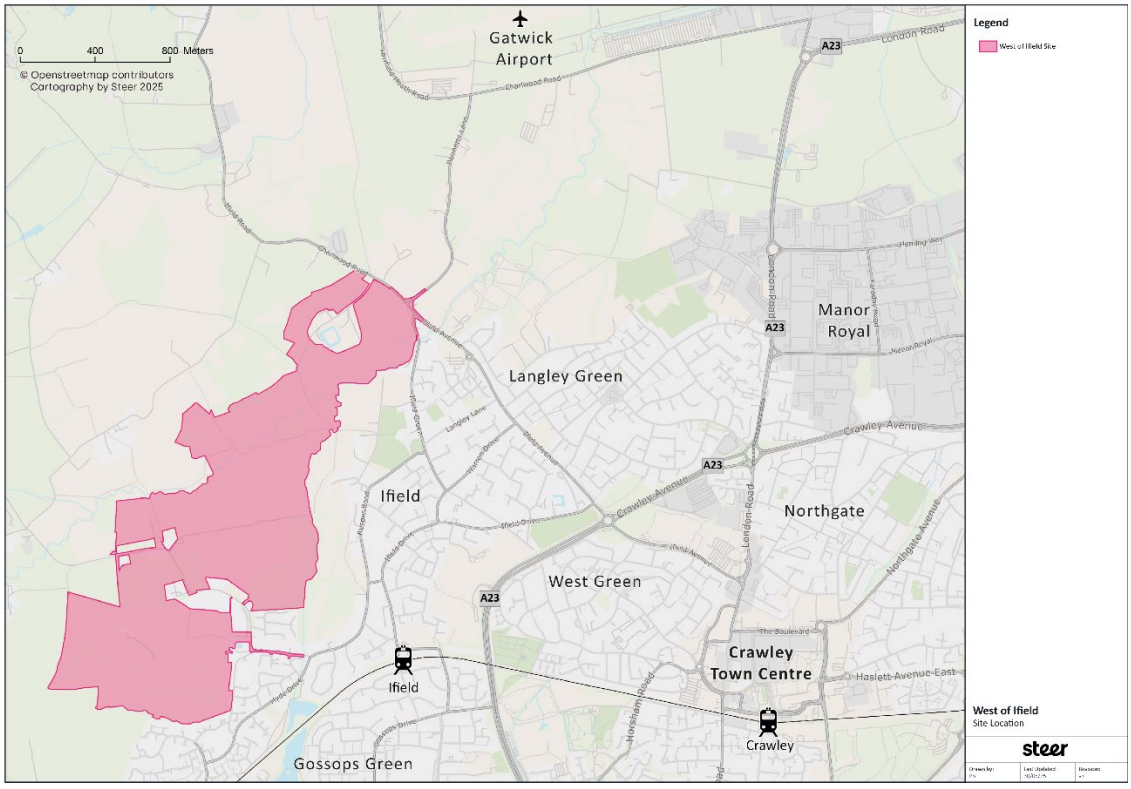
Site Description

1.3 The Site is roughly bound by Charlwood Road and Ifield Green to the east and River Mole, agricultural land and residential properties to the north/west (south of Ifield Wood) and south (south of Rusper Road). The existing Site mostly consists of agricultural land and a Golf Course.

1.4 The A23 is to the south-east of the Site and provides connections to the M23 at junction 10 to the east via A2011, and M23 junction 11 to the south at Pease Pottage.

1.5 A Site location plan is provided in **Figure 1.1**.

Figure 1.1: Site Location Plan



Development Proposals

1.6 The Proposed Development seeks permission for:

"Hybrid planning application (part outline and part full planning application) for a phased, mixed use development comprising:

A full element covering enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school Site and future development, including access to Rusper Road, supported by associated infrastructure, utilities and works, alongside;

An outline element (with all matters reserved) including up to 3,000 residential homes (Class C2 and C3), commercial, business and service (Class E), general industrial (Class B2), storage or distribution (Class B8), hotel (Class C1), community and educational facilities (Use Class F1 and F2), gypsy and traveller pitches (sui generis), public open space with sport pitches, recreation, play and ancillary facilities, landscaping, water abstraction boreholes and associated infrastructure, utilities and works, including pedestrian and cycle routes and enabling demolition.

This hybrid planning application is accompanied by an Environmental Statement.

This hybrid planning application is for a phased development intended to be capable of coming forward in distinct and separable phases and/or plots in a severable way."

1.7 The proposed upper limits of floor areas of the development is shown in **Table 1.1**.

Table 1.1: Proposed Development (maximums)

Land Use	Land Use Class	Schedule	Floor Area / Units
Residential	C3	Dwellings	3,015 units (including 15 gypsy and travellers pitches)
Secondary School	F1	Forms of Entry	6-8 form entry
Primary School	F1	Forms of Entry	3 form entry
Office	E(g)	Floorspace (sqm)	28,930 sqm
Food Store Retail	E(a)	Floorspace (sqm)	5,200 sqm
Healthcare	E(e)	Floorspace (sqm)	1,500 sqm
Leisure	E(d)	Floorspace (sqm)	3,400 sqm
Community Centre	F2	Floorspace (sqm)	1,200 sqm
Creche	E(f)	Floorspace (sqm)	1,100 sqm
Hotel	C1	Bedrooms	80 beds

Pre-Application Consultation

1.8 A number of pre-application discussions and document reviews have been undertaken since Spring 2020, these are listed below.

- West of Ifield Mobility Strategy (4 March 2020)
- Transport & Highways Pre-App (2 June 2020)

- Meeting with Highways England / National Highways – presented scheme and Strategic Modelling Note (10 June 2020)
- Transport & Highways Pre-App (9 September 2020)
- Rusper Road and Link Road (December 2020)
- General Masterplan Pre-App (28 January 2021)
- Bus strategy – WSCC, HDC, CBC (5 July 2021)
- West of Ifield Transport Strategy, issued December 2021 (see **Appendix A**)
- Trip Generation and Scenario Planning Scoping Note, issued 7 December 2021 (see **Appendix B**)
- Pre-app themed workshops (2 February 2022)
- Transport Pre-app 23 September 2022, addressing comments on Transport Strategy, travel plan measures, strategic modelling, CWMMC design & Charlwood Road junction, local junction modelling
- West of Ifield Members Briefing, 3 October 2022 – scheme overview
- Highways Mitigation Meeting was held on 28 April 2023 with traffic modelling, proposed highways and off-Site cycle mitigation discussed.
- Active Travel England – Pre Application discussion – August 2024; and
- Horsham District Council – Pre-Application Meeting – March 2025.

1.9 As part of the Phase 1 works element of the planning application, meetings have been held with WSCC regarding the Crawley Western Multi-Modal Corridor (CWWMC) and junction design.

Associated Documents

1.10 This TA is supported by a number of other documents as follows, which have been produced alongside this report:

- Umbrella Residential and Workplace Travel Plan; and
- Environmental Statement.

1.11 The TA is also supported by highways plans produced for the Phase 1 detailed element of the planning application.

Report Structure

1.12 This report is divided into nine chapters, of which this chapter forms the Introduction. The structure of the remaining chapters is as follows:

- **Chapter 2:** Baseline Transport Conditions;
- **Chapter 3:** Transport Policy and Guidance;
- **Chapter 4:** Proposed Development;
- **Chapter 5:** Car Parking;
- **Chapter 6:** Public Transport Strategy;
- **Chapter 7:** Travel Planning and Management;
- **Chapter 8:** Trip Generation;
- **Chapter 9:** Traffic and Highway Assessment;
- **Chapter 10:** Walking & Cycling Assessment;
- **Chapter 11:** Public Transport Impacts;
- **Chapter 12:** Off-Site Mitigation;
- **Chapter 13:** Construction Traffic; and
- **Chapter 14:** Summary and Conclusions.

2 Baseline Transport Conditions

Introduction

2.1 The Proposed Development will provide a comprehensive selection of local amenities on Site for resident's day to day use. However in addition to this, the following section of the report reviews the existing Site, local highway network, and the location of the Site in relation to local facilities such as employment areas, schools, entertainment, recreational uses and transport links. This section also includes details of the local traffic conditions, travel to work characteristics of existing residents within the relevant local Middle Layer Super Output Areas (MSOAs), personal injury road traffic accident data, and committed developments.

2.2 A Site location map is provided in **Figure 1.1**.

Existing Vehicular Access

2.3 There is an existing vehicular access point to the Site from Rusper Road. In the vicinity of the Site access, Rusper Road is a country lane with a 30mph speed limit increasing to 40mph north of Ifield Golf Club. To the north of the Site, going away from the built environment, the speed limit increases to 60mph. There is currently no access from Charlwood Road to the Site.

Local Highway Network

2.4 The Site is well connected to the highway network via Rusper Road, with easy access by road to London and Brighton, and to the strategic road network via the M23 junction 10 and 11. Charlwood Road to the north of the Site and Rusper Road which traverses the Site are both single-lane carriageways.

Charlwood Road

2.5 Charlwood Road is a two-way single carriageway, with a speed limit of 40mph. The road forms the eastern boundary to the Site. There are no footways provided to the north of the single-track access road to Trivelles Gatwick Hotel, Ifield Court Farm and residential cottages. A footway is provided on the western side of the carriageway to the south of the proposed access road, accompanied by street lighting.

2.6 To the south of the junction with Ifield Green, the road becomes Ifield Avenue and the footway is on the eastern side.

Ifield Avenue

2.7 Ifield Avenue is a two-way single carriageway with central hatching, providing intermittent pedestrian refuge at informal crossings. It is subject to a speed limit of 30mph. There is a footway on the eastern side of the carriageway along the road (north of the roundabout with Rokewood Drive), with an additional footway on the western side at intervals. An off-street cycle lane also runs along the eastern side between the junction with Popes Mead and the A23 Crawley Avenue. There is street lighting along the whole road.

2.8 Ifield Avenue provides direct access to A23 Crawley Avenue via Ifield Roundabout, a large roundabout with grade separated pedestrian and cycle access via long ramps above the roundabout.

Ifield Wood

2.9 Ifield Wood is a narrow two-way road, with a 40mph speed limit. There are no footways or street lighting provided along this road. It is primarily providing access to residential properties. Ifield Wood provides an east-west link between Charlwood Road and Rusper Road.

Rusper Road

2.10 Rusper Road is a two-way single carriageway with a speed limit of 30mph within Ifield, increasing to 40mph north of the junction with Ifield Golf Club and rising to 60mph shortly afterwards. To the east of the Site, north of Drughorn Way there are no footways or street lighting, south of the residential development, there are footways on both sides of the carriageway and the presence of streetlights. Footways continue on both sides of the carriageway until Trist Way, 130m west of the junction with Ifield Green.

2.11 Rusper Road provides access to residential properties, Ifield Golf Club, and other local amenities in Ifield.

Ifield Green

2.12 Ifield Green is a two-way single carriageway with a speed limit of 30mph. There are footways on both sides of the carriageway with street lighting along Ifield Green (heading northbound) from the T-junction with Ifield Green until the turning to Rectory Lane, then there are only footways on the eastern side of the carriageway until Ifield Road meets Ifield Avenue.

2.13 Ifield Green provides access to residential properties and other local amenities, such as the Royal Oak Public House, village store and GP surgery.

Bonnetts Lane

2.14 Bonnetts Lane is a two-way single carriageway with a speed limit of 60mph. There are no footways and no street lighting along this road. Bonnetts Lane provides access to the Gatwick Airport perimeter roads.

The A23, Crawley Avenue

2.15 The A23, Crawley Avenue, is a two-way dual carriageway with a speed limit of 60mph. There is a grass central reservation separating the traffic flows. The A23 and subsequently A2011 provides access to M23 to the east of the Site and the A23 also provides access to M23 at junction 11 (Pease Pottage) to the southeast of the Site. The A23 also continues south to Brighton.

M23

2.16 The M23 is located to the east of the Site. Access to the M23 is taken from junction 10 located east of the Site, via The A2011, or from junction 11 located north of the Site, via Crawley Avenue. The M23 routes north to London.

Pedestrian and Cycle Network

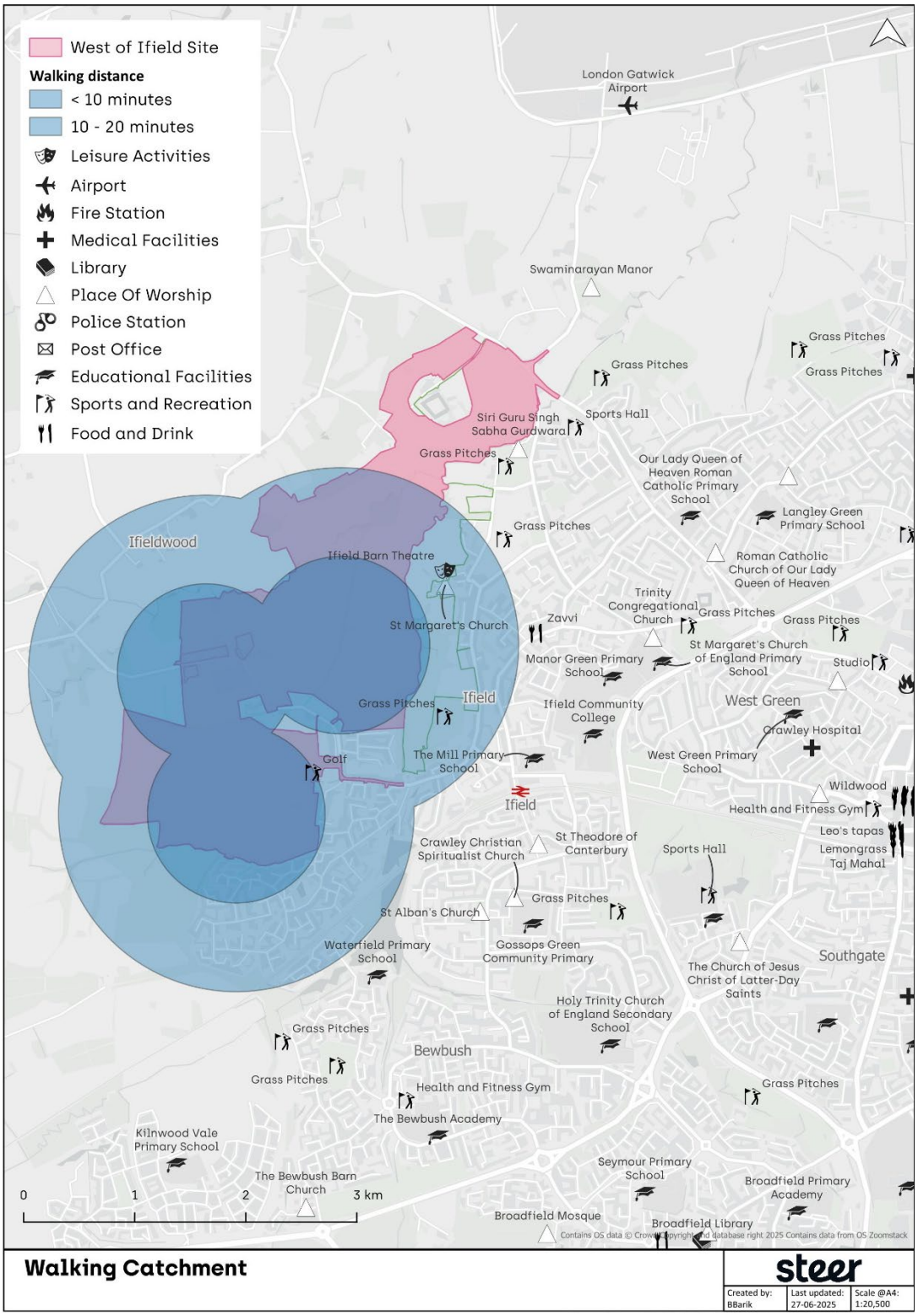
Existing Local Walking and Cycling Network

2.17 In proximity to the Site, there is an extensive network of footways adjacent to the local road network, as detailed above. Footway widths and surface quality vary, but footways are generally wide enough to accommodate for all users. A full audit of local routes between the Site and key destinations is included within the Active Travel England assessment, later in this report.

2.18 There are also a number of Public Rights of Way (PRoW) (footpaths and bridleways) within or surrounding the Proposed Development linking neighbouring communities in Ifield to the countryside to the west.

2.19 A 20-minute walking catchment plan is presented **Figure 2.1**.

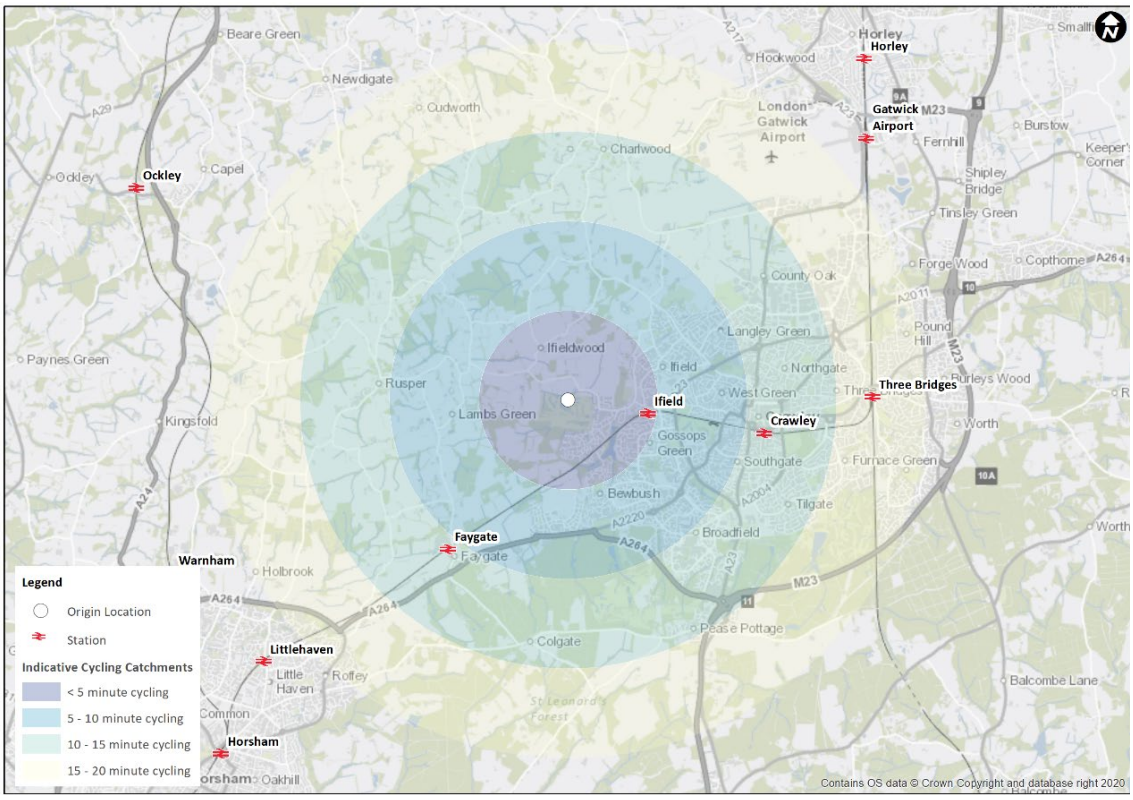
Figure 2.1: Walking Catchment Plan



2.20 There are no dedicated cycle lanes on the surrounding road network, however the strategic cycle network within the Site's immediate vicinity is good. National Cycle Route (NCN) 228, 20 and 21 are in the near vicinity of the Site, and NCN route 223 is south-west of the Site in Horsham. These routes connect to the wider NCN.

2.21 A 30-minute cycle catchment plan is shown below at **Figure 2.2**.

Figure 2.2: Cycle Catchment Plan



Proposed Local Walking and Cycling Improvements

2.22 As part of the Crawley Transport Strategy, supporting the Local Transport Plan, additional sustainable measures in the area are required to mitigate the impact of local plan growth. The Crawley Local Walking and Cycling Improvement Plan (LCWIP) is a key part of this. Crawley Borough Council published its LCWIP in March 2021. Topography in Crawley is predominately flat with a large range of amenities, and the neighbourhood approach developed during its inception lends itself to walking and cycling. The LWCIP provides a cycle network plan, walking zone and route plan as well as, a programme of infrastructure improvements and an implementation plan. Route L, M and P are close to the Site and a combination of these would help to provide safe access to local amenities and employment. This is discussed later in this report.

Public Transport

Bus

2.23 Crawley has an extensive bus service network, including the Fastway services, which run in part on guided busways and dedicated bus lanes and are operated by Metrobus. There are three bus corridors within the vicinity of the Site. The nearest bus stops are located on Ifield Green, Ifield Drive and Hyde Drive. The bus routes serving these stops include the 2, 21 and 200. These bus stops are located within approximately 1.4km from the Site. A summary of the frequency of the local bus services is set out in **Table 2.1**.

Table 2.1: Existing Bus Services

Bus Stop	Service	Destination	Peak Hour Frequency
Hyde Drive	2	Tilgate – Ifield West	5
Ifield Green	21	Epsom / Leatherhead – Crawley	1
Ifield Drive	200	Gatwick Airport – Horsham	1

2.24 Given the nature of the Site, it is not uncommon for there to be limited transport routes serving it. However there are some local services within a usable distance which can be enhanced or expanded upon.

2.25 Services generally call at Crawley Bus Station and Gatwick Airport which provide a range of onward travel options including Banstead, Bletchingley, Brighton, East Surrey Hospital, Godstone, Reigate, Redhill and Heathrow and Stansted Airports and onwards rail connections.

2.26 Two additional school coach services (639 and 692) also runs once per day in either direction. The service 639 serves Millais School, The Forest School and The College of Richard Collyer. The service 692 serves St Wilfrids School.

National Rail

2.27 Ifield Rail Station is approximately 1.2km from the Site. Ifield Rail Station currently has a regular service at all times of day. During the morning peak, two trains per hour are provided towards London, Crawley, Three Bridges and Gatwick Airport, with five trains per hour towards Horsham. During the evening peak, five trains run from London to Ifield and two trains per hour run from Horsham to Ifield. During off-peak periods, two trains per hour typically serve Ifield in each direction. Services also run through London and onwards to Stevenage and Peterborough.

2.28 Details of these services are shown in **Table 2.2**.

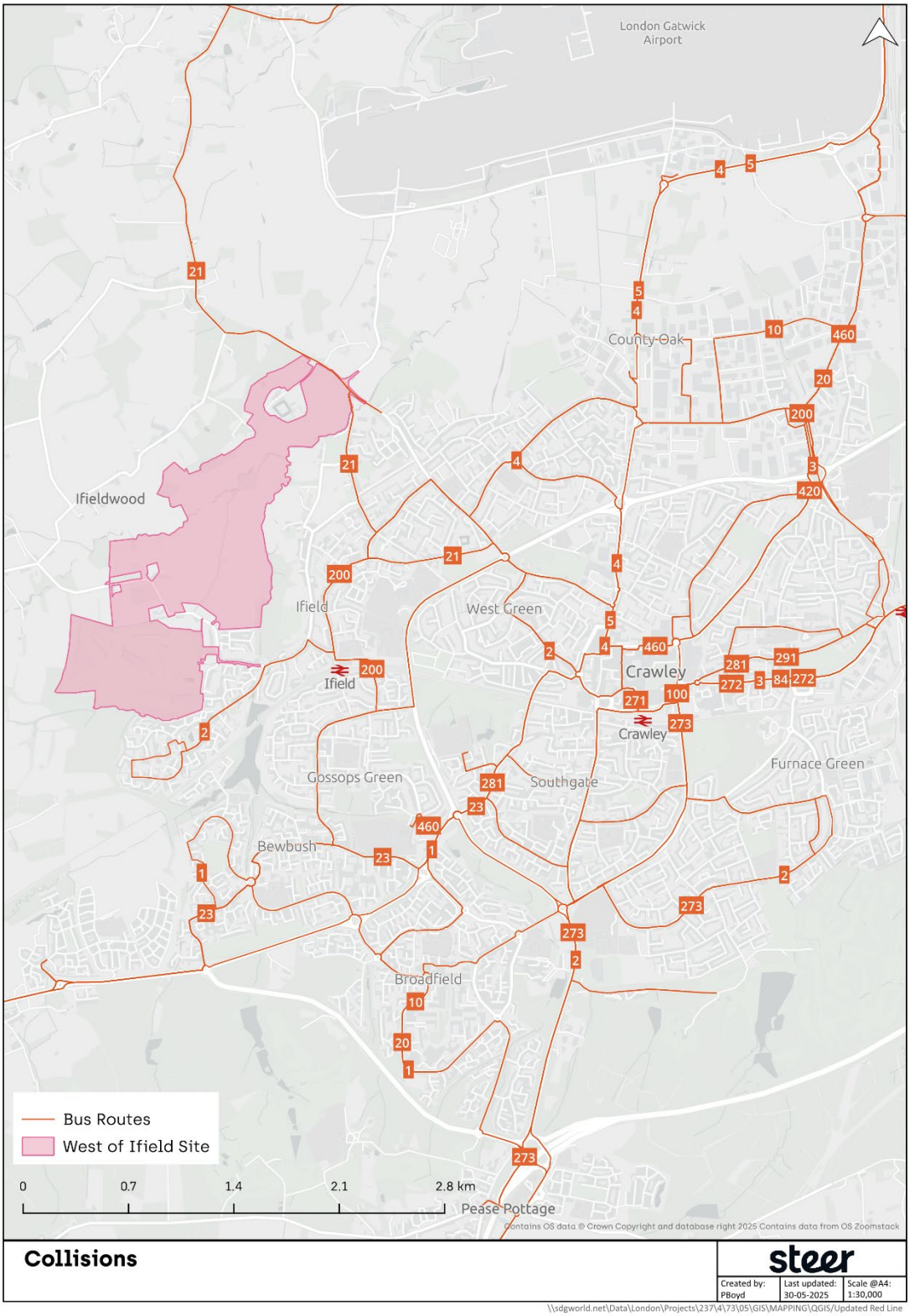
Table 2.2: Existing Rail Services

Destination	Journey Time (Minutes)	Frequency
Crawley	3	2
Three Bridges	7	2
Gatwick Airport	12	2
London Victoria	54	2
London Blackfriars	60	2

2.29 Gatwick Rail Station is located approximately 9km from the Site and provides additional services to those from Ifield, with connections to London Victoria, Cambridge, Horsham, Southampton Central and Bognor Regis, and Brighton. The airport station is accessible by bus route number 200 from Ifield.

2.30 A plan of the local public transport network including local bus and national rail services is shown in **Figure 2.3**.

Figure 2.3: Local Bus and National Rail Services



Local Facilities

2.31 The NPPF (2025) paragraph 115 and 117 seeks to locate new developments in areas where there is a choice of transport modes available to access local facilities, particularly where people can travel by sustainable modes.

2.32 Manual for Streets (MfS, 2007) (Paragraph 4.4.1) states the following:

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2km. MfS encourages a reduction in the need to travel by car through the creation of mix-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance for most residents."

2.33 Furthermore, Local Transport Note 1/04a (Department for Transport 2004), considers acceptable walking and cycling distances at Paragraph 3.10.3, stating:

"There are limits to the distances generally considered acceptable for utility walking and cycling. The mean average length for walking journeys is approximately 1km (0.6 miles) and for cycling, it is 4km (2.4 miles) although journeys of up to three times distances are not uncommon for regular commuters. The distances people are prepared to walk, or cycle depend on their fitness and physical ability, journey purpose, settlement size, and walking/cycling conditions. Useful guidance on desirable, acceptable and preferred maximum walking distances for different purposes is included in Tables 3.2 and 3.3 of Providing Journeys on Foot, IHT 2000."

2.34 The DfT's Cycling and Walking Investment Strategy (2017) states at Paragraph 1.16 that:

"…there is significant potential for change in travel behaviour. Two out of every three personal trips are within five miles – an achievable distance to cycle for most people, with many shorter journeys also suitable for walking. For school children, the opportunities are ever greater. Three quarters of children live within a 15-minute cycle ride of secondary school while more than 90% live within a 5-minute walk or bus journey from a primary school."

2.35 The DfT's Gear Change A Bold Vision for Cycling and Walking (2020) states (page 11) that:

"In particular, there are many shorter journeys that could be shifted from cars, to walking, or cycling. We want to see a future where half of all journeys in towns and cities are cycled or walked. 58% of car journeys in 2018 were under 5 miles. And in urban areas, more than 40% of journeys were under 2 miles in 2017-1817. For many people, these journeys are perfectly suited to cycling and walking."

2.36 To enable an assessment of the viability between the Site and key destinations in the local area, it is appropriate to establish the maximum distance that people are generally prepared to walk and the destinations that exist within these distances. Against this background, it is evident that walking offers a great potential to replace short car trips, with a 1.6km (circa 1mile) distance being a reasonable walking distance for most people and many journey purposes although some people may walk further, i.e. up to 2km as referred to in Manual for Streets); and 8km (circa 5 miles) is a reasonable cycle distance for most people and many journey purposes, although some people, do cycle in excess of 8km on a regular basis. The use of e-bikes increases the range that cyclists will travel as well as reducing the effects of any gradients on routes and journey times.

2.37 **Table 2.3** identifies that walking and cycle distance and time to some local facilities and amenities measured from the approximate centroid of the Site via the proposed vehicular access. This table does not provide an exhaustive list, nor suggests that everyone can walk or cycle to these facilities, but rather provides an illustration that there are a good number of local facilities and amenities within the walking and / or cycling capabilities of many people.

2.38 It should be noted that within the Site, Primary and Secondary schools are proposed, along with leisure centre, healthcare centre, community centre, supermarket and other retail units. It is therefore anticipated that resident and employee daily needs are catered for within the Site itself. However, we acknowledge there may be need to access other services, including for employment and therefore nearby local services are listed in **Table 2.3**.

2.39 A plan showing the existing local facilities in relation to the Site is included at **Figure 2.4.**

Figure 2.4: Local Amenities

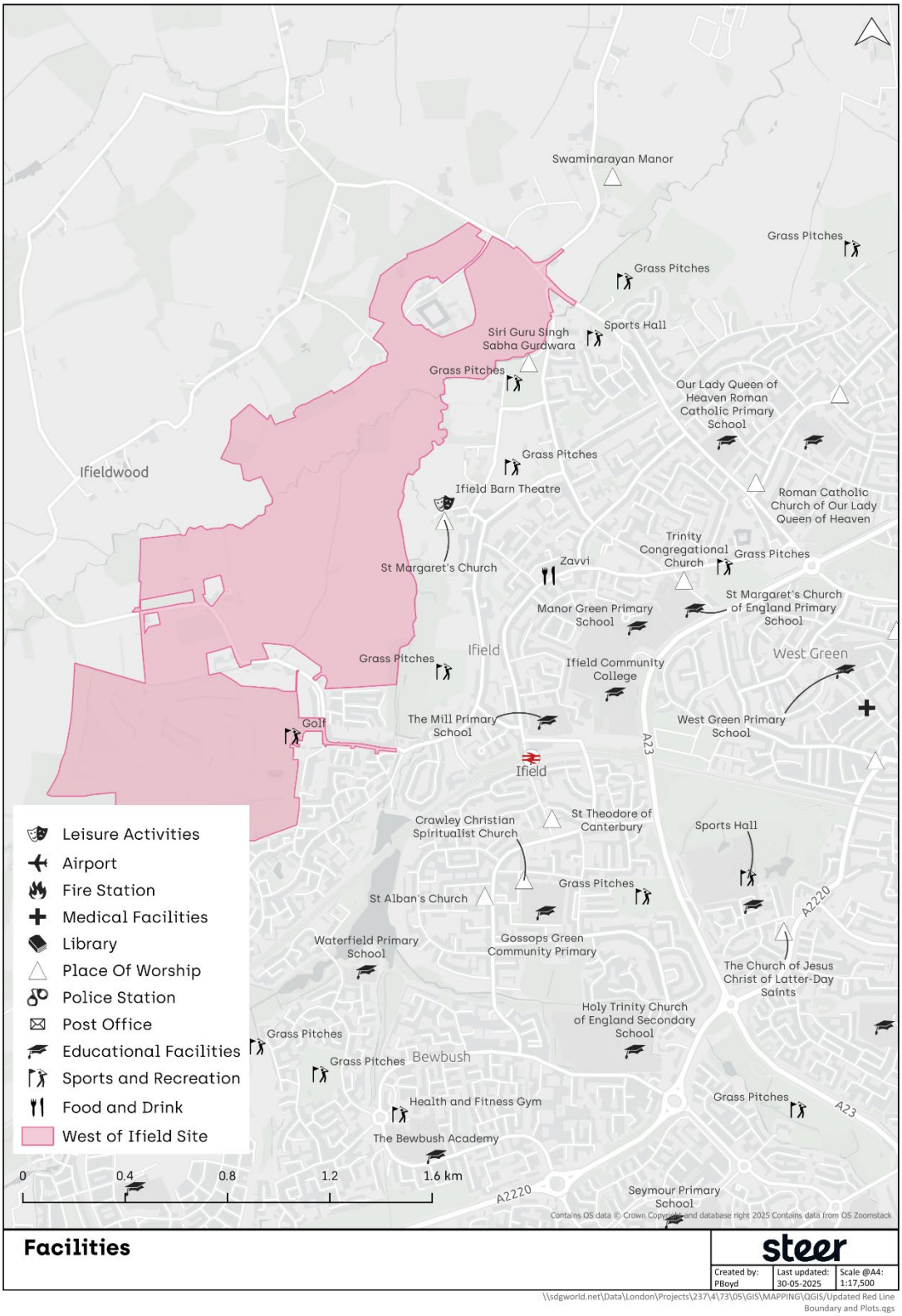


Table 2.3: Local Amenities

Facility	Distance from the Rusper Road pedestrian, cycle and bus only Site access (km)	Approximate Journey Time (minutes)	
		Walking (minutes)	Cycling (minutes)
Educational Facilities			
Manor Green Primary School	1.8	21.3	7.1
Ifield Community College	1.8	21.8	7.3
The Mill Primary Academy	1.1	12.9	4.3
Our Lord Queen of Heaven Catholic Primary School	2.6	31.7	10.6
Places of Worship			
St Margaret's Church	1.6	19.9	6.4
Gurjar Hindu Union Mandir GHU	2.9	35.3	11.8
Hindu Temple/ Apple Tree Centre	2.6	30.9	10.3
Our Lady Queen of Heaven RC Church	2.6	30.9	10.3
Noor Mosque (AMA UK)	3.5	41.5	13.8
Crawley Gurdwara Ifield Green	2.4	28.9	9.6
Healthcare Facilities			
Ifield Medical Practice	1.5	17.7	5.9
Ali Dr B	1.8	22.0	7.3
Adult Mental Health Services	1.3	15.8	5.3
Crawley Hospital	3.4	41.4	13.8
Deerswood Lodge-Shaw Healthcare	1.8	21.8	7.3
Total Orthodontics Crawley	2.9	34.2	11.4
Clinton W O (Dentist)	2.2	26.9	9.0
Recreational Facilities			
Crawley Rugby Football Club	2.8	33.5	11.2
Popes Mead Bowling Club	2.8	33.2	11.1
Ewhurst Playing Fields	1.8	21.8	7.3
Food and Drink			
The Plough PH	1.5	18.2	6.1
Zari Restaurant	1.4	16.5	5.5
Royal Oak PH	2.0	24.3	8.1
Dosa Club	3.1	36.7	12.2
Kitchen Royale Crawley	2.1	25.6	8.5
Leisure Activities			
Ifield Barn Theatre	1.6	19.4	6.5

2.40 **Table 2.3** demonstrates that in addition to those to be provided within the Site, a range of key facilities located nearby it are accessible by foot or cycle. Furthermore, it demonstrates that the Site is reasonably well placed to access existing amenities.

Active Travel England Assessment

2.41 A full Active Travel England (ATE) audit has been completed and is included in the form of a Technical Note in **Appendix C**.

Existing Traffic Flows

2.42 The existing traffic flows used in the report are those which have been modelled using the WSCC held Crawley Town Model (CTM), developed by Stantec on behalf of CBC to inform the Local Plan. The CTM is a Saturn model and utilises observed data collected over a range of times and dates (in neutral months), i.e. it is based upon local observations. The model has been subject to substantial model validation and the key findings of the model were accepted by the Inspectors, through the Crawley Local Plan Examination in Public. It therefore forms the main method of assessment of traffic flows and impacts.

Travel to Work Characteristics

2.43 A review of the local baseline travel characteristics extracted from the 2011 Census 'Method Travel to Work' has been carried out. The review has considered the travel characteristics from the local MSOA to determine the baseline travel characteristics most applicable to the Site.

2.44 The Site is located within the Crawley 006 MSOA and Horsham 001 MSOA. Method of travel to work data for these MSOAs is summarised in **Table 2.4** below.

Table 2.4: Census Travel to Work Modal Split

Method of Travel to Work	Crawley 006 MSOA	Horsham 001 MSOA	Average
Underground	0%	0%	0%
Train	7%	8%	8%
Bus, minibus, coach	9%	4%	6%
Taxi	1%	0%	0%
Motorcycle	1%	1%	1%
Car Driver	69%	72%	70%
Car Passenger	5%	5%	5%
Bicycle	2%	2%	2%
Foot	6%	8%	7%
Other	0%	1%	0%
Total	**100%**	**100%**	**100%**

2.45 While 2021 census data is available, including the Method Used to Travel to Work (TS061), the data has not been used in this assessment due to the census being undertaken during the COVID-19 lockdown when the majority of the UK workforce was working from home. The census requested information regarding people's current method of travel and did not query people's travel patterns pre-lockdown. While there has been a shift towards greater working from home, and the days on which people travel, the 2011 data is therefore still considered to be the most robust assessment for assessing travel to work patterns.

Personal Injury Accident (PIA) Data

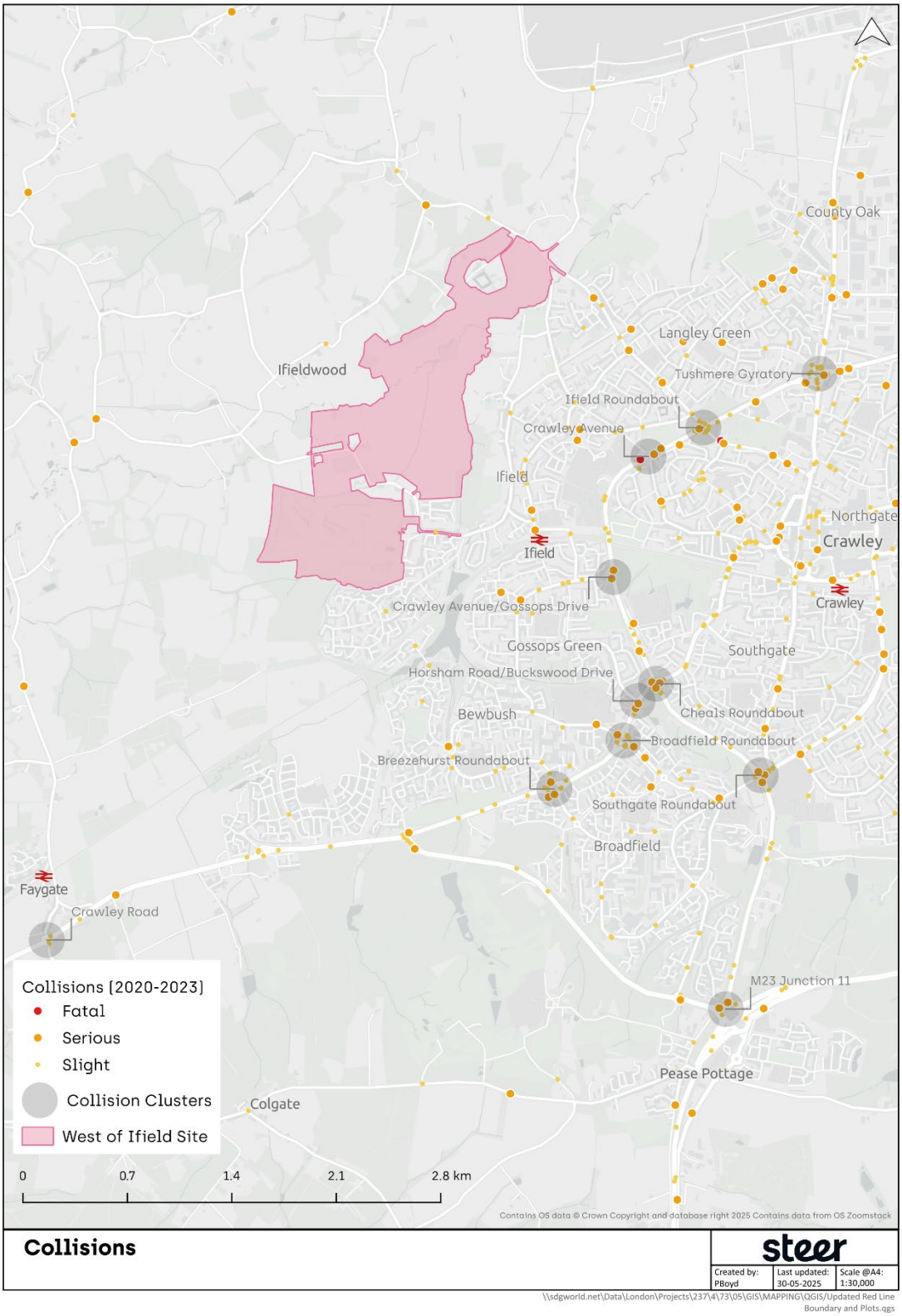
2.46 Road traffic accident Personal Injury Data (PIA) records for the surrounding key routes and junctions have been obtained from Sussex Roads Partnership on behalf of Sussex Police and has been reviewed for the most recent five-year period available from 01 January 2020 to 31 December 2024.

2.47 The data indicated that during the five-year period a total of 262 accidents were recorded within the study area, some of which resulted in more than one injury. Within the 262 accidents, there was a total of 357 injuries, 1 of which was fatal, 56 were serious, and the remaining 300 were slight. However very few are on the local roads surrounding the Site, with the majority being on key roads, such as Crawley Avenue and associated junctions.

2.48 The PIA analysis for each of the key routes/junctions is set out herein.

2.49 A summary of the PIA data is shown in **Figure 2.5** below.

Figure 2.5: Personal Injury Accident Data Extract



2.50 A copy of the PIA study area, plot of accidents and data is included at **Appendix D**.

Tushmore Gyratory

2.51 A cluster of 21 slight accidents and 3 serious accidents occurred at Tushmore Gyratory. Details of the accidents are below:

- One serious accident on 07 June 2022 at 21:02 (daylight) in dry conditions. The incident involved 1 car and occurred because of the driver exceeding the speed limit/ driving carelessly due to distraction in their vehicle.
- One serious accident on 22 June 2022 at 08:10 (daylight) in dry conditions. The incident involved 1 car and 1 van and occurred because of the sun shining and impairing sight of driver.
- One accident on 26 March 2024 at 07:10 (darkness, streetlights present) in wet/damp conditions. The incident involved 1 motorbike and 1 car and occurred when the car moved into the same lane as the motorbike, causing the rider to fall. The car did not stop to exchange details.

M23 Junction 7

2.52 A cluster of 10 slight accidents and 3 serious accidents occurred at M23 Junction 7. Details of the accidents are below:

- One serious accident on 16 June 2023 at 20:35 (darkness, streetlights present) in dry conditions. The incident involved 1 car and 1 stationary vehicle, caused by the car failing to negotiate a roundabout and mounting the verge, colliding with the second vehicle at a separate set of traffic lights. This resulted in 6 casualties from both vehicles.
- One accident on 27 August 2023 at 13:01 (daylight, streetlights present) in dry conditions. The incident involved 1 car and 1 motorcycle, caused by the motorcycle moving contrary to lane markings, leading to a collision with the car. The collision occurred at low speed, and the motorcycle rider fell, resulting in a broken hand and shock.
- One accident on 12 May 2024 at 10:50 (daylight, streetlights present) in dry conditions. The incident involved 3 vehicles, where Vehicle 1 was following Vehicle 3, which allegedly stopped suddenly, causing Vehicle 2 to collide with the rear of Vehicle 1.

Southgate Roundabout

2.53 A cluster of 10 slight accidents and 4 serious accidents occurred at Southgate Roundabout. Details of the accidents are below:

- One serious accident on 30 January 2020 at 11:35 (daylight) in wet conditions. The incident involved 1 car and 1 cyclist and occurred because of misjudgement of vehicle speed and behaviour from the cyclist.
- One serious accident on 19 September 2022 at 22:35 (dark) in dry conditions. The incident involved 1 motorbike and occurred because of the driver being inexperienced (a learner).
- One serious accident on 20 June 2023 at 17:30 (daylight, streetlights present) in dry conditions. The incident involved 1 bus, where the bus driver braked sharply at a roundabout, causing a passenger to slide out of his seat and bash his head.
- One serious accident on 01 October 2023 at 21:10 (darkness, street lights present) in dry conditions. The incident involved 1 vehicle, where the driver, impaired by alcohol, entered Southgate Roundabout from the A23, passed the first and second exits, and possibly intended to leave via the third or fourth.

Crawley Road

2.54 Along Crawley Road between Faygate Roundabout and the Horsham Road/ Sullivan Drive Roundabout, there were 26 slight accidents, and 4 serious accidents occurred. Details of the accidents are below:

- A serious accident on 12 January 2020 at 05:15 (darkness) in wet/damp conditions. The incident involved 1 vehicle, where Vehicle 1, impaired by alcohol and drugs, was traveling north-east along the A264 in lane 3.
- A serious accident on 14 August 2022 at 11:45 (daylight) in dry conditions. The incident involved 1 car and 1 motorbike and occurred as a result of careless driving from the car driver.
- A serious accident on 20 August 2023 at 10:28 (daylight) in wet/damp conditions. The incident involved 1 vehicle, where a lone female driver in Vehicle 1 was traveling from Crawley to Horsham on the A264 in lane 2.
- A serious accident on 30 April 2024 at 10:45 (daylight) in dry conditions. The incident involved 2 vehicles, where both Vehicle 1 and Vehicle 2 were traveling westbound on the A264, approaching Kilnwood Vale Roundabout in the nearside lane.

Breezehurts Roundabout

2.55 A cluster of 10 slight accidents and 3 serious accidents occurred at or within 100m of Breezehurst Roundabout. Details of the accidents are below:

- A serious accident on 28 October 2022 at 17:36 (dark) in dry conditions. The incident involved 1 motorbike and 1 car and occurred because of careless driving from the car driver.
- A serious accident on 28 July 2022 at 13:10 (daylight) in dry conditions. The incident involved 2 cars and occurred because of one vehicle failing to judge the path or speed of the other.
- One serious accident on 18 March 2023 at 14:09 (daylight) in wet/damp conditions. The incident involved 2 vehicles, where Vehicle 2 stopped to give way to traffic at the entrance to Breezehurst Roundabout. Vehicle 1 then drove into the back of Vehicle 2, causing a slight headache to the passenger in Vehicle 1.

Broadfield Roundabout

2.56 A cluster of 14 slight accidents and 2 serious accidents occurred at the Broadfield Roundabout. Details of the accidents are below:

- A serious accident on 15 August 2021 at 13:16 (daylight) in dry conditions. The incident involved 1 car and 1 motorbike and occurred because of reckless behaviour from the car driver.
- One serious accident on 20 September 2024 at 15:25 (daylight) in dry conditions. The incident involved 1 vehicle and 2 pedestrians, where Vehicle 2 was stopped in lane two, and Vehicle 1, leaving a roundabout in lane one, collided with pedestrians crossing from offside to nearside.

Horsham Road / Buckswood Drive

2.57 A cluster of 3 slight accidents and 2 serious accidents occurred within 100m of the junction between Horsham Road and Buckswood Drive. Details of the accidents are below:

- A serious accident on 06 December 202 at 03:30 (dark) in dry conditions. The incident involved 1 car and 1 bus and occurred because of the car driver being impaired by alcohol.

- One serious accident on 11 September 2023 at 15:55 (daylight) in dry conditions. The incident involved 1 vehicle and 1 pedestrian, where Vehicle 1 was traveling north to south along A2220 Horsham Road. Vehicle 1 was in the outside lane, accelerating to the speed limit.

Cheals Roundabout

2.58 A cluster of 17 slight accidents and 4 serious accidents occurred at Cheals Roundabout. Details of the accidents are below:

- A serious accident on 16 May 2022 at 21:44 dark) in dry conditions. The incident involved 1 motorbike and one car and occurred because of incorrect signalling.
- A serious accident on 06 August 2022 at 19:23 (daylight) in dry conditions. The incident involved 1 car and 1 cyclist and occurred because of the vehicle being too close to the cyclist.
- A serious accident on 15 April 2023 at 17:04 (daylight) in dry conditions. The incident involved 1 vehicle and 1 cyclist, where Vehicle 1 entered the roundabout without seeing the cyclist, hitting them at around 10-15 mph.
- A serious accident on 26 September 2023 at 21:00 (daylight) in dry conditions. The incident involved 2 vehicles and 1 cyclist, where Vehicle 1 lost control due to a deposit on the road and fell off, landing in the kerb line.

Crawley Avenue / Gossops Drive

2.59 A cluster of 2 slight accidents and 3 serious accidents occurred at the T-junction between Crawley Avenue and Gossops Drive. Details of the accidents are below:

- A serious injury on 29 January 2023 at 01:59 (dark) in dry conditions. The incident involved 2 cars and occurred because of drunk driving.
- A serious injury on 21 December 2021 at 04:05 (dark) in wet conditions. The incident involved 1 bus and one pedestrian and occurred because of the pedestrian being impaired by alcohol and failing to look properly.
- A serious accident on 06 June 2024 at 23:44 (darkness) in dry conditions. The incident involved 2 vehicles, where Vehicle 1, traveling north, failed to stop at a red traffic signal and collided with Vehicle 2, which was turning right with a green signal. Both vehicles were damaged, and all occupants sustained injuries.

Ifield Roundabout

2.60 A cluster of 32 slight accidents and 4 serious accidents occurred at Ifield Roundabout. Details of the accidents are below:

- A serious injury on 14 January 2020 at 13:35 (daylight) in wet conditions. The incident involved 1 van and 2 cars and occurred because of failed judgements of other road users and sudden breaking.
- A serious injury on 29 July 2021 at 07:43 (daylight) in dry conditions. The incident involved 1 car and 1 bicycle and occurred because of the car driver failing to look properly.
- A serious accident on 04 January 2024 at 10:33 (daylight) in dry conditions. The incident involved 2 vehicles and 1 pedestrian, where the driver of Vehicle 1 suffered a medical episode at the wheel while approaching a roundabout.
- A serious accident on 13 November 2024 at 14:25 (daylight) in dry conditions. The incident involved 2 vehicles, where Vehicle 1, approaching Ifield Roundabout on Ifield Avenue, believed that Vehicle 2 had pulled away, but it had not.

Crawley Avenue

2.61 A cluster of 1 slight, 2 serious accidents and 1 fatal accident occurred on Crawley Avenue approximately 800m south-west of Ifield Roundabout. Details of the accidents are as below:

- A fatal injury on 25 November 2022 at 14:45 (daylight) in dry conditions. The incident involved one car and one pedestrian. The fatality was a result of the pedestrian misjudging the vehicles path or speed.
- A serious injury on 10 June 2021 at 14:50 (daylight) in dry conditions. The incident involved two cars. The accident was because of one car colliding into the back of a stationary vehicle in traffic.
- A serious injury on 20 August 2021 at 15:00 (daylight) in dry conditions. The incident involved 2 vehicles. The accident was because of one car colliding into the back of a stationary vehicle in traffic.

Ifield Drive / The Mardens

2.62 A cluster of 7 slight accidents and 1 serious accident occurred at or within 300m vicinity of the junction between Ifield Drive and the Mardens. Details of the accidents are as below:

- One accident on 10 November 2023 at 13:07 (daylight) in wet/damp conditions. The incident involved 2 vehicles, where Vehicle 1 was driving westbound along Ifield Road, approaching the junction with Lady Margaret Road. Vehicle 2, driving eastbound along Ifield Road, turned right into Lady Margaret Road and collided with the offside front bumper of Vehicle 1.

Summary

2.63 A PIA review has been undertaken and concluded, from the information available, that the incidents recorded on the local highway network are attributable to factors unrelated to the design of the local highway network. Whilst a total of 262 accidents were recorded across area the study area is a large area of the local highway network and covers a five-year period. The pattern of accidents is commensurate with the type of road and flows observed at these locations.

2.64 The PIA data has not highlighted any potential deficiency in the design of the highway network and hence it is considered there are no prevailing highway safety issues that need to be addressed within the study area.

Summary

2.65 This section has described the location of the Site in relation to the wider area, including local highways, pedestrian routes and cycle networks.

2.66 The Site is readily accessible by three regular bus services (routes 2, 21, 200), which operate within approximately 1.4km walking distance. These bus services provide connections to key destinations such as Tilgate, Ifield, Crawley, Horsham, Gatwick, Dorking and Epsom, as well as Gatwick Airport Rail Station.

2.67 Ifield Rail Station is located approximately 1.2km from the Site and offers regular services throughout the day. During the morning peak, two trains per hour operate towards London via Crawley, Three Bridges and Gatwick Airport, while five trains per hour run towards Horsham. In the evening peak, five trains run from London to Ifield and two trains per hour run from

Horsham to Ifield. During off-peak periods, the station is typically served by two trains per hour in each direction.

2.68 It has been demonstrated that a range of key facilities are located within a reasonable walking and cycling distance of the Site, supporting sustainable travel choices.

2.69 It has also been demonstrated that there are no fundamental deficiencies in the design of the existing highway network. The majority of PIAs in the area are attributed to driver behaviour, rather than infrastructure issues.

3 Transport Policy and Guidance

Introduction

3.1 This section details the transport policy and guidance against which the Proposed Development has been considered.

3.2 A detailed overview of each national, regional and local policy document is provided in the Transport Policy and Guidance technical note included at **Appendix E**, this chapter is provided to detail a list of the transport policy and guidance documents that have been used to inform the Proposed Development.

National Policy and Guidance

- National Planning Policy Framework (NPPF) (2025)
- National Planning Practice Guidance (NPPG) (2019)
- Manual for Streets (MfS)
- Manual for Streets 2 (MfS)
- Design Manual for Road and Bridges (DMRB)
- Local Transport Note (LTN) 1/20 Cycle Infrastructure Design
- Active Design (Active Travel England / Sport England / Department for Health and Social Care) (2023)

Regional Policy and Guidance

- West Sussex Active Travel Strategy 2024-2036
- Transport for the South East (TfSE) Strategic Investment Plan (2023);
- Transport for the South East (TfSE) Transport Strategy for the South East (2020);
- West Sussex Transport Plan 2022-2036;
- West Sussex Walking and Cycling Strategy (WSWCS) 2016-2026;
- West Sussex County Council Guidance for Parking in New Developments (2020);
- West Sussex Cycling Design Guide - A Guide for Developers, Planning and Engineers (2019); and
- West Sussex Development Travel Plan Policy

Local Policy and Guidance

- Horsham District Planning Framework
- Emerging evidence base from the Horsham District Local Plan (emerging) (2030-2040);
- Crawley Local Plan 2023-2040 (2024);
- Crawley Transport Study (2021);
- Horsham Transport Study (2021); and
- Crawley Transport Strategy – New Directions for Crawley: Transport and access for the 21st century (January 2020)

4 Development Proposals

Introduction

4.1 This chapter of the report describes the development proposals in terms of land use, access arrangements for all modes, car and cycle parking provision, servicing and refuse collection arrangements.

Transport Strategy – The Vision

4.2 The Transport Strategy for the Site has a focus on sustainable transport and draws upon national, Regional and Local Policy as well as best practice and government guidance to promote active travel and reduce dependency on private vehicles. This is complementary to the wider Horsham District Council (HDC), Crawley Borough Council (CBC) and West Sussex County Council (WSCC) Transport Plan. This accords with the new Active Design guidelines by Active Travel England (ATE) (2023).

4.3 The Transport Strategy, whilst accommodating vehicle ownership and use, seeks to capitalise on changing attitudes and policy towards sustainable transport against the backdrop of the Climate Emergency and legally binding commitments for Net Zero Carbon emissions by 2050. Accordingly, key transport decarbonisation principles including reducing the need to travel, and measures to prioritising active travel and public transport as the natural first choice for journeys are integrated into this Transport Strategy.

4.4 The masterplan layout has been designed to prioritise and enable active travel first and then public transport. As well as ensuring the physical layout and provision of facilities (e.g. cycle parking) and encouraging active travel, Homes England is committed to delivering a package of sustainable transport measures that further encourage non-car travel. The strategy supports active travel, creates active high-quality places and spaces and it ensures these spaces are activated through their design and the networks created to connect them.

4.5 The Crawley Transport Strategy, *New directions for Crawley – Transport and access for the 21st century* (March 2020), has an emphasis on encouraging the use of public transport and active travel in preference to increasing highway capacity and has informed the Transport Strategy for West of Ifield. These themes are consistent with objectives outlined in the draft *West Sussex Transport Plan 2022 to 2036,* particularly the need to reduce travel by car by enabling local living. Policy 42 – *Sustainable Transport* in the emerging HDC Local Plan (Regulation 18) includes the same commitment to developing integrated communities connected by a sustainable transport system *"In order to manage the anticipated growth in demand for travel, development proposals which promote an improved and integrated transport network, with a re-balancing in favour of non-car modes as a means of access to jobs, homes, services and facilities, will be encouraged and supported."*

4.6 The Transport Strategy also promotes flexible design approaches which are integrated into the emerging masterplan to future proof for changing travel behaviours and advances in technology

to realise a sustainable community which could form the first phase of a wider strategic development opportunity west of Crawley.

Development Proposals

4.7 The Proposed Development comprises:

"Hybrid planning application (part outline and part full planning application) for a phased, mixed use development comprising:

A full element covering enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school Site and future development, including access to Rusper Road, supported by associated infrastructure, utilities and works, alongside;

An outline element (with all matters reserved) including up to 3,000 residential homes (Class C2 and C3), commercial, business and service (Class E), general industrial (Class B2), storage or distribution (Class B8), hotel (Class C1), community and educational facilities (Use Class F1 and F2), gypsy and traveller pitches (sui generis), public open space with sport pitches, recreation, play and ancillary facilities, landscaping, water abstraction boreholes and associated infrastructure, utilities and works, including pedestrian and cycle routes and enabling demolition.

This hybrid planning application is accompanied by an Environmental Statement.

This hybrid planning application is for a phased development intended to be capable of coming forward in distinct and separable phases and/or plots in a severable way."

4.8 The full (Phase 1) element will include:

- Delivery of the first phase of the Crawley Western Multi-Modal Corridor, a new road with a dedicated bus lane and regular traffic lane in each direction, to form a connection from Charlwood Road to the east and the primary access route to the development.
- A primary street forming a spine road incorporating primary and secondary street connections, together with parking and loading bays, street lighting and fixtures.
- Active travel provision with dedicated cycle ways and footways within the primary street.
- Mobility Hubs and provision for bus transport with bus stops, car club bays, and bus priority through a bus-only connection to Rusper Road in the east.
- Bridge crossing of the River Mole.
- Site clearance and enabling works, including utilities diversions.
- Utilities, surface and foul drainage infrastructure to service the planned development plots.
- Landscape works incorporating sustainable urban drainage system (SuDS) corridors, flood mitigation features, ecological mitigation and enhancement, noise mitigation (including noise bund) and soft landscaping.
- Local amendments to existing public rights of way.

4.9 The outline element will include:

- Phased mixed use development of up to 3,000 homes, including a range of flats and houses, of which 35% will be affordable.
- Neighbourhood centre and associated community facilities, including a primary and secondary school, and minimum commitments to health centre, community centre, early

year nursery and Local Leisure facility, alongside small scale centre uses including retail and potential hotel.

- Employment uses including flexible office and innovation space, alongside general industrial and logistics space across the neighbourhood centre and in the River Valley character area.
- Allowances for the potential delivery of specialist accommodation to suit older persons, as well as up to 15 gypsy and traveller pitches and commitments to Custom and Self build housing
- Public open space and multifunctional green space with allotments, sports pitches, including a new sports hub, recreation, amenity green space play and ancillary facilities, retained landscape features, a minimum of 10% net gain in biodiversity, and strategic green space commitments.
- Allowances for key infrastructure and utilities, notably to achieve water neutrality including water treatment works and abstraction boreholes.
- The prioritisation of more sustainable travel modes and facilitated active mode connections, including an off-Site pedestrian and cycle link across Ifield Meadows, off-Site improvements to connect to Ifield station via public transport and cycle links, and through safeguarded expansion to multi-modal corridor provided under the detailed element.

4.10 **Table 4.1** below shows a summary of the land uses and floor areas/units that are proposed as part of the Site. These are to act as maximums and although not all of these will be provided, they have all been tested as part of the Transport Assessment to ensure the worst-case scenario has been assessed.

Table 4.1: Proposed Development Uses (maximum floor area)

Land Use	Land Use Class	Schedule	Floor Area / Units
Residential	C3	Dwellings	3,000 units
Secondary School	F1	Forms of Entry	9 form entry
Primary School	F1	Forms of Entry	3 form entry
Office	E(g)	Floorspace (sqm)	28,930 sqm
Food Store Retail	E(a)	Floorspace (sqm)	5,200 sqm
Healthcare	E(e)	Floorspace (sqm)	1,500 sqm
Leisure	E(d)	Floorspace (sqm)	3,400 sqm
Community Centre	F2	Floorspace (sqm)	1,200 sqm
Creche	E(f)	Floorspace (sqm)	1,100 sqm
Hotel	C1	Bedrooms	80 beds

4.11 Subject to the approval and any conditions placed on the grant of permission for the Hybrid Planning Application (HPA), construction is estimated to commence in 2027, with initial occupation of the secondary school anticipated in 2028, and the homes in 2029 and continuing until 2041. An outline of indicative phasing across the Site is set out the Design and Access Statement (DAS). An indicative phasing is set out below

- Phase 1 - 0 homes
- Phase 2 - 1,249 homes
- Phase 3 - 713 homes
- Phase 4 – 764 homes
- Phase 5 – 274 homes

- Phase 2 - 1,249 homes

Access Strategy

4.12 The access strategy is summarised and discussed in detail below:

- Primary access to the Site, and the start of the Crawley Western Multi-Modal Corridor (CWMMC) will be taken from the east via a new signalised junction between Charlwood Road / Bonnetts Lane / Ifield Avenue / Ifield Green / CWMMC;
- Rusper Road will be closed to through traffic where it crosses the CWMMC. Access to the north, via Rusper Road is maintained through the connection of Rusper Road and the CWMMC.
- A Secondary access is to be provided from Rusper Road (in close proximity to the existing Golf Course access). This will be for buses only, as well as emergency vehicles, pedestrians and cyclists.
- Pedestrian and Cycle connectivity is provided through multiple east west routes between the Site and the existing network of pedestrian routes.

Crawley Western Multi-Modal Corridor (CWMMC)

4.13 This Hybrid Planning application includes a full application for the CWMMC which comprises:

"A full element covering enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school Site and future development, including access to Rusper Road, supported by associated infrastructure, utilities and works."

Planning Policy

4.14 The provision of the CWMMC is supported in local and regional policy documents, as summarised below.

4.15 Systra on behalf of CBC, produced the Crawley Western Link Road, Northern Section Study in March 2022 (updated in March 2023) as part of the evidence base for the newly adopted Crawley Local Plan. Paragraph 2.2.1 of this document states the following:

"The West Sussex Structure Plan 2001-2016 identified the Crawley Western "relief road" as infrastructure which could improve safety, reduce congestion, improve mobility to the benefit of the local economy and result in an overall improvement to the environment. The West Sussex Transport Plan 2006-2016 included a strategy to improve links to the west of Crawley which would support new development while protecting neighbourhoods from through-traffic and helping reduce congestion especially on the A23 Crawley Avenue."

4.16 The Strategic Policy HA2 for Land West of Ifield outlined in the HDS Horsham District Local Plan 2023-2040, Regulation 19 (January 2024), sets out that:

"It is recognised that a proposal for 3,000 homes is unlikely to be able to deliver a full Crawley Western Multi-Modal Corridor that connects the A264 at Faygate to the A23 south of Gatwick Airport, north of County Oak. Within the Gatwick Diamond area, it is recognised that other development may have the potential to come forward during the plan period (such as further growth of Gatwick Airport) and therefore other requirements or funding for this route may emerge during the Plan period. Land is therefore safeguarded in the plan to allow for the delivery of such a road."

4.17 The HDC Infrastructure Delivery Plan (2024) states that the delivery timescale for the CWMMC is in Phase 2 of the Proposed Development (Land West of Ifield). The Applicant (Homes England) are committed to completing the multi-modal route 'middle section' prior to any substantial development being occupied.

4.18 The HDC Infrastructure Delivery Plan (2024) outlines that the 'middle section' of the CWMMC will be funded by Homes England, plus further funding from WSCC / Homes England / Government. However, Homes England have made it explicably clear that the 'middle section' of the CWMMC will be fully funded and delivered by themselves.

4.19 The traffic modelling that forms the evidence base for both the HDS Horsham District Local Plan 2023-2040, Regulation 19 (January 2024) and CBC Local Plan (adopted 2024) has identified that a full CWMMC is not necessary to deliver the allocated development within the HDC or CBC Local Plan.

4.20 A sensitivity test was completed as part of the Crawley Transport Study (2022) to consider the potential impacts of a CWMMC. Note that the report refers to the CWMMC as the CWLR. The Crawley Transport Study (2022) states the following regarding the test:

"A sensitivity test has indicated mixed results about the potential benefits of the CWRL to further mitigate the impacts of the West of Ifield and Kilnwood Vale Sites when compared to the no CWLR scenario. Minor roads to the west i.e. Faygate Lane and Rusper Road are forecast to benefit from reduction/relief in flows, but there are very little flow reductions on the rest of the network including Crawley Avenue. In most cases the CWLR improves junction performance compared to the scenario without the CWLR, however the improvements do not go so far as to match or better Reference Case performance.

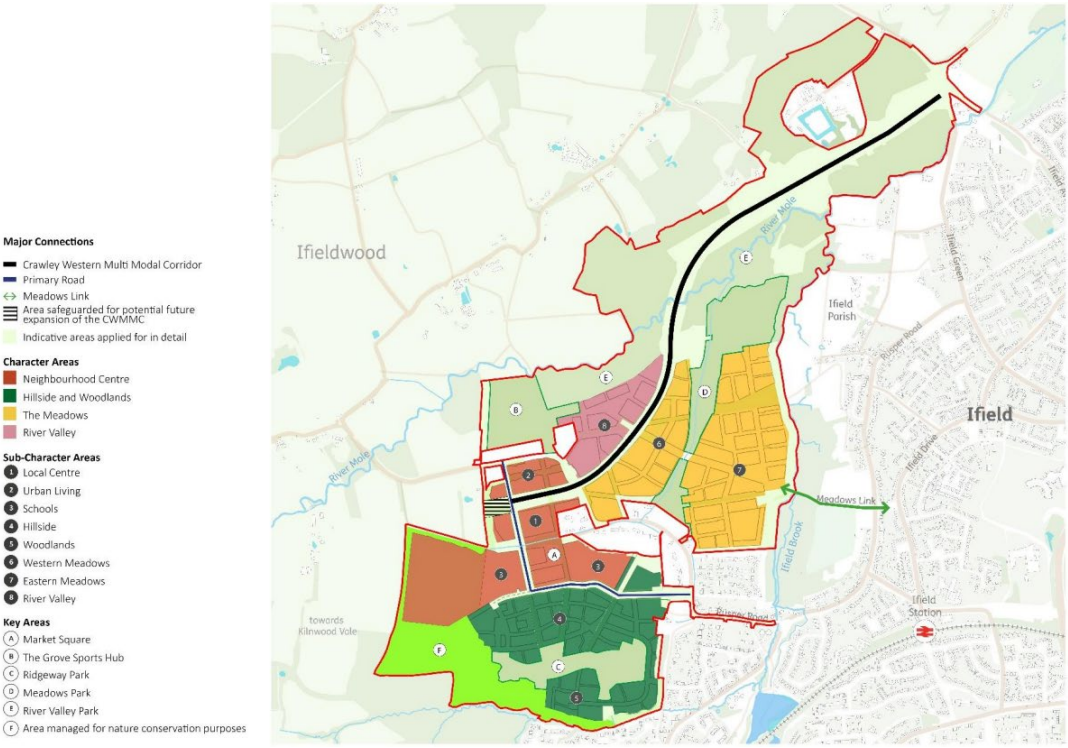
4.21 Therefore, it is evident that the full delivery of the CWMMC is not essential for the delivery of the HDC Local Plan 2023-2040, as set out in the Crawley Transport Study (2022).

4.22 The HDC Infrastructure Delivery Plan (2024) sets out the delivery timescales for the infrastructure in the borough. The report sets out that the 'middle section' of the CWMMC is to include shared transport, high quality bus provision and active travel facilities through the route, and is anticipated to be completed in Phase 2 of the development.

4.23 The first phase of a Crawley Western Multi-Modal Corridor (CWMMC) from Charlwood Road will support the Proposed Development but will be designed appropriately to provide a future relief function as part of a full CWMMC, if it is extended to the A23 and A264 in the future.

4.24 The proposed first phase of the alignment of the CWMMC and future safeguarding for the continuation of the full Crawley Western Link is shown below in **Figure 4.1**.

Figure 4.1: Proposed route for CWMMC through West of Ifield (Hybrid Application Context Plan)



4.25 The Crawley Western Multi-Modal Corridor (CWMMC) has been designed as a multi modal route with the following principles established:

- Single carriageway with a continuous bus lane in each direction.
- Segregated wide cycleways separate from footways with priority at junctions.
- Segregated footways, minimum 2.0m and widening in the neighbourhood centre.
- Varying speeds, including 20mph through the neighbourhood centre and 30mph elsewhere were appropriate.

4.26 The full extent of the CWMMC within the redline and the access points at Charlwood Road, Rusper Road (north), Rusper Road (south) and where the CWMMC crosses Rusper Road will be secured in detail alongside the outline application.

4.27 The design principles are depicted in the illustrative cross-sections provided in **Appendix F**, although the corridor may be narrowed where appropriate to ensure it is sensitive to the surrounding landscapes.

4.28 An indicative section of the CWMMC is shown in **Appendix F**. Where possible the corridor width will be minimised, but it will also maintain as much of the existing ecology as possible, particularly the mature trees. This will create a more inviting experience for those using it. Beyond the neighbourhood centre (east of developed land) the cycle lane and footway will be on the southern side of the link road only, with a signalised crossing available for people to use. This will help to reduce the width of the corridor significantly in the rural country park area of the Site, whilst still providing significant transport benefits to those using the multi modal corridor. The cycle and pedestrian route has been designed to tie in effectively at the Charlwood Road junction to enable onward travel.

4.29 Crawley Borough Council has safeguarded land for the eastern extension (to the north east) of the link is shown in **Figure 4.2**. The design presented by Homes England ties into this

safeguarding corridor to ensure any future extension can be easily undertaken. As stated in Strategic Policy HA2, HDC Horsham District Local Plan 2023-2040, Regulation 19 (January 2024, land will be safeguarded to allow for the full delivery of the CWMMC towards the A264 at Faygate.

Figure 4.2: Safeguarded land for eastern expansion of CWMMC (plan drawn by Systra on behalf of CBC): Refined CWMMCR northern section area of search

4.30 These principles are not only established for the first phase of the Crawley Western Link (to be delivered by the Applicant) but are also applicable to any future delivery of the full CWMMC.

4.31 These principles are aligned with the aspirations set out at Policy ST4 of the Adopted Crawley Local Plan (2024) which seeks to safeguard a search corridor for the Crawley Western Link and promotes a route design which accounts for bus priority, future proofing for traffic growth and connectivity for non-vehicular modes of transport between Crawley's urban neighbourhoods and the wider Sussex countryside.

Primary Access

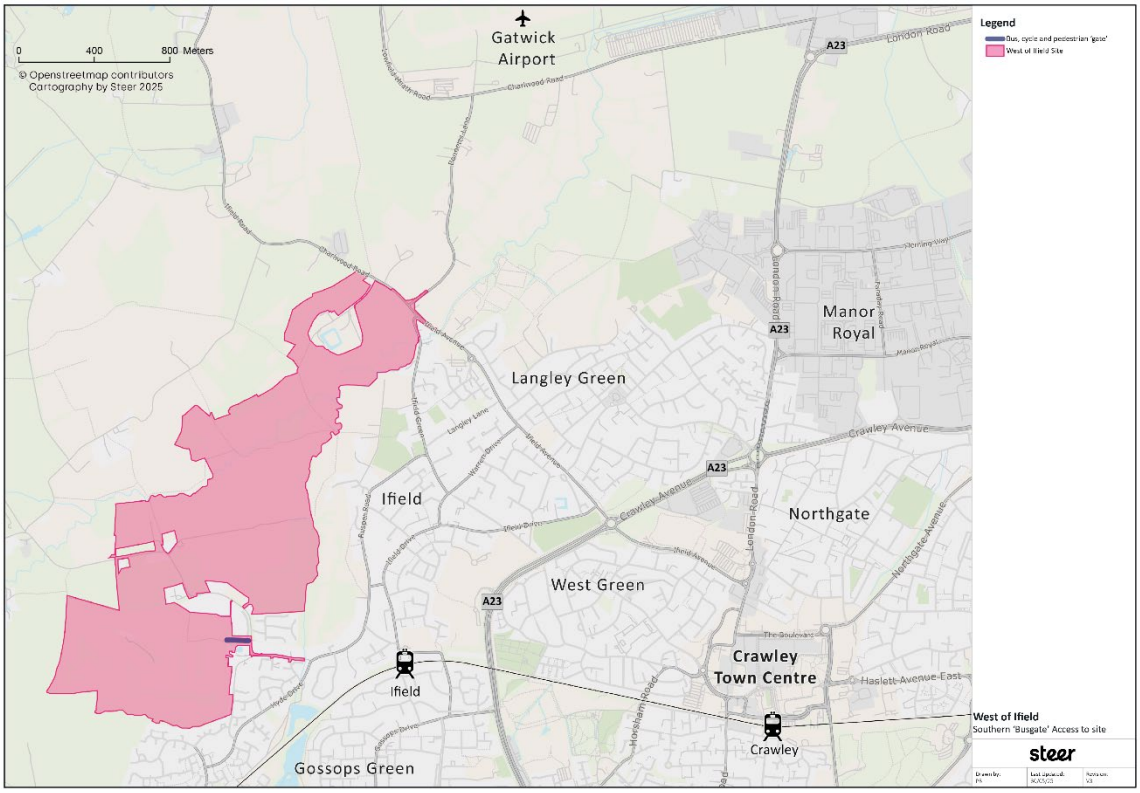
4.32 Primary access to the Site will be taken from the east via a new signalised junction between Charlwood Road / Bonnetts Lane / Ifield Avenue / Ifield Green / CWMMC.

4.33 A detailed plan of the access arrangements is included within **Appendix G**.

Southern access

4.34 Access into the Site from the south will only be available to pedestrians, cyclists and buses through the proposed bus gate at the entry to the existing Ifield Golf Course, as shown in **Figure 4.3**.

Figure 4.3: Southern 'bus gate' access to Site



Rusper Road

4.35 In order to provide a safe and comfortable route for cyclists and pedestrians and bus services and reduce additional vehicular traffic impacting the existing Ifield community, the West of Ifield Masterplan proposes the stopping up of Rusper Road to the east side of the development (north of the existing Ifield Golf Club entrance). Access will be maintained via the northern side and with access to/from the CWMMC.

- The closure of Rusper Road east of the CWMMC ("Stopping up") has therefore been proposed for a number of reasons:
- It reduces the traffic on Rusper Road east of the development to enable an enhanced and safer environment for pedestrians and cyclists between the development, existing Ifield community and Ifield Station and onwards towards Crawley Town Centre.
- It reduces the traffic on Rusper Road east of the development to respond to resident and Council concerns regarding rat running through the local roads within the existing Ifield community.
- It stops any additional development related traffic entering the majority of residential roads within the neighbouring Ifield area.
- It enables the narrow route along Rusper Road to be used by the Fastway bus service which would be compromised with through traffic.

4.36 It is acknowledged that for a small number of Ifield residents that travel west towards Rusper and beyond there is a delay to journey times due to having to use the new CWMMC to access Rusper Road to the west. However, for those travelling to destinations other than to the north west, routing will be similar. Destinations further west that are serves by rail will be connected by the new Fastway bus service which will provide an enhanced connection to Ifield station to make those connections

4.37 A detailed plan of the access arrangements is included within **Appendix H**. Rusper Road would only be stopped up once the CWMMC is complete and opened to through traffic, as part of Phase 1.

4.38 An extensive exercise was undertaken in respect to whether Rusper Road should remain open or be closed and various junction and road designs were considered. These options were considered by the development team, stakeholders, and WSCC. At the end of this assessment it was concluded that the best option would be too close Rusper Road to through traffic. While this does create some inconvenience for those which use Rusper Road, especially those travelling to and from Rusper, as set out above it does provide a betterment for existing residents of Rusper Road in terms of traffic flows around Hyde Drive and Ifield West, and on balance is considered to be the best option.

Impact on Existing Residents?

4.39 Existing residents travelling from Rusper Road towards Crawley, the existing Rusper Road will be diverted into the Site to connect to the CWMMC. From here, journeys into Crawley will be made via Ifield Avenue while those wanting to head towards Ifield will use Ifield Green to rejoin Rusper Road.

4.40 Travelling from Crawley towards Rusper, the same journey would be taken in reverse, with drivers turning left from Ifield Avenue, Ifield Green to access the CWMMC before rejoining the existing Rusper Road.

4.41 It is estimated that during peak times, overall journey times could be extended by between 4-5 minutes, but in part these will be offset by a package of other off-Site highway improvements such as those planned at the junctions on Ifield Avenue.

What will happen to the existing Rusper Road

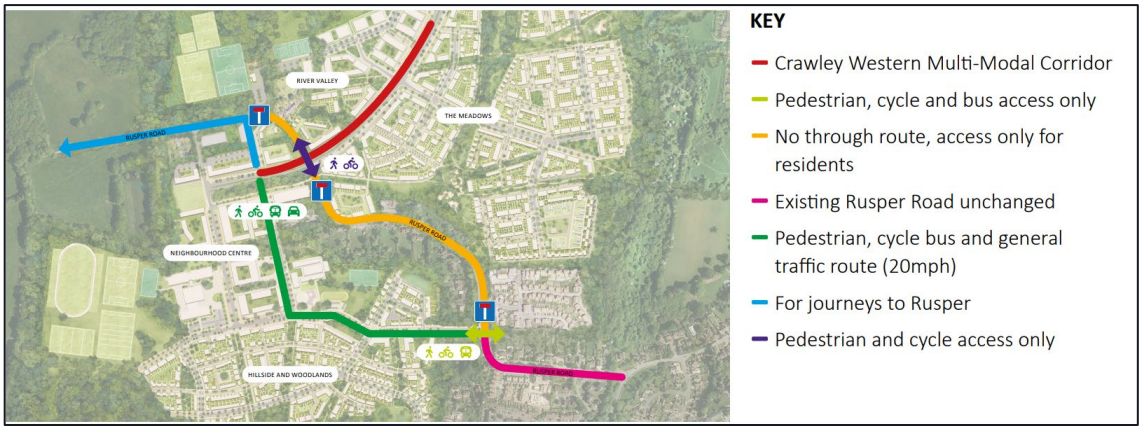
4.42 The changes to Rusper Road are illustrated in **Figure 4.4** below. Where Rusper Road is no longer providing for through traffic, it will become part of the active and sustainable travel network connecting existing residents in Crawley to the new facilities within the neighbourhood centre as well as connecting future residents of the development to Ifield Station.

4.43 Along the orange sections, existing residents will still be permitted to access their properties, but it will become a no through route. On this section, walking and cycling conditions will be improved and east-west connectivity maintained via a new crossing of the CWMMC.

4.44 The pink section of Rusper Road will also see a significant reduction in vehicle movements. This means it will be suitable as a main bus route that will connect the scheme to Crawley Town Centre and Ifield Station. Small scale improvements along this section alongside SMART technologies will allow for buses to be prioritised and to access the Site via a bus only gate where the current Golf Club entrance is located.

4.45 The scheme will also help facilitate improvements to walking, cycling and bus priority to be made within the local areas as set out in the Crawley Local Cycling and Walking Infrastructure Plan (LCWIP).

Figure 4.4: Rusper Road reconfiguration



Liaison with Local Authorities

4.46 These merits and considerations have been discussed at length with the local authorities (Horsham District Council, Crawley Borough Council and West Sussex County Council). The interaction of Rusper Road and the Crawley Western Link was first discussed at a workshop in October 2019 and WSCC and CBC provided comments as a follow up in November 2019 as below:

> *The path of Rusper Road needs to be considered in detail.*
>
> *It may be possible to allow private vehicles to continue to use a version of this alignment as a through route and continue to accommodate optimum access for BRT. Reducing the vehicular carriageway width and diversion5 and confusion of the vehicular path in places could render the path such a slow moving meandering choice for private vehicles that it would discourage use, Specifically;*
>
> *(a) The through route could be closed to private motor vehicles at specific times of the day during e.g. peak periods.*
>
> *(b) Restricting vehicular speed to 20mph at most.*
>
> *(c) To exploit and further enhance the established rural country lane character6 of Rusper Road, Considerable portions of current carriageway width, along this route, could be given over to non-vehicular movement only. This will allow it to primarily function as a meandering rural promenade /country laneway, with clear and dominating prioritisation of pedestrians and cyclists. The width of carriageway along this route significantly reduced. (Allowing for shared surface in places, raised platforms, continual pedestrian priority along its length, vehicular pinch points).*
>
> *(d) Not allow for through commercial traffic or commercial vehicles above (xyz axel vehicles / tonnage- apart from deliveries).*
>
> *(e) In key locations, carriage way widths can be reduced to 1 lane requiring two way traffic to yield and progress in turn.*

4.47 The exact configuration has remained a topic of discussion and refinement since then in various Transport and Masterplan pre-application meetings, including with HDC.

Public Consultation and Exhibition

4.48 The public consultation undertaken in October and November 2022, discussed the stopping up of Rusper Road in detail with the local community. Although some people will be disadvantaged by the longer route, there was equal support for it and the positive impact on the existing Ifield community by reducing the through traffic. The latest and final proposed strategy for the changes to Rusper Road was presented during a public exhibition in April 2025.

Rusper Road Summary

4.49 In summary, the proposals to stop up Rusper Road have minimal disbenefit to existing motorised road users, however the benefits to both existing residents walking and cycling along this route, as well as those new residents within the West of Ifield development will far outweigh this. Both the new and existing residents will also benefit from the proposed Fastway bus services which would be compromised with the through traffic along Rusper Road south (due to the constrained public highway width.

North West Access

4.50 The northern access point from Rusper Road into the neighbourhood centre is shown in **Figure 4.4**. This priority junction, which, taking on board feedback from the local authorities, redefines the main route as turning into the neighbourhood centre rather than continuing on the stopped up Rusper Road. The access will be a single carriageway in each direction, plus footway and cycle way on each side of the road. A detailed plan of the access arrangements is included within **Appendix H**.

Stage 1 Road Safety Audit

4.51 The design of the access points will be subject to an independent Stage 1 Road Safety Audit. This will be undertaken following initial comments on the scheme, but prior to determination.

Pedestrian and Cycle Access

Internal Provision

4.52 The Site has been designed to put active travel modes first and be the top choice for residents, whilst noting that everyone has different needs and therefore in order to be inclusive, a range of infrastructure interventions will be delivered, including the provision of Mobility hubs which will link together these mobility options.

4.53 There will be a comprehensive, permeable network of walking and cycling routes throughout the development. The provision of a direct network of routes aims to make active travel the most convenient choice for short journeys within the development in order to minimise the number of vehicle trips between on-Site origins and destinations.

4.54 There will be a number of important walking connections within the development, including direct connections between residential areas, the neighbourhood centre as well as proposed education and recreational facilities.

4.55 The network also provides the connections to the edge of the development to enable good connectivity with the adjacent communities and active mobility corridors. Routes will be segregated from traffic and provide direct connections within the masterplan, avoiding level changes and road crossings where possible.

4.56 A clear hierarchy of mobility corridors for active travel have been established within the emerging masterplan, which are LTN1/20 compliant, following the principles set out below and as shown in the Movement and Access Parameter Plan, attached at **Appendix I**:

1. Crawley Western Link – 3m to 3.5m wide cycle lanes and 2m to 2.6m wide footways on both sides of the carriageway.
2. Primary streets – 2.5m wide cycle lanes and 2.0m to 2.5m wide footways on both sides of the carriageway.
3. Neighbourhood centre – low-traffic (occasional servicing), low-speed (20 mph) 4m wide route with cycling on street and 2.0m to 2.5m wide footways with additional retail/communal spill-out space.
4. Secondary streets – low traffic 20mph streets with cycling on-street and 2.0m to 2.5m wide footways on both sides of the carriageway.
5. Residential streets – low speed (20mph), connecting individual plots as 'mews' type streets – cycling on-street and 2m wide footway on on-side or shared surface streets.
6. Traffic-free segregated 3m wide cycle routes along green corridors and providing strategic connections (e.g. across Ifield Meadows). The type of access along the green corridors will need to be sensitively handled, design will need to consider ecology and other constraints.

4.57 The east-west Ifield Meadows linking to Rusper Road, north of Rudgwick Road route forms a key mobility corridor connecting the masterplan and neighbourhood centre with the external network. This will facilitate active travel as a primary choice for trips towards Crawley and other key employment centres.

4.58 The north-south route through the development parallel to the CWMMC forms a green spine through the masterplan, connecting the residential plots in the south with the proposed school plots, neighbourhood centre, east-west arterial route and to recreational amenities north of the CWMMC.

4.59 Cycle route widths are designed in accordance with Department for Transport minimum standards as set out in the Local Transport Note 1/20 and **Table 4.2.**

4.60 Cycling opportunities will also be provided within the internal streetscape. The primary vehicle routes will have segregated cycle lanes on both sides of the street, with priority for cyclists across adjoining junctions and accesses. Secondary and residential streets will be low traffic, low-speed environments and will provide for cycling within the carriageway. The emerging streetscape typologies are presented in the Transport Strategy in **Appendix A**.

Table 4.2: Cycle Lane and Track Widths

Cycle Route Type	Direction	Peak hour cycle flow	Desirable minimum width	Absolute minimum width
Protected space for cycling (including light segregation, stepped cycle track or kerbed cycle track	1-way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2-way	<300	3.0	2.0
		300-1,000	3.0	2.5
		>1,000	4.0	3.0
Cycle Lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

Source: Department for Transport (2020) Local Transport Note 1/20 Cycle Infrastructure Design

4.61 As the masterplan is developed further, pedestrian, cycle and active travel priority measures and schemes will be considered for inclusion.

External Connections

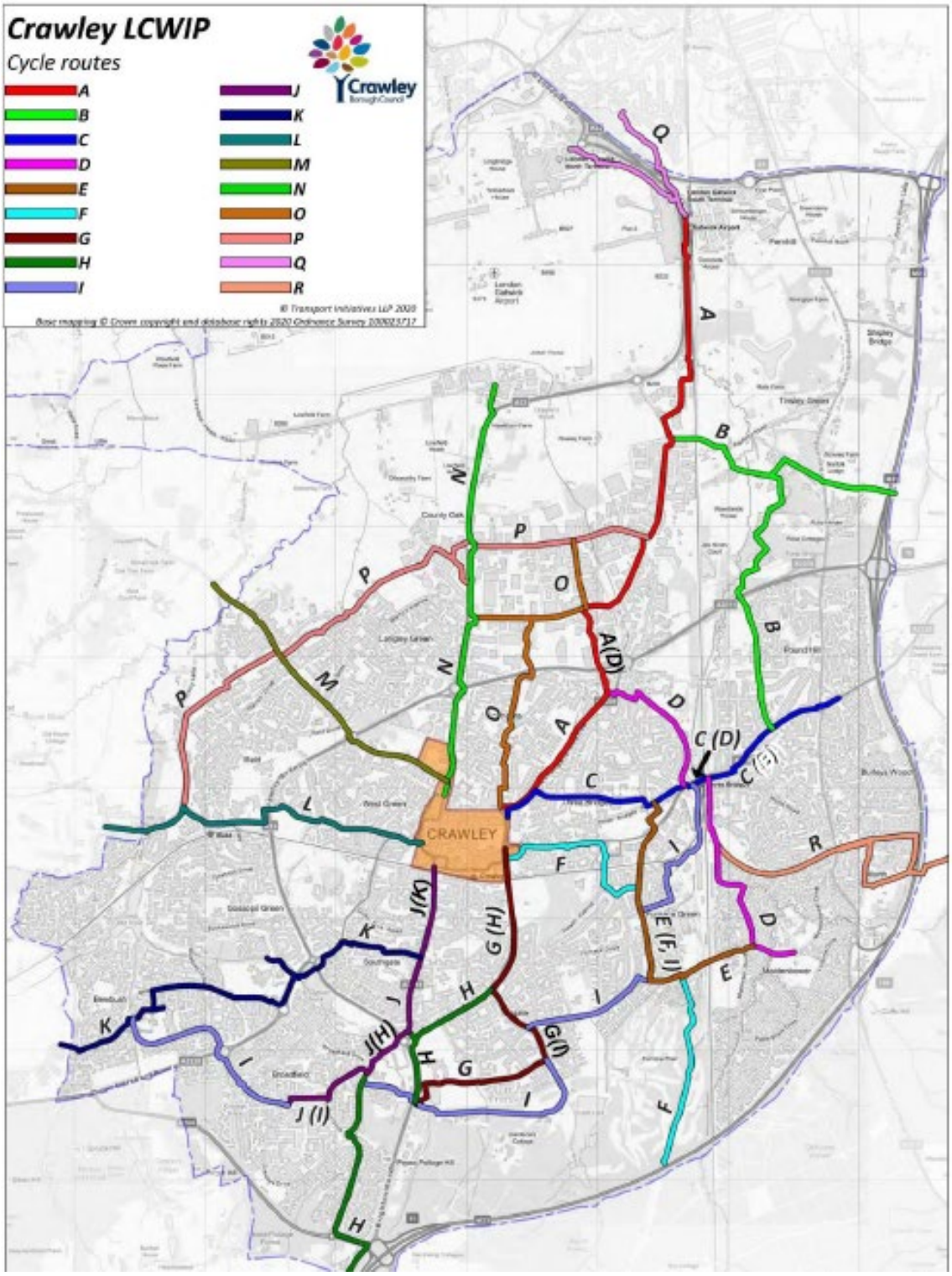
4.62 Equally as important as the on-Site provision are the off-Site mobility corridors and how the proposed network integrates with the existing and future network. There is significant potential for using active modes as a primary choice of travel from West of Ifield for external trips given its proximity to key transport nodes, employment centres and surrounding amenities.

4.63 Crawley Borough Council and Horsham District Council have each developed a Local Cycling and Walking Infrastructure Plan (LCWIP), a costed plan which identifies and prioritises physical infrastructure schemes along specific corridors to enable a significant increase in cycling and walking. The LCWIP provides:

- A cycle network plan of preferred routes for further development based on corridors developed from origin and destination points identified with social and economic data
- A walking zone and route plan for improvements. Crawley town centre was evaluated as the first core walking zone, along with a route to Crawley Leisure Park
- A programme of infrastructure improvements for future investment, identified, specified and prioritised systematically with a range of evaluation tools provided through the Department for Transport (DfT)
- Proposals for how it can be implemented, embedding the plan with other development plans and involving local residents and other stakeholders in taking it forward.

4.64 Crawley LCWIP cycle routes are shown in **Figure 4.5**. Key elements of the improvements identified include the widening of routes where possible, traffic calming and cycle priority at junctions and better crossings.

Figure 4.5: Crawley LCWIP Cycle Routes



Source: Crawley Borough Council (2020) Crawley Local Cycling and Walking Infrastructure Plan

4.65 Routes L, part of M and P in particular are of significant strategic importance to West of Ifield in providing direct connections to Crawley Town Centre and Manor Royal. Indicative costs to deliver routes L, M and P have been identified by CBC at £853k, £480k and £1.21m respectively.

4.66 The LCWIP identifies a number of potential sources of funding for these routes as follows:

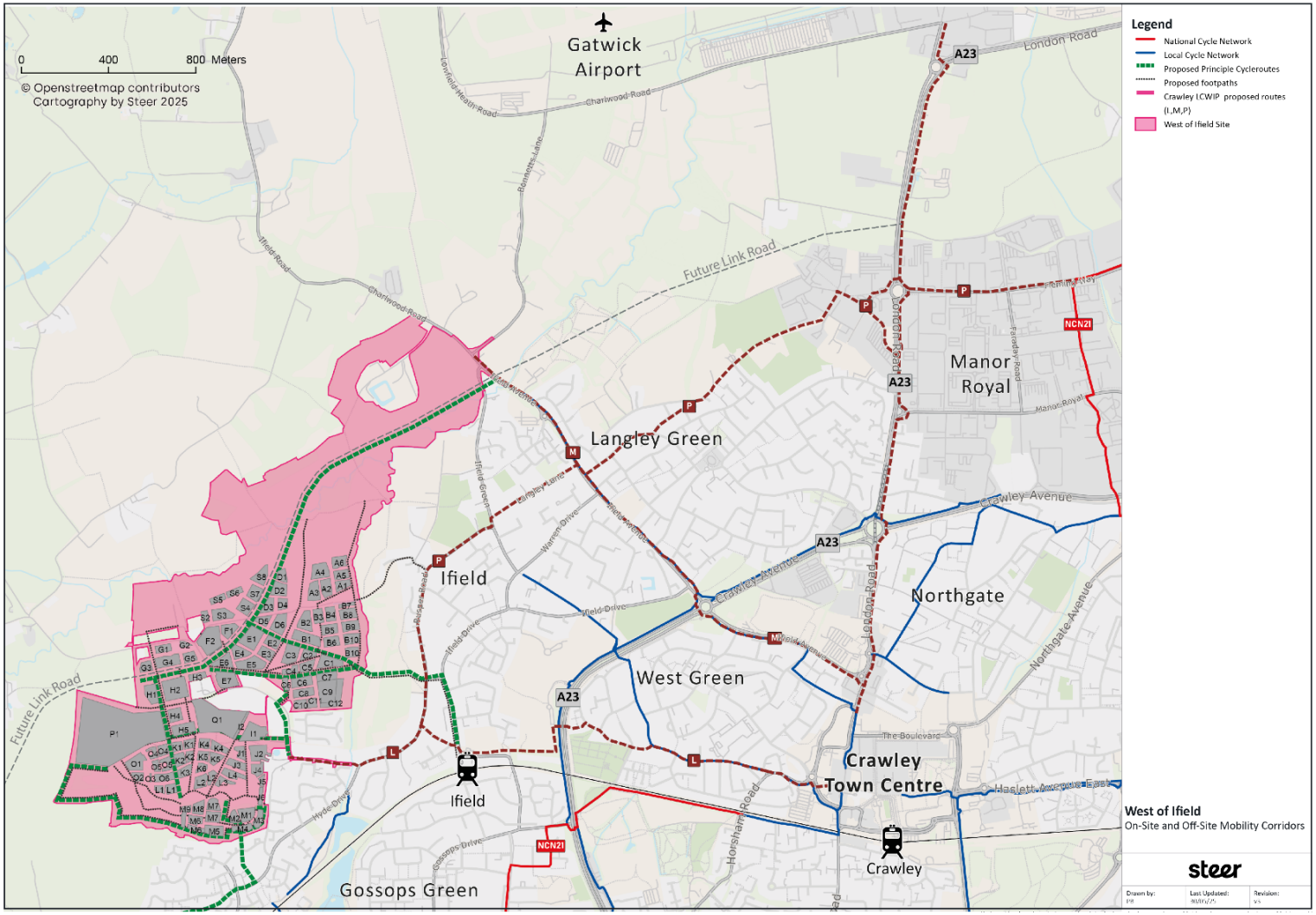
- DfT funding through national Cycling and Walking Investment Strategy (CWIS)
- The Towns Fund
- Direct developer investment as part of a regeneration scheme
- Section 106 and Community Infrastructure Levy (CIL) from new development
- Crawley Growth Programme (extension to the existing programme)
- Future High Street funds
- Air quality improvement funds.

4.67 Recognising the strategic importance of routes L, part of M and route P, Homes England supports the further detailed design work which CBC are progressing and are committed to funding the sections adjacent to the development that mitigate its impact. Additionally, WSCC Walking and Cycling Strategy 2016-2026 describes potential routes connecting Horsham and Crawley as a key priority. Homes England is committed to contributing towards the delivery of these routes which will be secured through s106 negotiations and / or CIL contributions.

4.68 Horsham District Council's LCWIP focusses on routes 5km from Horsham Town Centre and therefore does not extend further northeast than North Horsham development (approx. 3km from the Site). The 3km between north Horsham and the Site is rural land with minimal residential property or other uses, hence the focus being on the more densely populated area for both residents and employment within Horsham itself and the surrounding environs.

4.69 The internal routes discussed earlier in Section 4.7 have been overlaid on the key LCWIP routes to demonstrate the future connectivity of West of Ifield by active modes. **Figure 4.6** illustrates the key mobility corridors.

Figure 4.6: On-Site and Off-Site Mobility Corridors



Public Transport Strategy

4.70 Section 6 provides full details of the Public Transport Strategy. In summary, the Applicant is committed to delivering a sustainable development and as part of that are funding a significant bus service prior to occupation of the first homes. This will provide a high frequency bus service to Ifield Station, Crawley, Manor Royal Business District and Gatwick Airport, linking residents of WoI with both employment and onward public transport options by rail / bus interchange. A second bus route delivered later in the scheme at a stage to be agreed with WSCC will deliver faster connections to Manor Royal and Gatwick Airport, as well as County Oak retail park. By providing bus links (and cycle links) from mobility hubs within WoI to key facilities and interchanges such as the rail stations at Ifield, Crawley, Three Bridges and Gatwick Airport, there are a huge range of options available to residents / employees of WoI to travel by public transport.

4.71 Furthermore, the Applicant is discussing with Network Rail interventions to improve the interchange at Ifield Station. Early feasibility work has identified that it would be possible to:

- Improve waiting facilities on the platforms
- Improve cycle storage opportunities
- Improve the public realm around the station, making it more accessible for pedestrians and cyclists
- Amend parking restrictions to provide some drop off facilities.

4.72 In addition, the residential and workplace travel plans will set out incentives provided to residents and employees to ensure that public transport is considered as a viable option from the first day. Further details of the measures to encourage public transport travel are included in the Travel Plans.

Cycle Parking

4.73 The minimum cycle parking standards as set out by WSCC will be met through communal and personal, secure, cycle parking provision, with provision for electric bikes within this. The wider ambition to provide a higher provision of one cycle parking space per bedroom will be met either by integrated parking within the individual plots or by the addition of shared storage solutions, either as courtyard cycle parking facilities or other shared cycle parking solutions such as the one shown in **Figure 4.7**.

Integrated Cycle Storage

4.74 Cycles are more likely to be favoured as a primary choice of travel where access to cycle storage is the most convenient. Ways in which secure and covered cycle parking can be integrated at the front of each property as per the example below are therefore being considered and will be secured through the Site Wide Design Code, which accompanies the hybrid planning application.

Figure 4.7: Shared Secure Cycle Parking

Source: Marmalade Lane, Cambridge

Non-residential Cycle Parking

4.75 Cycle parking will also be provided in the public realm, in the neighbourhood centre where retail, employment and leisure amenities will be located as well as at transport and mobility hubs. Cycle parking in the public realm will be accessible for different types of cycles and users and will complement or enhance the surrounding public realm. Spaces will be available for recumbent bikes as well as cargo bikes to ensure that all types of bikes can be used within the development.

4.76 Long stay cycle parking for non-residential uses will be located within the floorspace for each non-residential use. An example of potential cycle parking is shown in **Figure 4.8**.

Figure 4.8: Example of Office internal cycle parking with integrated equipment storage

Source: Office Cycle Parking with clothes/equipment storage – Hammersmith, Archello.com

Accessible Cycle Parking

4.77 Cycle parking for non-standard cycles will also be provided within the public realm of the Site for non-residential land uses in line with local policy and guidance. An example of accessible cycle parking is shown in **Figure 4.9**.

Figure 4.9: Example of Accessible Cycle Parking

E-Bikes

4.78 Opportunities to safeguard for E-Bikes are also being considered within the design of the masterplan. This includes consideration of the space and infrastructure requirements at mobility hubs, including charging requirements. A recent study demonstrated that following the pilot of e-bikes, commuting by car dropped from 88% to 63%, whilst bike use increased from 2% to 18%[1].

4.79 Homes England will ensure that suitable charging points are included within the cycle storage provided, either within areas provided in homes, or secure shared cycle parking facilities.

E-scooters

4.80 E-scooters are rising in popularity and although not currently legalised everywhere, the generous provision of footway and cycleways will enable the growing scooter use to be accommodated without causing a detrimental impact on other users in the future, should legislation change.

Cycle parking provision

4.81 The WSCC residential cycle parking standards and requirements are summarised below in **Table 4.3**.

Table 4.3: Minimum Cycle Parking Requirements Based on WSCC Standards

Type	Dwelling size	Provision per unit	Units	
Houses	1 and 2 Bed	1 space	279	279
Houses	3+ Beds	2 spaces	1664	3,328
Flats	1 and 2 Bed	0.5 spaces	1057	529
Flats	3+ Beds	1 space	-	-

[1] Understanding long-term changes in commuter mode use of a pilot featuring free e-bike trials, Danique Ton, Dorine Duives, Transport Policy vol 105, May 2021, p134-144.

4.82 The WSCC non-residential cycle parking standards are set out in **Table 4.4** below.

Table 4.4: Minimum Cycle Parking Requirements Based on WSCC Standards (Non-Residential)

Use Class	WSCC Guidance - Staff	WSCC Guidance - Visitors
E Commercial, Business and Services – Shops and Retail	1 space per 100m^2	1 space per 100m^2
B2 General Industrial	1 space per 200m^2	1 space per 500m^2
B8 Storage	1 space per 500m^2	1 space per 1,000m^2
E Commercial, Business and Services - Business	1 space per 150m^2	1 space per 500m^2
F1 Non-Residential Institutions	Site specific assessment based on travel plan and needs	
E Commercial, Business and Service – Assembly and Leisure	1 space per 4 staff	Site specific assessment based on travel plan and needs
F2 Community Hall	1 space per 100m^2	1 space per 100m^2
C1 Hotel	1 space per 8 Car Parking spaces	
Healthcare	1 space per 100m^2	1 space per 500m^2
Creche	1 space per 100m^2	1 space per 250m^2

4.83 On the basis of the 'up to' development quantum's, the following non-residential minimum cycle parking quantities have been identified, and are summarised in **Table 4.5**. The actual level of cycle parking will be determined at the Reserve Matters stage. Where mixed development occurs, such as within the local centre, the total amount of cycle parking will be reviewed, as there is a likelihood that there will be trip chaining / multiple uses associated with a single trip, and thus the full requirement against the standards would be an over provision of infrastructure.

Table 4.5: Minimum Cycle Parking Quantum's Based on WSCC Standards

Use Class	Quantum	Staff	Visitor	Total
E Commercial, Business and Services – Shops and Retail	28,930sqm	290	290	580
B2 General Industrial	5,200sqm	26	11	37
B8 Storage	7,200qm	15	8	23
E Commercial, Business and Services - Business	5,200sqm	35	11	46
E Commercial, Business and Service – Assembly and Leisure	3,400sqm	Site specific assessment based on travel plan and needs		
F2 Community Hall	1,200sqm	12	12	24
C1 Hotel	80 Beds	10		
Healthcare	1,500sqm	15	3	18
Creche	1,100sqm	11	5	16

5 Car Parking

Introduction

5.1 It is anticipated that the Proposed Development will be delivered over an approximate 15-year horizon.

5.2 As has been the case over recent years, it is widely accepted that the use of the car and associated parking requirements will continue to change drastically within this timeframe.

5.3 In the UK there has been a significant shift in the driving behaviour of younger generations, influenced by economic, social, and environmental factors. The percentage of young people holding driving licenses has significantly decreased. In 1992-94, 48% of 17-20 year-olds and 75% of 21-29 year-olds had a driving license. In 2024 this has dropped to 29% and 63%. As such fewer young adults have access to a car in their household compared to previous generations.

5.4 Whilst car ownership and car use changes are expected, these will take a number of forms, with both behavioural changes towards car sharing and use of on-demand services, and technological advances including more electric vehicles, future autonomation and Mobility-as-a-Service (MaaS). The precise nature of some of these changes is less certain.

5.5 Accordingly, rather than applying a technology-led response at this stage, it is imperative to ensure that minimum car parking requirements are applied, whilst ensuring the urban design is futureproofed and flexible in its ability to adapt to changes over time.

Residential Car Parking

West Sussex County Council (WSCC) Standards

5.6 The WSCC Guidance on Parking at New Developments (2020) has been designed to ensure that sufficient parking is provided to meet the needs of the development while maintaining highway network operations, protecting surrounding communities and pursuing opportunities to encourage use of sustainable modes of transport.

5.7 Areas across the County are divided into “Parking Behaviour Zones”, based on the location and connectivity of the area. West of Ifield, although sitting on the edge of the Crawley map, is considered to best reflect PBZ 3 which is attributed to the existing Ifield, Gossops Green, Bewbush and Broadfield North wards.

5.8 The expected parking demand per dwelling (based on the WSCC guidance) for each PBZ is presented in **Table 5.1**.

Table 5.1: WSCC Residential Parking Demand

Residential Parking Demand (spaces per dwelling)						
No. of Bedrooms	**No. of Habitable Rooms**	**Parking Behaviour Zone**				
		1	**2**	**3**	**4**	**5**
1	1-3	1.5	1.4	0.9	0.9	0.6
2	4	1.7	1.7	1.3	1.1	1.1
3	5-6	2.2	2.1	1.8	1.7	1.6
4+	7+	2.7	2.7	2.5	2.2	2.2

5.9 There is however an acceptance within the WSCC guidance that the ratios above can be applied flexibly to reflect development aspirations for sustainable travel:

"To meet with current and emerging guidance on the promotion of sustainable travel modes and choices, consideration could also be given to reducing the expected level of parking demand by 10%. This is based on the Department for Transport's 'Smarter Choices' research that shows reductions in traffic movements can be achieved by up to 10 to 30% where a range of travel choices are available through provision of travel plans, public transport contributions, and other sustainable travel initiatives."

5.10 This is also the focus of the Crawley Transport Study (May 2021) which has an emphasis on identifying mitigation which is focussing on sustainable transport. *"Increasing investment in more sustainable means of travel, rather than highway infrastructure, is likely to encourage use of sustainable modes and reduce dependency on travel by car. Conversely, increasing capacity in highway will only make car travel more attractive, countering any investment in active travel and public transport*".

5.11 Consideration has also been given to the Crawley Densification Study which has been prepared as part of the Crawley Local Plan evidence base. Whilst this predominantly considers how new compact forms of development could be considered within the existing built-up area boundary, the foundational principles for successful compact form with regards to movement and car parking are equally applicable.

5.12 This includes 5-8 minute access to sustainable transport infrastructure and shops which are key principles of the well-connected Site masterplan. When coupled with high quality cycling infrastructure, car clubs, micro-mobility, and a good range of services and amenities, all of which are to be delivered early, there is a recognition that this reduces the desire for car ownership.

5.13 In line with the transport and movement principles for the Proposed Development and strategy for non-car-based trips, it is considered that a 10% reduction should be the starting point for car parking provision at the development. In addition, for Reserved Matters applications for development plots, a reduction of up to 30% is considered an achievable aspiration to further reduce car dominance, and parking design will provide flexibility to accommodate a further decrease in demand. A 10% and 30% reduction to PBZ 3 parking demand respectively provides the ratios set out in **Table 5.2**.

Table 5.2: PBZ 3 Reduction

No. of Bedrooms	No. of Habitable Rooms	PBZ 3 Demand	10% Reduction	30% Reduction
1	1-3	0.9	0.8	0.6
2	4	1.3	1.2	0.9
3	5-6	1.8	1.6	1.3
4+	7+	2.5	2.3	1.8

WoI Parking Demand

Interim Parking Demand

5.14 Based on the WSCC guidance, a 10% reduction to the PBZ 3 car parking ratios is considered appropriate from the outset. In accordance with an indicative masterplan unit mix for 3,000 homes, this equates to the following parking provision as shown in **Table 5.3**.

Table 5.3: WoI Interim Parking Provision

No. of Bedrooms	Number of Units	Parking Standard	Total Spaces
1	450	0.8	360
2	886	1.2	1,063
3	1,071	1.6	1,714
4+	593	2.3	1,364
Total	**3,000**	-	**4,501**

5.15 Overall, the provision set out in Table 8.4 equates to an average of 1.5 spaces per dwelling. This is similar with comparator developments seeking to reduce car use including Elmsbrook (Bicester Garden Town) in Oxfordshire, Poundbury in Dorchester and Northstowe in Cambridgeshire, all of which provide an average of 1.5 spaces per dwelling.

5.16 A high proportion of these spaces will be unallocated to meet visitor demand. The WSCC guidance stipulates that *"no special provision should be made for visitors where at least half of the parking provision associated with the development is unallocated"*.

5.17 Moreover, a high proportion of unallocated spaces from the outset will provide maximum flexibility to repurpose parking over time as demand decrease as anticipated. Whilst the standards set out above represent an average target across the entire development, there is an acknowledgement that some locations will be more accessible than others (e.g. close to bus stops and neighbourhood centre) where lower ratios will apply, including some car-free development area. Similarly, higher standards may apply to larger family units within less accessible areas of the masterplan. As each Reserved Matters application comes forward, the parking levels will be determined on a plot by plot basis through consideration of the policies at the time, the latest Travel Plan monitoring and any enhancements in technology etc.

Legacy Parking Provision

5.18 As suggested above, further reductions to the parking demand are considered achievable, both as a result of the sustainable travel opportunities to be provided, but also given the projected future reductions in car ownership resulting from the onset of demand responsive autonomous vehicles and other technologies.

5.19 It is considered wholly achievable that future demand at West of Ifield could reduce by 30% from current PBZ 3 demand. These legacy ratios have been reapplied to the indicative masterplan unit mix for 3,000 homes which equates to the following parking provision shown in **Table 5.4**.

Table 5.4: WoI Legacy Parking Provision

No. of Bedrooms	Number of Units	Parking Standard	Total Spaces
1	450	0.6	270
2	886	0.9	797
3	1,071	1.3	1,392
4+	593	1.8	1,067
Total	**3,000**	-	**3,527**

5.20 The legacy ratios would result in a reduction of 974 (22%) parking spaces when compared to the interim provision. Overall, this would equate to an average of 1.18 spaces per dwelling.

5.21 Whilst the proposed masterplan design allows for flexibility to physically repurpose car parking retrospectively, it is also envisaged that the planning process would serve as a mechanism to apply for reduced car parking ratios over time. Subsequent reserved matters applications (RMAs) and delivery partners would draw on survey evidence from car parking uptake within earlier plots or phases to enable more efficient use of space and designs which are not inhibited by unnecessary parking.

Car Parking Layout

Unallocated Parking

5.22 Unallocated spaces are those which can be generally used by anyone. Unlike allocated spaces they are not owned by or allocated to householders and so provide more flexibility, particularly for repurposing. Unallocated spaces will be owned by the Developer / Management Company. A combination of the following unallocated parking arrangements is being considered within the masterplan.

Parking Courts and Grouped Parking

5.23 Parking courts can be controlled by design with controlled access or ANPR technology, or by a third party such as a management company. This ensures, that whilst not being allocated to a specific property, they can be assigned to particular groups of houses or flats. As parking demand decrease, there are opportunities to convert parking courts and grouped on-plot parking areas for other uses (above and beyond the level planned for and required by policy) such as multi-use games areas, shared garden spaces for resident amenity or future development.

5.24 An example of this type of grouped parking is present at the Marmalade Lane development in Cambridge, as shown in **Figure 5.1**. Just one vehicle crossover is provided to a plot of 42 homes in this co-housing, community led scheme. This allows the parking to be separated from the pedestrian spaces, creating a safer environment which prioritises active travel over car use.

Figure 5.1: Marmalade Lane, Cambridge – Grouped Parking

On-Street Public Highway

5.25 These are the only spaces that will be maintained by WSCC. Parallel parking is considered most appropriate, particularly on higher priority routes manage traffic flow but also provide flexibility for future pick-up and drop-off (PUDO) with a move towards greater sharing opportunities and autonomation, as well as servicing opportunities. These also provide the greatest flexibility for future repurposing. Perpendicular parking can be considered in neighbourhood areas on lower priority routes.

5.26 On-street spaces can generally not be allocated to specific residents. Whilst these spaces can be controlled by traffic regulation orders or enforcement, the emerging design of the street hierarchy and housing layouts will create effective self-controlling arrangements to reduce the need for such management.

5.27 Phase 1 of the Barton Park development on the outskirts of Oxford provides an example of how a high proportion of unallocated and off-plot car parking is being provided to allow for future flexibility of car parking, as shown in **Figure 5.2**. Over 40% of car parking will be unallocated using the varying arrangements as described above.

Figure 5.2: Barton Park, Oxford – Flexible Car Parking Strategy

Car Club Bays

5.28 The proposed reductions to WSCC parking standards will be supported by a comprehensive car club to reduce the need for car ownership.

5.29 CoMo produce an annual survey of car clubs at a nation-wide level, which contains a wealth of evidence of their effectiveness. The 2019 survey revealed that 63% of new members owned at least one car before joining a car club, falling to 54% afterwards. The latest 2023 survey identified that 69% of members said that their household does not have access to a car. When asked about changes in car ownership, 22% of respondents stated that the number of cars in their household had decreased since joining the car club. This includes 2% of respondents who said that the number of cars in their household decreased by more than one car. The study also identified that in 2023, each car club vehicle in the UK replaced between 14 and 32 private cars, freeing up public space that is currently redundantly used for car parking. Car clubs also help promote other sustainable modes of travel, with the report finding:

- 35% of car club members were using a bicycle at least once a week (compared to 14% of English average)
- 88% of car club members were walking for 20 minutes or more at least once a week (compared to 78% of English average
- 48% of car club members were using a bus at least once a week (in London 62%, outside London 39%), compared national average in England of 20%
- 48% were using a train or tram at least once a week (in London 69%, outside London 31%), compared national average in England of 8%

5.30 Other operators suggest that one indicator to the long-term success of a car club is when there are 150-300 units per vehicle. Accordingly, up to 20 car club bays will be provided across the masterplan.

Precedents

5.31 In addition to those schemes identified above, other recent development consents have included a similar parking strategy which recognises and a facilitates reduced car ownership over time.

5.32 The parking strategy for the "Brabazon" Filton Airfield development in South Gloucestershire (LPA Ref: PT14/3867/O) provides parking in line with South Gloucestershire Council parking standards but recognises the build-up of sustainable travel interventions over time which will reduce the use and ownership of private cars. It also takes a flexible approach so that much of the parking stock can be adapted to meet changes in car ownership and the electrification of the UK vehicle fleet.

5.33 A subsequent Reserved Matters (LPA Ref: P20/10471/RM), accompanied by a parking technical note, was approved for the first residential parcel (302 dwellings) with levels of parking below South Gloucestershire adopted parking standards. Future phases are expected to reduce parking provision further recognising the good access to an array of sustainable travel options and development within walking distance of a large number of services, facilities and employment – similar to the level of provision afforded to future West of Ifield residents.

Non-Residential Car Parking

5.34 The WSCC Guidance on Parking at New Developments (2020) contains initial guidance on the quantum of non-residential car parking to be provided by land use but acknowledges that a Site-specific assessment is more appropriate to "balance operational needs, space requirements, efficient use of land and cost attributed to providing parking and where relevant, attracting/retaining staff".

5.35 The WSCC guidance has been compared to other local and comparator authority parking standards as a reference to deriving appropriate ratios for the Site, as shown in **Table 5.5**.

Table 5.5: Non-Residential Parking Ratio Comparison

Non-Residential Parking Demand		Other Local and Comparator Parking Standards			
Use Class	**WSCC Guidance**	**South Cambridgeshire**	**East Sussex**	**East Hampshire**	**Surrey**
A1 Food	1 space per 14m²	50m² up to 1,400m², 18m² thereafter	18m²	14m²	14m²
A1 Non-food		50m²	30m²	20m²	30m²
A2 Financial and Professional Services	1 space per 30m²	40m²	30m²	30m²	30m²
A3 Restaurant and Café	1 space per 5m² of public area and 2 spaces per bar	20m²	5m²	5m²	6m²
A4 Drinking Establishments					
A5 Hot Food Takeaways			5m²	5m²	6m²
B1 Business	1 space per 30m², up to threshold of 500m² in less accessible areas	40m²	30m²	30m²	30m² to 100m²
B2 General Industrial	1 space per 40m²	40m²	50m²	45m²	30m²
B8 Storage	1 space per 100m²	100m²	100m²	100m²	100m²
D1 Non-Residential Institutions	Site specific assessment based on travel plan and needs				
D2 Assembly & Leisure	1 space per 22m²	20m²		10m²	

5.36 As set out in the accompanying Trip Generation and Scenario Planning Scoping Note (**Appendix B**), a high level of trip internalisation is forecast, facilitated by active travel opportunities to a good mix of services and amenities, and working towards the draft Local Plan aspiration to provide 1:1 homes to jobs. Non-residential uses will also be easily accessible to non-West of Ifield residents given its proximity to local neighbourhoods, all of which will be easily accessible by walking and cycling routes and high-quality public transport.

5.37 Accordingly, it is appropriate to reduce the car parking requirements from those set out above. Similar to the approach to residential car parking, 'interim' and 'legacy' ratios have been established, the former which establishes a reduced baseline requirement and the latter which facilitates further reductions resulting from the sustainable travel opportunities to be provided but also given the projected future reductions in car ownership resulting from the onset of demand responsive autonomous vehicles and other technologies.

5.38 The proposed 'interim' and 'legacy' non-residential car parking ratios for West of Ifield are set out in **Table 5.6**.

Table 5.6: WoI Non-Residential Parking Provision

Non-Residential Parking Demand		West of Ifield Targets	
Use Class	**WSCC Guidance**	**Interim Ratios**	**Legacy Ratios**
E Commercial, Business and Services – Shops and Retail	1 space per 14m2	1 space per 25m2	1 space per 40m2
B2 General Industrial	1 space per 40m^2	1 space per 50 m^2	1 space per 60 m^2
B8 Storage	1 space per 100m^2	1 space per 130 m^2	1 space per 150 m^2
E Commercial, Business and Services - Business	1 space per 30m2	1 space per 40m2	1 space per 50m2
F1 Non-Residential Institutions	Site specific assessment based on travel plan and needs		
E Commercial, Business and Service – Assembly and Leisure	1 space per 22m2	1 space per 25m2	1 space per 30m2
F2 Community Hall	1 space per 14sqm	1 space per 35m2	1 space per 50m2
C1 Hotel	1 space per bedroom	1 space per 0.9 ratio bedroom	1 space per 0.8 ratio bedroom
Healthcare	1 per 18sqm	1 space per 30sqm	1 space per 40sqm
Creche	1 per 18sqm	1 space per 30sqm	1 space per 40sqm

Note: no parking standards are provided for the Healthcare Centre and Creche land uses. Therefore, a reasonable assumption has been made for a parking ratio to be provided, based on a blend of the maximum and minimum thresholds of standards for the other non-residential land uses.

5.39 Given the anticipated build out period, and the expected changes in car ownership over the build period, it is expected that the legacy parking rates will be introduced in line with changes in parking standards and demand for parking spaces. The exact dates and tiggers will be determined through the monitor and manage monitoring which will be undertaken as part of understanding how vehicular trip rates respond to changes in modal share.

5.40 As with residential parking, non-residential parking will be provided as a high proportion of unallocated parking to facilitate future reductions in line with the legacy ratio targets, or via leasehold arrangements for short durations e.g. 5 years to enable that repurposing as necessary. Whilst the above provide a useful reference point, further detailed plot testing to ascertain the appropriate level of car parking at specific locations will be carried out with reference to the development's specific land use, associated trip rates, mode shares and forecast job projections. The Applicant will consider whether in some locations, limited shared parking between residential and commercial uses could be advantageous, but this will be considered on a plot-by-plot basis.

5.41 No specific parking standards are currently provided for the Primary and Secondary School land uses. As such, no definitive parking provision can be advised for either land use at this stage. Site specific parking standards for staff associated with both school types will be determined by WSCC educational team. No parking will be provided for parents.

5.42 See below in **Table 5.7** a summary of the proposed floorspace for each land use and associated required number of parking spaces.

Table 5.7: Non-Residential Parking Spaces

Land Use	Floorspace/Units	Non-Residential Parking Demand	West of Ifield Targets	
Use Class		WSCC Guidance	Interim Ratios	Legacy Ratios
E Commercial, Business and Services – Shops and Retail	28,930sqm	964	723	579
B2 General Industrial	5,200sqm	130	104	87
B8 Storage	7,200qm	72	56	48
E Commercial, Business and Services - Business	5,200sqm	371	208	130
E Commercial, Business and Service – Assembly and Leisure	3,400sqm	155	136	113
F2 Community Hall	1,200sqm	86	34	24
C1 Hotel	80 Beds	80	72	64
Healthcare	1,500sqm	83	50	38
Creche	1,100sqm	61	37	28

5.43 As set out above, the Proposed Development will have two sets of standards. The interim standard is to be applied for the first Reserved Matters Application (RMA). Subsequent RMAs would be reviewed with Travel Plan data and Local Policy to ascertain if the most suitable level is interim, legacy or something in between.

Electric Vehicle Parking Provision

5.44 Electric Vehicle charging points will be provided in line with existing Building Regulations, or any subsequent standards relevant at the time of a reserve matters application. IN terms of current requirements, this is equivalent to

- Every residential dwelling should have access to a charger
- For non-residential / non mixed use – there will need to be at least one space per building + 20% with passive provision (i.e. cable routing provided).
- Within mixed use areas it is a combination of both.

5.45 It is assumed that residential charging would generally be 7kw chargers, while non-residential could be up to 22kw.

5.46 There would also be fast charging facilities provided at strategic places through the development, such as at mobility hubs, car club spaces and within the local centre.

Servicing, Refuse and Fire Tender Access

5.47 The masterplan layout accommodates servicing, refuse and fire tender access throughout. Within the neighbourhood centre, careful thought has been given to the layout of the streets and building access points to minimise the impact on pedestrians and cyclists in particular.

5.48 Each RMA will have a detailed delivery and servicing plan that will aim to minimise the number and size of vehicle movements. The provision of a wide range of local amenities including food store will help to reduce the deliveries to individual properties across the development. This, along with a comprehensive walking and cycling network and storage for cargo bikes will help to improve the number of trips being undertaken by non-car modes. Clustering daily uses together will help to ensure that the services are passed regularly and that top up shops are easily achievable rather than needing to undertake a larger weekly shop for example. Furthermore, the mobility hubs will provide parcel lockers to focus personal deliveries into a single location, that people will then be able to use to collect parcels and walk/cycle home with. This will help to reduce the servicing vehicles on residential streets.

5.49 Each RMA will also include tracking plots showing how all buildings are accessible by fire tenders, in line with Building Regulations.

6 Public Transport Strategy

Introduction

6.1 This Chapter sets out the proposed public transport strategy, a key part of delivering a sustainable development that provides choice of modes for short and longer distances.

Bus Strategy

6.2 Travel by bus is a key element of the transport strategy. Recognising the proximity of key employment areas, it is anticipated that travel by bus will be able to replace journeys by private car by offering a faster, more reliable journey time alternative. The secondary school will also be served by buses, reducing the need for parents to drop children at school. The proposed bus strategy offers a phased approach, providing a good level of service initially (15 min frequency) to instil sustainable travel behaviours, but recognising the gradual build-up in patronage and the requirement for services to become commercially viable and achieving a 6-10 min frequency 'Fastway' service thereafter. It also recognises the future potential for strategic development beyond West of Ifield and is futureproofed to allow for a Fastway public transport corridor along the alignment of the Crawley Western Link both east and west of the development.

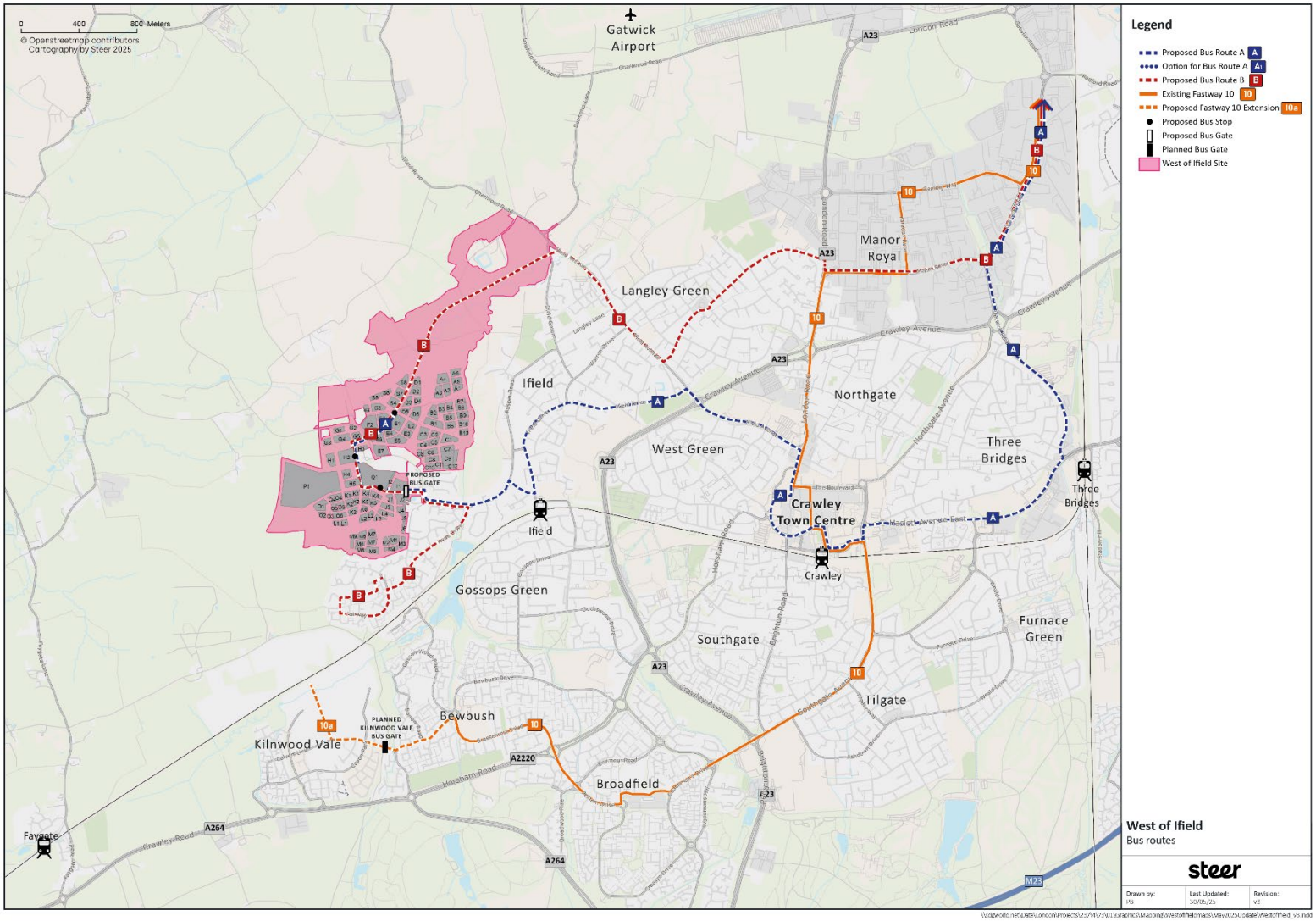
6.3 The bus strategy has been developed in discussion with Metrobus, the main bus operator within the Crawley area and the most likely provider of new bus services to the Site, and input from WSCC, HDC and CBC. The strategy comprises two "Fastway" services which will serve the Site and provide connections to the wider area.

6.4 Metrobus currently operates a Fastway service along three routes. Fastway has been specially designed to travel within dedicated public transport right of ways to avoid congestion hot-spots, thereby ensuring faster travel speeds and lower journey times than private cars, thus providing car competitive public transport alternatives. Satellite-based technology displays real time information to passengers, tracks the location of vehicles to help maintain schedules and gives priority at traffic lights. The environmentally friendly, low-emission buses also have low-floor access for disabled passengers and pushchairs.

6.5 Bus patronage in Crawley increased by 160% between 2003 and 2013. This increase was attributed to Metrobus and the introduction of Fastway services to the area. The West of Ifield bus strategy seeks to integrate Fastway principles to ensure new routes are provided which are quicker than travelling by car and provide a 'turn up and go' level of service which makes travel by bus the natural choice.

6.6 In accordance with Fastway and Bus Rapid Transit (BRT) principles, routes will provide segregated bus infrastructure where necessary to limit interaction with other vehicles and possible congestion issues. Three high quality bus stops as part of integrated mobility hubs are proposed within the development. These are located to ensure that most of development is within 400m of a bus stop, whilst ensuring that the number of stops is limited to enhance bus journey times through the development. The proposed bus routes and stops are set out in **Figure 6.1** and summarised below.

Figure 6.1: Proposed Bus Routes

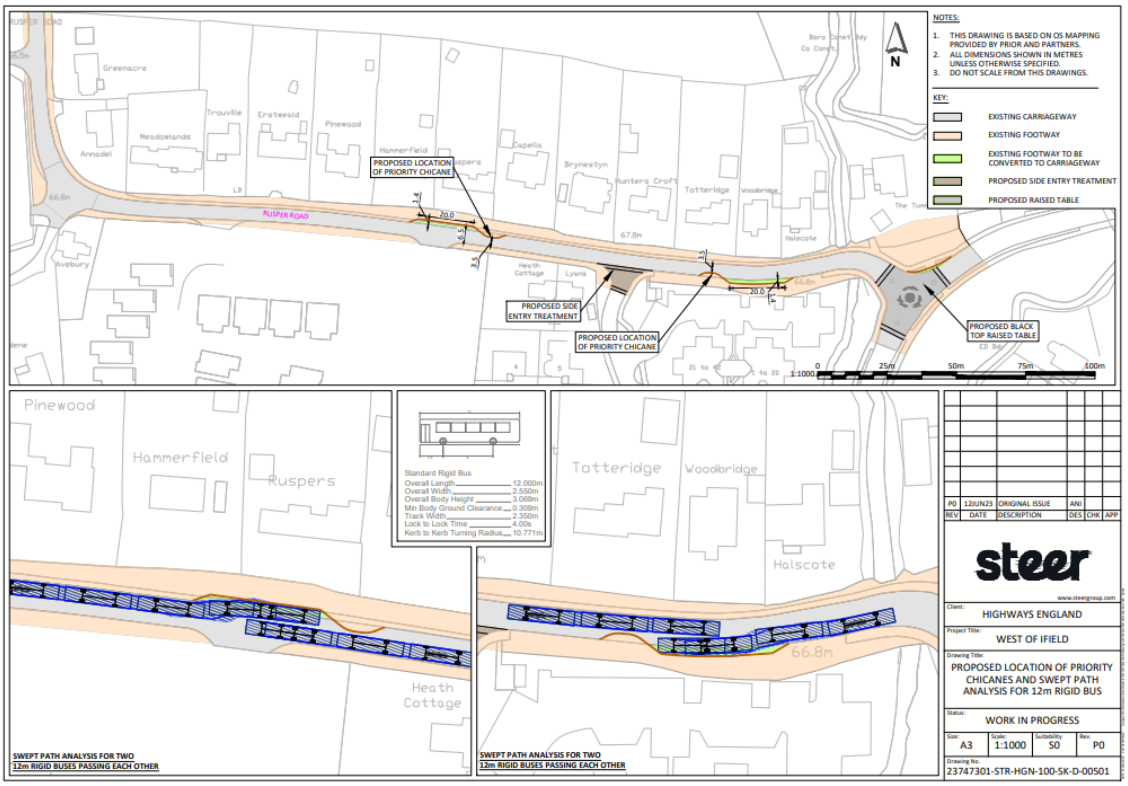


Route A

6.7 Proposed Route A has a terminus within the development and utilises a proposed bus gate at the Rusper Road entrance to separate buses from general development traffic and enhance the attractiveness of the direct route to Crawley over a more elongated route by private vehicles along the first phase of the Crawley Western Link.

6.8 Proposals to stop up Rusper Road to through traffic will result in the section south of the Crawley Western Link and Site access becoming 'access only' with exceptions for buses and cyclists. This measure is intended to enhance cyclist safety and reduce delays for bus services. Following discussions with WSCC, CBC and HDC in April 2023, it was agreed that horizontal chicanes and passing bays will be introduced as shown in **Figure 6.2**. These improvements are expected to be delivered directly by the Applicant and secured through a S106 and/or S278 agreement. All proposed works are located on highway land, ensuring that the improvements can be implemented without land acquisition constraints. Funding for these works will be secured through s106 negotiations . The design also includes raised tables at side street junctions to improve pedestrian accessibility.

Figure 6.2: Rusper Road improvements



6.9 Recent improvements at the Ifield Drive junction with Ifield Avenue, which include signalisation of the junction and widening of the northbound approach provide a dedicated left turn lane, which will help with the bus journey times. Similarly, a local widening scheme is identified by CBC for the A23 Ifield Roundabout to mitigate the impacts of future growth scenarios (even without West of Ifield) assessed within the Crawley Transport Study (May 2021). These improvements would address existing and future capacity issues (including with West of Ifield) to the benefit of bus journey times along Route A.

6.10 In summary, the existing Ifield Drive/Ifield Avenue route towards Crawley provides a suitable corridor for a high-frequency bus service. Notwithstanding this, the provision of dedicated bus

infrastructure at the locations identified above could improve bus reliance and journey times, for both existing and future users.

Route B

6.11 Proposed Route B seeks to provide a direct connection from West of Ifield to the Manor Royal employment area and Gatwick Airport, which are key employment centres. To the north, it would take advantage of the first phase of the Crawley Western Link which will provide dedicated bus lanes in each direction, before continuing via Ifield Avenue and Stagelands through Langley Green to Manor Royal.

6.12 To the south, the route would continue via the Rusper Road bus gate and terminate at the Ifield West Community Centre. This route would provide significant benefits for future residents at West of Ifield, but also the existing Ifield West community who currently have just one service (Route 2) to Crawley Town Centre at a 10-minute frequency.

Fastway 10

6.13 The Fastway 10, which provides a bus every 8 minutes between Bewbush, Crawley Town Centre, Manor Royal and Gatwick will be extended to the Kilnwood Vale development via a new bus gate on Sullivan Drive. There are currently no proposals to extend the Fastway 10 beyond the 'station square' area within Kilnwood Vale and extending this route any further north into the existing Ifield West community and onwards to West of Ifield would be to the detriment of reliability and journey times on the existing service and would generate limited additional patronage.

6.14 Whilst the Fastway 10 service is not relied upon to provide the level of bus service required at West of Ifield, the benefits of a future extension are acknowledged and should be considered as part of any future expansion in the wider West Crawley Area. Nonetheless, the interchange opportunities which the Fastway 10 service provides at Crawley Town Centre would be attractive for connection bus trips between proposed Route A and the Fastway 10 to provide enhanced journey times to Manor Royal.

Bus Stops and Mobility Hubs

6.15 Consideration has been given to the location of bus stops within the proposed masterplan, as shown in Figure 6-1. The provision of three bus stops, located on the primary arterial street network are proposed to reduce the need for buses to traverse more complex routes within the masterplan, but are also strategically located to ensure that around 90% of the development falls within a 400m (approx. 5-minute walk) distance of a bus stop and high frequency service.

6.16 High quality bus stops will be provided drawing on the emerging Metrobus trials within Crawley to incorporate 'superhub' type bus stops which provide enhanced seating and shelters, real time bus information, integrated ticketing and cycle stands. These will form the mobility hubs within the masterplan which also have the potential to incorporate shared mobility, car clubs and delivery lockers.

Bus Incentives

6.17 High frequency bus services will be available from the day residents move into the development. Bus incentives will be made available to all new residents as part of the Residential Travel Plan ("RTP") (As discussed later). Measures which will be explored include offering sustainable travel vouchers, to provide reduced travel costs for a 2-3 month trial period to provide enough time to establish long lasting sustainable habits. This type of incentive has been very successful at

Chelmsford Garden Village comprising the Beaulieu and Channels developments delivering 9,850 homes, whereby 800 free 'taster' bus passes were distributed to 341 households as part of the first phase. As a result of this early incentive, more than half the households subsequently purchased a bus season ticket of some form.

6.18 These types of measures, which will be set out within the outline RTP supporting the planning application, along with the other sustainable transport measures outlined within this strategy, will further encourage permanent modal shift away from private vehicles and towards more sustainable modes of travel. The outline RTP will establish timescales for the implementation of specific measures and subsequent updates to the RTP accompanying each RMA for a particular phase(s) will monitor the success of specific measures and refine future targets accordingly.

Local Policy

6.19 The Crawley Infrastructure Plan (2023) states that there is potential for increasing frequency of bus services to meet additional demand generated by new development. Further bus priority measures could be provided and would help to deliver very high levels of bus use and corresponding reductions in car use, as achieved by the introduction of Fastway. A new bus lane is planned for Manor Royal as well as a new bus station associated with the Station Gateway project.

Bus Frequency & Phasing

6.20 To achieve the targeted bus mode shares from the outset, a high frequency bus route will be provided to support the development built out and prior to any residential occupation. This would be subsidised by Homes England at the outset. Route A will provide connections to the key employment areas of Crawley Town Centre, Manor Royal and Gatwick Airport, and Ifield, Crawley and Three Bridges rail stations at an initial 15-minute frequency, moving to a 10- min frequency as the development is built out.

6.21 It is intended that Route B would be introduced as a commercially viable service requiring zero net subsidy. The route (as currently planned) extends to the existing Ifield West community which will improve connectivity for existing residents and aid the viability of the service. Whilst the introduction of the route could be phased with a reduced frequency initially, it is anticipated that a 10-minute frequency route would become commercially operable prior to full occupation.

6.22 The likely external trip demand for buses is set out in **Table 6.1**.

Table 6.1: West of Ifield – Bus Trip Generation Forecasts

	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Bus Trips	297	276	573	418	346	765

6.23 As shown in the table above, once the development is fully built out there would be 418 arrivals during the PM peak hour (busiest direction flow). Based upon an average loading of 40 passengers per bus, approximately 6 buses (one-way) per route would be required during the PM peak to accommodate demand. This supports the bus strategy outlined above with 6 buses (10-minute headway) on both routes providing 12 buses per hour arriving at West of Ifield.

6.24 Bus use will be incentivised and encouraged, both through specific measures within the outline Residential Travel Plan and through good design which improves the attractiveness of bus use over private vehicles.

6.25 Given the timescale of the buildout and to ensure flexibility in providing new services which are delivered to complement existing services and any changes which may occur to existing services, it is proposed that the bus strategy would be secured through a Level of Service agreement included within the S106 agreement. This LoS agreement will set out minimum requirements for the service and key destinations which should be served. Funding for bus services by Homes England will be subject to approval of the Full Business Case by HM Treasury. An indicative phasing strategy is provided in **Appendix J.**

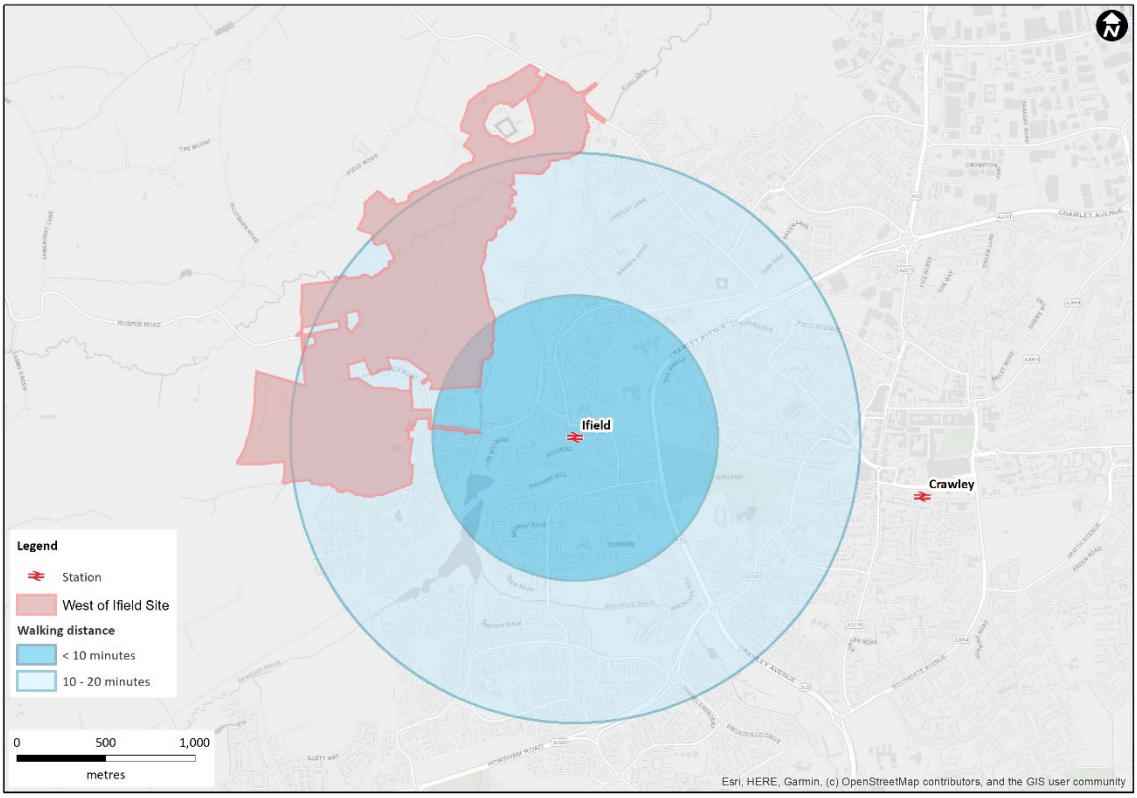
Rail Strategy

Ifield Rail Station

6.26 Ifield station currently has a regular service at all times of day. During the morning peak, up to three trains per hour are provided towards London via Crawley, Three Bridges and Gatwick Airport, with two trains per hour towards Horsham. During the evening peak, the same level of service is provided in the opposite direction. During off-peak periods, two trains per hour typically serve Ifield in each direction.

6.27 **Figure 6.3** illustrates the walk catchment (800m [10 mins] and 1.6km [20 mins]) from Ifield station in relation to the West of Ifield area. Ifield station provides an opportunity for future residents of West of Ifield to travel by rail. It is of note that the parts of the development which fall outside of the catchment area are not areas of residential development.

Figure 6.3: Ifield Rail Station Walk Catchment



6.28 An indicative catchment analysis considering existing residential and workplace populations within 800m (10-minute walk) and 1.6km (20-minute walk) has been carried out. The potential population and employment numbers for West of Ifield (assuming 3,000 homes and 1,500 jobs)

have then been added to the analysis to consider the number of additional people within West of Ifield who would fall within the catchments above. The results are presented in **Table 6.2**.

Table 6.2: Ifield Rail Station Forecast Catchment Population

Population		Ifield Station	
		800m (10 mins)	1.6km (20 mins)
Residential	Existing	8,000	23,000
	Proposed uplift*	600	7, 350
	Total	**8,600**	**30,350**
	% Change	**+8%**	**+32%**
Workplace	Existing	4,200	10,800
	Proposed uplift*	300	1,500
	Total	**4,500**	**12,300**
	% Change	**+7%**	**+14%**
Combined Population	Existing	12,200	33,800
	Proposed uplift*	900	7,100
	Total	**13,100**	**40,900**
	% Change	**+7%**	**+21%**

**Residential density based on 2.45 residents per household (the average for HDC and CBC). Areas of ancient woodland and floodplain were excluded, and density distributed evenly across developable area.*

6.29 Ifield station would benefit from a combined population and employment uplift of over 7,000 people within a 20-minute walk.

6.30 Connections to Ifield station via a new dedicated pedestrian/cycle link across Ifield Meadows and via improvements to Rusper Road through stopping up, widening and junction entry treatments are being prioritised, and will be secured via a Section 106 Agreement. A Feasibility Study has been produced to identify the improvements to Ifield Station and these include:

- Works to enhance the station entrance to create a better sense of place
- Enhance accessibility
- Provide more cycle parking and
- Enhance platform waiting areas on the London bound side.

Crawley Local Plan Policy ST3: Improving Rail Stations

6.31 "Any improvements or developments at or within the vicinity of railway stations will be expected to enhance the specific roles of the individual stations, the sustainable access to individual stations, and at Ifield Station, strengthen its role as a local suburban station meeting the needs of current and future residents in the west of the town."

6.32 The Applicant is committed to securing improved pedestrian/cycle connectivity to Ifield station as set out above and will work with Govia, Network Rail (or any future body, such as GB Rail) and CBC to identify for opportunities enhancing the cycle parking and station access.

6.33 The Applicant has appointed specialist consultants, in collaboration with Govia Thameslink, to explore opportunities to enhance Ifield Station . The review focused on improving waiting areas, circulation, accessibility and access via sustainable travel modes. The work has concluded that there are feasible options to expand waiting shelters, install high quality cycle parking, and

improve the aesthetics of the station. These improvements aim to elevate the customer experience and ensure the station can accommodate increased patronage. Additionally, a series of localised pedestrian and cycle improvements have been identified, which would link into the Crawley LCWIP work. These enhancements are designed to support growing demand and the station more attractive and accessible for both new and existing users.

7 Travel Planning and Management

Introduction

7.1 An integral part of the proposals for WoI is an Umbrella Travel Plan (TP), which is included as a separate document as part of the Outline Planning Application submitted alongside this Transport Assessment.

7.2 This Chapter highlights some of the key areas of the Travel Plan, but the document should be read separately in full. The Applicant has set an ambitious transport strategy that aims to ensure that West of Ifield (WOI) is sustainable, flexible and inclusive. It will ensure that a range of sustainable travel options are available to all users of the Site and that by providing suitable infrastructure and support from the outset, 'good' habits can be established from day one. This approach is hoped to ensure that the development is sustainable, but also that existing neighbouring communities benefit from the enhancements and can become more sustainable too.

Travel Plan Context and Scope

7.3 The TP Proposed Development, which will be developed and managed by The Applicant. It is expected that as and when development parcels come forward, bespoke Travel Plans will be developed, which are tailored to the operator of that part of the development.

7.4 The document considers all aspects of travel behaviour to / from the residential and commercial elements of the Site, including travel by residents and staff, their visitors and residential / commercial delivery and servicing activity.

7.5 The overarching aim of the TP is to influence residents and staff to travel by active modes (walking and cycling) and public transport, wherever possible, in order to maximise benefits to public health and minimise the impacts of the Proposed Development. The TP measures proposed will also have benefits for the neighbouring community and support the Crawley Transport Strategy.

7.6 The TP includes proposed interim measures which will be developed further and updated once a Travel Plan Coordinator (TPC) has been appointed, the Proposed Development has been occupied and baseline surveys have been undertaken. The TPC's contact details will be provided to WSCC upon appointment and should contact WSCC following initial occupation of the Site.

7.7 A TPC will be appointed prior to occupation of residential who will work approximately 1 day per month and liaise directly with residents and commercial operators. The appointed TPC will work with WSCC, HDC and CBC, and any subsequent Residential Management Company (RMC) and Commercial Management Company (CMC) appointed by the Applicant to update the interim FTP targets within 6 months of initial occupation, following the completion of baseline travel surveys

Travel Plan Benefits

7.8 The TP is a 'living document' which, as such, will be actively promoted with occupiers, reviewed and updated over time.

7.9 It is hoped that the successful delivery of the TP will:

- improve accessibility of the Proposed Development for all users
- increase travel options to and from the Proposed Development and encourage the use of non-car modes such as walking, cycling and public transport
- improve the health and wellbeing of users through encouraging active travel and reducing air and noise pollution
- reduce the demand for parking
- help in meeting local and regional policy targets and objectives.

7.10 The Applicant recognises the value of sustainable travel, including deliveries and servicing and the importance of an effective travel plan

Travel Plan Objectives

7.11 The main objective of this TP is:

> "To minimise car use, reduce single occupancy car trips and maximise active travel and the use of public transport."

7.12 To support the realisation of this overarching objective, several sub-objectives have been set:

- To improve the health of residents and minimise impacts on the environment
- To ensure the Proposed Development is accessible to all users and that the needs of vulnerable groups, for example those with mobility problems, are met and respected
- To promote and encourage users to travel by sustainable modes including walking and cycling as an alternative to private car, taxi or public transport use
- To ensure maximum opportunities exist for collective travel, such as car sharing
- To increase awareness of the TP and its constituent measures
- To encourage the most efficient use of cars and a reduction in single occupancy car use
- To promote smarter working and living practices that reduce the need to travel overall or in the peak periods
- To improve the safety of persons travelling to and from the Proposed Development on foot or by cycle and provide relevant on-Site facilities
- To encourage the best use of taxis and private hire vehicles.
- To achieve behavioural adherence to the 20-minute neighbourhood from first occupation and through to the full occupation of the Proposed Development.

Targets

7.13 The results of the interim travel surveys will be used to form targets which can be measured against the achievement of the set objectives.

7.14 Once the baseline data is collected there will be a better understanding of what is achievable and the most suitable measures. Targets will then be developed and quantified in line with the following key targets:

- Identify a percentage increase in walking and cycling

- Ensure that all residents are aware of the TP and its objectives
- Identify a percentage decrease in servicing vehicles in peak periods
- To reduce the number of vehicle trips generated over a 12-hour period (Weekday 7am to 7pm) by the Site.
- To reduce the peak hour trip rate of the development to ensure there is no 'material impact' on the surrounding network.

7.15 The development will be designed to encourage walking and cycling from the outset, both within the neighbourhood and to surrounding communities. Enabling the use of new technologies such as electric bikes and other forms of micro-mobility alongside new and improved public transport infrastructure and car parking restraint will ensure that sustainable travel is achieved from the outset.

Travel Plan Management

7.16 Effective management of the TP, combined with clearly defined roles and responsibilities, is recognised as being fundamental to achieving the overarching objectives.

7.17 The TPC will implement and administer the TP on a part-time basis upon appointment, from the outset of the Proposed Development's first residential and commercial unit occupation. The TPC will likely be an independently appointed consultant. This is not a role that can be carried out by any Residential / Commercial Management Company who would manage and operate the Site on a day-to-day basis.

7.18 The TPC's responsibilities will include:

- Obtaining and maintaining commitment and support from residents, staff and visitors
- Implementing an effective marketing campaign of the TP and its specific measures
- TPC will facilitate regular meetings with other developers and operators within the area and externally (e.g. stakeholders, councils, public transport operators)
- Giving advice and information on transport-related subjects to residents, staff and visitors (prior to occupation as part of the sales pack but also once they've moved in / commercial unit occupation) and their visitors
- Setting up and facilitating the Steering Group meetings and attending Transport Forum meetings
- Coordinating the necessary data collection exercises and monitoring the programme of the TP.

7.19 The TPC contact details will be outlined as part of the individual TP's that will be conditioned as part of the S106 agreement.

7.20 A key part of ensuring collaborative working between the TPC and other stakeholders is through the Transport Forum meetings which will be held annually and could include residents, WSCC's Travel Planning Officer, car club operators, and representatives from neighbouring developments.

7.21 These meetings will enable users to provide feedback on the travel plan measures and events and discuss future transport initiatives.

Travel Plan Measures

7.22 Chapter 6 of the TP details possible measures that could be introduced to achieve the targets set. At this stage, some measures are proposed as interim as the TPC will need to develop and

prioritise measures which relate directly to the needs of the residents and staff after the baseline and interim travel surveys have been conducted.

Monitoring and Review

7.23 The Applicant will ensure suitable funding for the TP is provided for monitoring and review.

7.24 It is assumed that this sum of money will cover the costs for the monitoring and review of the TP in conjunction with WSCC. The Applicant will seek agreement with WSCC regarding how this sum of money can be best utilised to ensure the travel plan is most effective.

7.25 The interim surveys will be undertaken on an annual basis starting the occupation of the first residential dwelling up until the full completion of the development during the year construction period.

7.26 The development is expected to come forward in phases and as such parcel of land / development will come forward as discreet Reserve Matters Applications. It is envisaged that each RM application will come forward with a Travel Plan, which may or may not be linked to the master umbrella Travel Plan. Each travel plan would have to commit to monitoring for at least 5 years, or longer if the delivery phases was longer.

7.27 The surveys will be undertaken during the main operation hours of the Site on a single typical day during school term-time.

Review Measures

7.28 The TP will be reviewed regularly. The data gathered by the surveys will be analysed by the TPC and WSCC. Following the baseline survey, the targets will be reviewed and updated to reflect the actual mode share observed. These targets will then be reviewed against new surveys on an annual basis.

7.29 If the results of these surveys were to identify that any targets were not being met, a review of the outcomes will be discussed with the TPC, WSCC and residents. Following this process mitigation measures may be identified that will be implemented by the TPC. This may require reallocation of S106 funding from one measure to another to maximise the benefits of such funding and ensure that the most successful are well supported, whilst reducing those less successful.

Remedial Measures

7.30 Should the modal shift targets set out in the TP not be met, various remedial measures can be implemented to further encourage modal shift, which could include:

- Increasing the level of personalised travel planning on offer;
- Increasing the number of cycle parking spaces provided;
- Providing additional changing facilities (employment only);
- Considering bike hire schemes;
- Further promotion of on-Site car club and car sharing and
- Increasing the number of electric vehicle charging points on Site.

8 Trip Generation

Introduction

8.1 This section sets out the forecast multi-modal trip generation for the Proposed Development. This chapter should be read in conjunction with the Trip Generation Technical Note (dated 7th December 2021, see **Appendix B** (referenced earlier too) submitted during pre-application discussions with the local authorities. This technical note sets out the methodology for the trip generation assessment that has been agreed with the local authorities. There have been some amendments to the quantum of development and development uses that fall within the WoI Site since the submission of the technical note, however the methodology remains the same and is set out below. A summary of the Proposed Development quantum by land use is provided below in **Table 8.1**.

8.2 Three scenarios were presented in the Trip Generation Technical Note and are summarised below:

- **Scenario 1** – Based on CTM inputs/outputs for West of Ifield. Is considered to provide a robust assessment to determine the highest roadway capacity requirements for private vehicles. The CTM results suggest that physical mitigation is only required at the Ifield Roundabout for which CBC has identified a local junction widening mitigation scheme.
- **Scenario 2** – Represents a detailed and balanced assessment to forecast the trips which West of Ifield is likely to generate across all modes of transport. This considers the latest development mix assumptions associated with the emerging masterplan and refines the assumptions with regards to appropriate levels of trip containment, supported by the Transport Strategy and accompanying appendices. The methodology is based on the approach agreed with WSCC in the Transport Assessment supporting the Land at North Horsham planning consent (LPA ref: DC/16/1677).
- **Scenario 3** – Responds directly to WSCC, HDC and CBC requests to consider a more ambitious bus mode share to inform the infrastructure and service provision requirements. This also serves as a target to inform the production and on-going implementation of the outline Residential Travel Plan and accompanying measures and incentives to encourage bus use.

8.3 Following discussions with the local authority (WSCC) and for the purpose of the proposed development trip generation, one set of mode shares (except for food and non-food retail and secondary school use) will be used to assess the potential impacts of the development across all transport networks. The methodology detailed within Scenario 2 is replicated below.

8.4 To inform the trip generation assessment approach, the total people trip rates used in the Crawley Transport Study (on the basis that this is the most representative data for the development) have been adopted for each specific land use. Trip rates for schools, health centre, creche, and community centre have been derived separately from the TRICS database as these are not considered specifically within the Crawley Transport Study. As outlined in

Chapter 4, the following development quantum has been used to inform the trip generation assessment.

Table 8.1: Proposed Development Quantum by Land Use

Land Use	Land Use Class	Schedule	Floor Area / Units
Residential	C3	Dwellings	3,015 units (includes 15 gypsy traveller pitches)
Secondary School	F1	Forms of Entry	9 form entry
Primary School	F1	Forms of Entry	3 form entry
Office	E(g)	Floorspace (sqm)	28,930 sqm
Food Store Retail	E(a)	Floorspace (sqm)	5,200 sqm
Healthcare	E(e)	Floorspace (sqm)	1,500 sqm
Leisure	E(d)	Floorspace (sqm)	3,400 sqm
Community Centre	F2	Floorspace (sqm)	1,200 sqm
Creche	E(f)	Floorspace (sqm)	1,100 sqm
Hotel	C1	Bedrooms	80 beds

8.5 As agreed with WSCC, the approach to assessing the trip generation for West of Ifield follows the approach agreed with WSCC in the Transport Assessment supporting the Land at North Horsham planning consent (LPA ref: DC/16/1677). The trip rates, levels of internalisation and mode shares are adjusted from those used at Land at North Horsham to reflect the truly mixed-use nature of the development, providing a neighbourhood centre with food store, secondary school and primary school(s) and a commensurate ratio of homes to jobs to provide for residents' needs locally, whilst recognising its unique location with respect to key employment centres – all of which will be easily accessible by public transport and cycle routes.

8.6 No consideration has been made of the existing trip generation associated to the Ifield Golf Club, and therefore the assessment considers a robust worst-case assumption.

Residential

Trip Rates and Generation

8.7 Total person residential trip rates have been taken from the TRICS Sites used in the Crawley Transport Study. These are comparable with those used for Land at North Horsham as set out in **Table 8.2**.

Table 8.2: Residential Total Person Trip Rates and Generation

Residential Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Land at North Horsham Trip Rates	0.162	0.680	0.842	0.499	0.241	0.740
West of Ifield Trip Rates	0.171	0.667	0.838	0.623	0.272	0.895
West of Ifield Trips (up to 3,015 dwellings)	516	2,011	2,527	1,878	820	2,698

Trip Purpose

8.8 Total residential person trips have been considered by trip purpose, based on the Department for Transport (DfT) National Travel Survey (NTS) 2019 statistics, specifically table NTS0502, Trip Start Time by Trip Purpose (Monday to Friday only).

8.9 The NTS data incorporates all education types into one group. These have been separated into primary and secondary/further education using the following method. School pupil data has been taken from the Department for Education's (DfE) Statistical First Release, Schools, Pupils, and their Characteristics, June 2021. Table 7B of this report highlights the total number of pupils by type of school and local authority area at all schools in England. Data for West Sussex has been used to breakdown the education and escort education category trip purpose.

8.10 The trip purpose breakdown is summarised in **Table 8.3**.

Table 8.3: Peak Hour Trip Purpose

Purpose	AM Peak	PM Peak
Employment	22.9%	35.6%
Education Primary Secondary / Further	28.6% 17% 11.6%	3.0% 1.8% 1.2%
Escort Education Primary Secondary / Further	22.9% 13.6% 9.3%	2.2% 1.3% 0.9%
Retail	4.2%	12%
Other Personal Business and Escort	14.2%	20%
Visiting Friends/ Entertainment/ Sport	3.5%	19.7%
Holiday/ Day Trip/ Other	3.8%	7.6%

8.11 The trip purposes shown in Table 8-3 apply to two-way trips. However, it is considered that trip purpose will vary by arrivals and departures. Trip purposes, split by time and arrivals/departures, have been calculated based upon the data contained within Table 8-4 and Table 8-5, and the following assumptions:

- It has been assumed that there will be no residential person trips with an education purpose arriving at their home in the AM peak hour or departing from their home in the PM peak hour from the residential element of the development, as all trips with an education trip purpose are assumed to be school pupils travelling to and from school.
- To provide a robust assessment, it is assumed that all PM peak hour escort education trips are arrivals. These are assumed to be parents returning from work, off-Site, and picking their child up from afterschool clubs.

8.12 The directional trip purposes in each peak hour and resultant person trips for the residential element of the development are shown in **Table 8.4** and **Table 8.5**.

Table 8.4: AM Peak Hour Directional Trip Purposes

	%		Person Trips	
	Arrive	Depart	Arrive	Depart
Employment	32%	22.9%	178	496
Education Primary Secondary / Further	0% 0% 0%	28.6% 17% 11.6%	0 0 0	619 369 250
Escort Education Primary Secondary / Further	32% 19% 13%	22.9% 13.6% 9.3%	178 106 72	495 295 200
Retail	5.9%	4.2%	33	91
Other Personal Business and Escort	19.9%	14.2%	110	308
Visiting Friends/ Entertainment/ Sport	4.9%	3.5%	27	76
Holiday/ Day Trip/ Other	5.3%	3.8%	30	83

Table 8.5: PM Peak Hour Directional Trip Purposes

	%		Person Trips	
	Arrive	Depart	Arrive	Depart
Employment	35.5%	37.5%	720	331
Education Primary Secondary / Further	3% 1.8% 1.2%	0% 0% 0%	60 36 24	0 0 0
Escort Education Primary Secondary / Further	2.2% 1.3% 0.9%	0% 0% 0%	44 26 18	0 0 0
Retail	12%	12.7%	244	112
Other Personal Business and Escort	20%	21.1%	404	186
Visiting Friends/ Entertainment/ Sport	19.7%	20.8%	399	184
Holiday/ Day Trip/ Other	7.6%	8%	153	71

Employment

8.13 Employment uses for the WoI development have been split into office and industrial use classes.

8.14 Note that the trip generation assessment for the development use E(c) Financial Services is included within the total person office trip generation below, and as such a separate trip generation assessment has not been completed for this land use to avoid double counting trips.

Office - Trip Rates and Generation

8.15 Total person office trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of employment floorspace for West of Ifield, as shown in **Table 8.6**.

These account for all employment trips before considering internalisation which is considered in later sections.

Table 8.6: Employment Total Person Trip Rates and Generation (Office)

Employment Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per 100m^2)	1.697	0.141	1.838	0.143	1.61	1.753
West of Ifield Trips (up to 28,930m^2)	491	41	532	41	466	507

Secondary School

Trip Rates and Generation

8.16 As secondary school trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Education: Secondary School;
- Most recent 8 year period;
- 500 to 1,000 pupils;
- Suburban area, edge of town and neighbourhood centre only.

8.17 These criteria result in the selection of four Sites. The resulting trip rates and person trip generation are summarised in **Table 8.7**.

Table 8.7: Secondary School Total Person Trip Rates and Generation

Secondary School Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Trip Rate (per pupil)	0.78	0.093	0.873	0.044	0.04	0.084
Trips (1,200 pupils)	936	112	1,048	53	48	101

8.18 As set out later in the assessment, the residential trip rates will include trips to secondary schools and as such adjustments are made to eliminate double counting later.

Primary School

Trip Rates and Generation

8.19 A 3FE primary school and 1 early years' nursery and student support centre is proposed at the Site. This will primarily cater for children living within the development. Therefore, only staff trip generation has been considered for off-Site impact assessments, as all other trips will be internal to the development.

8.20 The school will generate staff trips during the peak hours. DfE data for three local Crawley primary schools of similar size to the proposed schools has been used to calculate the number of fulltime equivalent (FTE) staff that are likely to be employed at the proposed school. The schools assessed are Gossops Green Primary, Langley Green Primary and Waterfield Primary.

8.21 The number of FTE pupils at each of the selected schools and the number of FTE staff employed has been extracted from the DfE's 'Schools, pupils and their characteristics: June 2021 dataset. This has been used to calculate a staff per pupil ratio at each school. The average of these ratios results in each 11.5 pupils per staff, equating to 55 staff at each 630 pupil primary school (including 1 early year's nursery and student support centre).

8.22 For the purposes of this assessment, it is assumed that 75% of staff arrive and leave in the AM and PM peak hours, as some will arrive/leave at other times of the day. This is considered appropriate given that in the morning many staff arrive before the school starts, while some other staff, especially part time staff are likely to arrive once the school day has started. In the evening, some staff are likely to leave at the very end of the school day while others will stay on into the evening to complete their duties and / or attend after school clubs and may leave later than 18:00. The resulting staff trip generation is presented in **Table 8.8**.

Table 8.8: Primary School Total Person Trip Rates and Generation

Primary School Staff Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Trips	41	0	41	0	41	41

Retail Food Store

Trip Rates and Generation

8.23 Total person retail food store trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of floorspace for West of Ifield, as shown in **Table 8.9**. For the purposes of the trip generation assessment, non-food retail land use has been combined into the retail food store trip generation assessment.

Table 8.9: Food Store Total Person Trip Rates and Generation

Food Store Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per 100m^2)	3.414	2.706	6.12	6.828	7.173	14.001
West of Ifield Trips (up to 5,200m^2)	178	141	318	355	373	728

Leisure

Trip Rates and Generation

8.24 Total person leisure trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of floorspace for West of Ifield, as shown in **Table 8.10**.

Table 8.10: Leisure Total Person Trip Rates and Generation

Leisure Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per 100m^2)	0.857	0.582	1.439	2.309	2.324	4.633

West of Ifield Trips (up to 3,400m^2)	29	20	49	79	79	158

Health Centre

Trip Rates and Generation

8.25 As health centre trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Land Use: Health / GP Surgeries;
- Time Period: Minimum 01/01/2014;
- Gross Floor Area: 200-1,500sqm;
- Neighbourhood Centre Locations.

8.26 The resulting trip rates and person trip generation are summarised in **Table 8.11.**

Table 8.11: Health Centre Total Person Trip Rates and Generation

Health Centre Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per 100m^2)	3.235	2.647	5.882	2.412	3.000	5.412
West of Ifield Trips (up to 1,500m^2)	49	40	88	36	45	81

Creche / Early Years

Trip Rates and Generation

8.27 As creche trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Land Use: Education/Nurseries;
- Time Period: Minimum 01/01/2014;
- Gross Floor Area: 176-1,250sqm;
- Suburban Area Locations.

8.28 The resulting trip rates and person trip generation are summarised in **Table 8.12**.

Table 8.12: Creche Total Person Trip Rates and Generation

Creche Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per 100m^2)	4.967	1.647	6.614	1.856	4.392	6.248
West of Ifield Trips (up to 1,100m^2)	55	18	73	20	48	69

Community Centre

Trip Rates and Generation

8.29 As community centre trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Land Use: Leisure/Community Centre;
- Time Period: Minimum 01/01/2014;
- Gross Floor Area: 100-2,329sqm;
- Edge of Town Centre and Neighbourhood Centre Locations.

8.30 The resulting trip rates and person trip generation are summarised in **Table 8.13**.

Table 8.13: Community Centre Total Person Trip Rates and Generation

Community Centre Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per 100m^2)	1.772	0.214	1.986	1.859	1.149	3.008
West of Ifield Trips (up to 1,200m^2)	21	3	24	22	14	36

Hotel

Trip Rates and Generation

8.31 Total person hotel trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of hotel bedrooms for West of Ifield, as shown in **Table 8.14**.

Table 8.14: Hotel Total Person Trip Rates and Generation

Hotel Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
West of Ifield Trip Rates (per bed)	0.223	0.448	0.671	0.305	0.238	0.543
West of Ifield Trips (up to 80 bedrooms)	18	36	54	24	19	43

Total Development Person Trips

8.32 The total number of person trips forecast to be generated by the proposed West of Ifield development are summarised in **Table 8.15**. These are the total trips when considering each land use individually and do not account for the movement of people between different land uses internally – this is accounted for in the sections which follow.

Table 8.15: Total Development Total Person Trip Generation (Internal & External)

Total People	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Trips	2,333	2,420	4,753	2,509	1,953	4,462

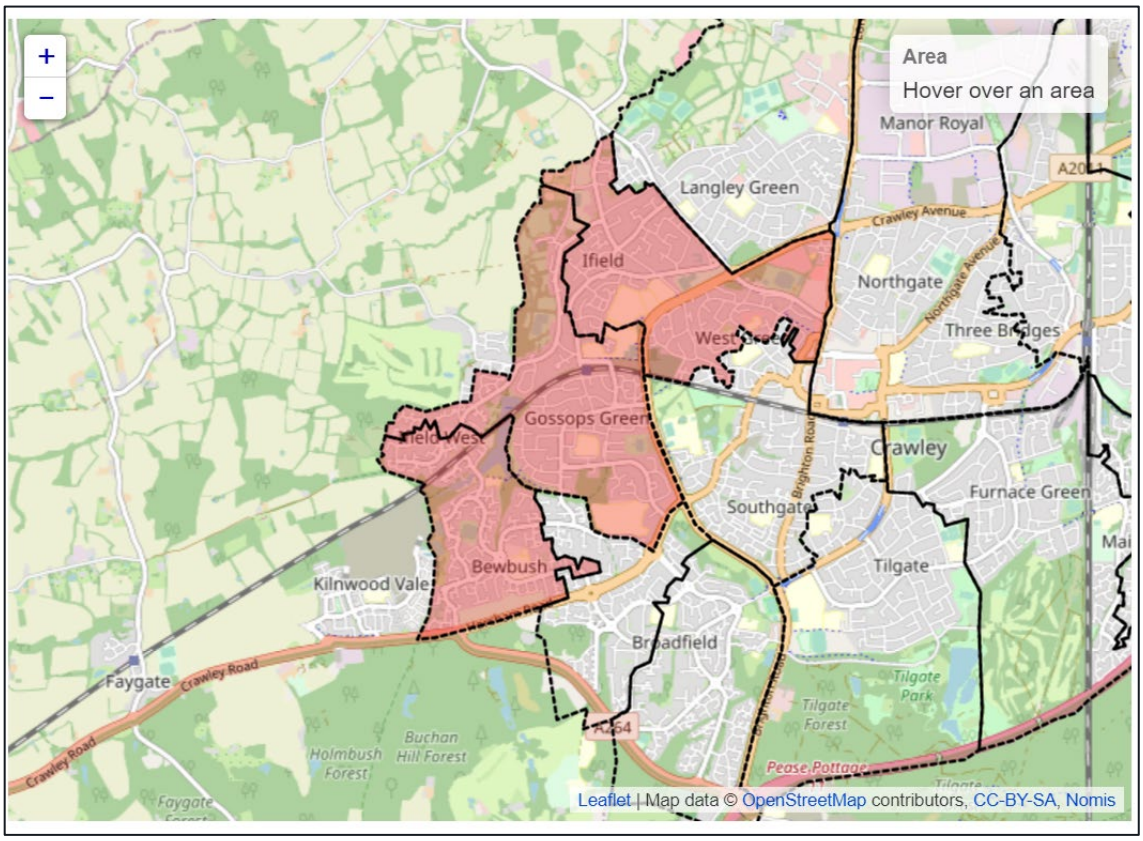
Residential Trip Internalisation

8.33 As set out in Table 6 and Table 7, the residential person trips generated by the development have been split into trip purpose. The number of trips staying on-Site during the peak hours has been calculated for each trip purpose.

Employment Trip Purpose

8.34 2011 Census Travel to Work (TTW) data has been analysed in order to determine how many people currently live and work in the Ifield area. Data from the Crawley 003, 006, 010 middle layer super output areas (MSOAs) have been interrogated as shown in **Figure 8.1**.

Figure 8.1: MSOAs for Employment Trips



8.35 The percentage of people living in these MSOAs, who also work within the MSOAs has been calculated at 8%. This localised internalisation figure has been applied to residential trips for employment purposes generated by the proposed development to show those staying on-Site and leaving the Site for work, as shown in **Table 8.16**.

Table 8.16: Residential Person Trips – Employment Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	13	36	49	152	424	576
PM Peak (1700 – 1800)	52	24	76	615	283	899

8.36 Given the 1:1 homes to jobs ratio targeted at West of Ifield, it is likely that the percentage of people living and working on-Site will be significantly higher than the 8% currently achieved locally, however the above provides a robust assessment in considering the external trip impacts.

Primary Education Trip Purpose

8.37 The proposed primary school will cater for children living at the development. Therefore, all residential person trips with a primary education purpose will stay on-Site, as shown in **Table 8.17**.

Table 8.17: Residential Person Trips – Primary Education Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	0	342	342	0	0	0
PM Peak (1700 – 1800)	33	0	33	0	0	0

Secondary Education Trip Purpose

8.38 The secondary school will provide provision for both children living on Site and those living in close proximity. For transport planning purposes it is assumed that 85% of secondary school pupils living at the development will attend the secondary school on-Site. The remaining 15% of pupils will attend other schools and education facilities, given that there is free choice when choosing a school. Therefore, 85% of residential person trips with a secondary / further education purpose are assumed to stay on-Site, as shown in **Table 8.18**.

Table 8.18: Residential Person Trips – Secondary Education Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	0	198	198	0	35	35
PM Peak (1700 – 1800)	19	0	19	3	0	3

Escort - Primary Education Trip Purpose

8.39 In order to undertake a robust assessment, it is assumed that a proportion of primary escort education trips will be linked to employment trips. The expected number of linked trips has been calculated as follows.

8.40 During the AM peak hour, some parents may drop their child at school and carry on to work.

8.41 DfT statistics Table NTS0408 has been utilised to determine the proportion of linked trips during the AM peak hour. This table shows that 73% of escort education trips return home once dropping their child to school. It is therefore assumed that 27% of departing primary escort education trips in the AM peak hour will carry on to work and leave the development during the peak hour.

8.42 All person trips with a primary escort education purpose in the PM peak hour are assumed to be linked trips, with parents returning from work and picking up their child from after school

clubs/activities. The masterplan includes provision for parking where necessary to support associated uses, however the overarching intention is to limit parking in order to discourage car usage and promote more sustainable modes of transport.

8.43 The number of residential person trips with a primary escort education purpose staying on-Site and leaving the Site are summarised in **Table 8.19**.

Table 8.19: Residential Person Trips – Primary Escort Education Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	98	200	298	0	74	74
PM Peak (1700 – 1800)	0	0	0	25	0	25

Escort - Secondary Education Trip Purpose

8.44 In line with residential person trips with a secondary / further education purpose, 85% of escort education trips will be made to/from the secondary school on Site, as shown in Table 8-23. The remaining 15% of trips will be made to/from schools off Site.

8.45 Therefore, 15% of all escort education trips are assumed to be external trips. Additionally, the methodology for internalisation used for primary escort education trips has been applied to the remaining 85% of secondary / further escort education trips.

8.46 The number of residential person trips with a secondary / further escort education purpose staying on-Site and leaving the Site are summarised in **Table 8.20**.

Table 8.20: Residential Person Trips – Secondary Escort Education Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	67	158	225	0	28	28
PM Peak (1700 – 1800)	0	0	0	17	0	17

Retail Trip Purpose

8.47 For the purpose of this assessment, it is assumed that 50% of all residential person trips with a retail purpose (including food store) will stay on-Site during both peak hours. These people will use the on-Site neighbourhood centre units and food store. The remaining 50% are assumed to be people travelling into town centres and retail parks to buy items not available on Site.

8.48 The number of residential person trips with a retail purpose (including food store) staying on-Site and leaving the Site are summarised in **Table 8.21**.

Table 8.21: Residential Person Trips – Retail Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	15	42	57	15	42	57
PM Peak (1700 – 1800)	113	52	165	113	52	165

Other Personal Business Trip Purpose

8.49 Whilst some residential person trips with other personal business may stay within the Site, e.g. visits to services including hairdressers, laundrettes etc, for the purposes of providing a robust assessment it is assumed that all travel off-Site. The number of residential person trips with other personal business and escort purposes staying on-Site and leaving the Site are summarised in **Table 8.22**.

Table 8.22: Residential Person Trips – Other Personal Business and Escort Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	0	0	0	103	286	388
PM Peak (1700 – 1800)	0	0	0	375	173	548

Visiting Friends/ Entertainment/ Sport Trip Purpose

8.50 It is assumed that 15% of residential person trips with visiting friends, entertainment or sport as their trip purpose will stay on-Site. These people are assumed to be visiting friends who live on-Site and making use of the proposed facilities at the local centres, open space and amenity, recreation, sport and play space at the development. The remaining 85% are assumed to travel off-Site.

8.51 The number of residential person trips with visiting friends, entertainment and sport trip purposes staying on-Site and leaving the Site are summarised in **Table 8.23**.

Table 8.23: Residential Person Trips – Visiting Friends, Entertainment and Sport Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	4	11	14	21	60	81
PM Peak (1700 – 1800)	56	26	81	315	145	460

Holiday / Day Trip / Other Trip Purpose

8.52 For the purpose of this assessment, it is assumed that all residential person trips with holiday, day trip and other trip purposes travel off-Site. The number of residential person trips with holiday, day trip and other purposes staying on-Site and leaving the Site are summarised in **Table 8.24**.

Table 8.24: Residential Person Trips – Holiday, Day Trip and Other Trip Purpose

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	0	0	0	27	77	104
PM Peak (1700 – 1800)	0	0	0	142	65	208

Total Residential Person Trips

8.53 The number of total residential person trips forecast to stay on-Site and leave the Site during the AM and PM peak hours are summarised in **Table 8.25**.

Table 8.25: Total Residential Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	197	986	1,183	319	1,025	1,344
PM Peak (1700 – 1800)	273	102	375	1,605	718	2,323

Internalisation of other land uses

In a similar way to how the residential trip rates have been adjusted, the trip rates for all the other land uses are to be adjusted, as there will be trips to these 'destinations', where the origin is within the Site, i.e. they remain internal.

Office

8.54 The number of residential person trips with an employment purpose internal to the Site (Table 8-2) has been subtracted from the total number of office person trips (Table 8-6) to determine how many internal and external trips are expected to be generated by the employment Site, as shown in **Table 8.26**.

Table 8.26: Employment (Office) Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	38	3	42	452	38	490
PM Peak (1700 – 1800)	3	36	40	38	429	467

Secondary School Trip Internalisation

8.55 In the long term, following full build-out of the development, it is considered reasonable that 85% of secondary school age pupils on-Site would attend the new secondary school to be provided, equating to 1,018 children. Therefore, 795 of the arriving person trips in the AM peak are assumed to be internal to the Site. It has been assumed that all other trips will be external to the Site, in order to undertake a robust assessment. The number of arriving internal trips in the AM peak hour has been subtracted from the total number of secondary school person trips

to determine the number of external arriving trips in the AM peak hour. All departing trips in the AM peak hour are expected to travel off-Site.

8.56 The number of residential person trips arriving at home with a secondary education trip purpose in the PM peak has been used to determine the number of internal secondary school departing person trips. The number of internal departing trips in the PM peak hour has been subtracted from the total number of secondary school person trips to determine the number of external departing trips in the PM peak hour.

8.57 The total numbers of internal and external secondary school person trips are shown in **Table 8.27**.

Table 8.27: Secondary School Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	795	95	889	141	17	158
PM Peak (1700 – 1800)	45	41	86	8	7	15

8.58 As shown in **Table 8.27**, during the AM peak hour, 795 arrivals to the secondary school (85%) are expected from within the development, whilst 141 arrivals (15%) are expected from outside of the development. Given the planned early delivery of the secondary school, it is likely that a higher proportion of pupils may travel from off-Site initially to serve the existing education deficit within the wider Crawley area.

Primary School Trip Internalisation

8.59 As detailed above, the proposed primary school will cater for children living within the development. Therefore, it is expected that there will be no external trips generated by children or parents travelling to primary school, and all internal trips have been discounted.

8.60 Primary school staff numbers have been calculated above. At this stage the assumption is there will be 37 FTE staff for the 420 pupil primary school, with 75% arriving and departing within the AM peak hour and PM peak hour respectively. The resulting external staff trips are summarised in **Table 8.28**.

Table 8.28: Primary School Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	0	0	0	41	0	41
PM Peak (1700 – 1800)	0	0	0	0	41	41

Retail Trip Internalisation

8.61 It is assumed that the provision of a food store and other retail opportunities at the neighbourhood centre would attract trips from within the development itself and reduce the level of trips made off Site. However, it is also anticipated that the food store and retail units could generate a number of 'pass by' trips and attract trips originating from off Site.

8.62 To provide a robust assessment, only the residential person trips with a retail trip purpose have been considered as internal trips. The internal trips have been discounted from the total retail person trips to determine how many external trips are expected to be generated by the retail elements, as shown in **Table 8.29**.

Table 8.29: Retail Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	15	42	57	68	24	92
PM Peak (1700 – 1800)	113	52	165	54	123	177

Leisure Trip Internalisation

8.63 It is assumed that 50% of leisure person trips are to be internal within the development, with the remainder of trips being external to the development. A summary of how many internal and external trips are expected to be generated by the leisure use is shown in **Table 8.30**.

Table 8.30: Leisure Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	15	10	24	15	10	24
PM Peak (1700 – 1800)	39	40	79	39	40	79

Creche Trip Internalisation

8.64 It is assumed that 50% of creche person trips are to be internal within the development, with the remainder of trips being external to the development. A summary of how many internal and external trips are expected to be generated by the creche use is shown in **Table 8.31**.

Table 8.31: Creche Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	27	9	36	27	9	36
PM Peak (1700 – 1800)	10	24	34	10	24	34

Healthcare Trip Internalisation

8.65 It is assumed that 90% of healthcare person trips are to be internal within the development, with the remainder of trips being external to the development. A summary of how many internal and external trips are expected to be generated by the healthcare use is shown in **Table 8.32**.

Table 8.32: Healthcare Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	44	36	79	5	5	9
PM Peak (1700 – 1800)	33	41	73	4	5	8

Community Centre Trip Internalisation

8.66 It is assumed that 100% of community centre person trips are to be internal within the development, with no trips being external to the development. A summary of how many internal trips are expected to be generated by the community centre use is shown in **Table 8.33**.

Table 8.33: Community Centre Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	21	3	24	0	0	0
PM Peak (1700 – 1800)	22	14	36	0	0	0

Hotel Trip Internalisation

8.67 It is assumed that 5% of hotel person trips are to be internal within the development, with the remainder of trips being external to the development. A summary of how many internal and external trips are expected to be generated by the hotel use is shown in **Table 8.34**.

Table 8.34: Hotel Person Trips – Internal and External

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	1	2	3	17	34	51
PM Peak (1700 – 1800)	1	1	2	23	18	41

Total Internal and External Development Person Trips

8.68 **Table 8.35** summarises the total number of internal trips forecast from all proposed land uses and presents the external person trip generation of the development.

Table 8.35: Total Internal and External Development Person Trips

Total People	Internal Person Trips			External Person Trips		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
AM Peak (0800 – 0900)	1,153	1,185	2,338	1.180	1,235	2,414
PM Peak (1700 – 1800)	540	350	890	1,969	1,603	3,572

Mode Share – External Trips

8.69 To consider the impacts of the external person trips on the surrounding transport networks, mode splits have been applied based on the evidence presented within the Transport Strategy and accompanying appendices. The mode share of external trips by land use are summarised in the following sections.

Residential Trip Mode Share

8.70 As set out above, overarching target baseline mode shares for residential trips have been established for West of Ifield and agreed through discussions to date with WSCC, HDC and CBC. The target baseline residential mode shares and forecast external trips during the AM and PM peak hours are set out in **Table 8.36**.

Table 8.36: Residential Mode Share – External Trips

Mode	Target Baseline Mode Share	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	6%	19	61	81	96	43	139
Bus	20%	64	205	269	321	144	465
Car Driver	36%	115	369	484	578	259	836
Car Passenger	20%	64	205	269	321	144	465
Bicycle	10%	32	102	134	160	72	232
Walk	8%	26	82	107	128	57	186
Total	**100%**	**319**	**1,025**	**1,344**	**1,605**	**718**	**2,323**

Employment Trip Mode Share

8.71 Following discussions with local authorities, the evolvement of the Transport Strategy and Travel Plan documents, the external mode share that has been agreed for the residential use of the development will be replicated for all land uses (except for the proposed retail uses and the secondary school). The resulting target baseline employment mode shares and forecast external trips during the AM and PM peak hours are set out in **Table 8.37** for the Office use.

Table 8.37: Employment Mode Share (Office) – External Trips

Mode	Target Baseline Mode Share	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	6%	27	2	29	2	26	28
Bus	20%	90	8	98	8	86	93
Car Driver	36%	163	14	176	14	155	168
Car Passenger	20%	90	8	98	8	86	93
Bicycle	10%	45	4	49	4	43	47
Walk	8%	36	3	39	3	34	37
Total	**100%**	**452**	**38**	**490**	**38**	**429**	**467**

Secondary School Trip Mode Share

8.72 To forecast the mode split for external secondary school trips, NTS *Table NTS06014 11-16 years* has been used as presented in the Transport Strategy and accompanying appendices. To consider only the external secondary school trips, those over 2 miles in distance have been used. The resulting target baseline secondary school mode shares and forecast external trips during the AM and PM peak hours are set out in **Table 8.38**.

Table 8.38: Secondary School Mode Share – External Trips

Mode	Target Baseline Mode Share	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	9%	12	1	14	1	1	1
Bus	55%	77	9	86	4	4	8
Car Driver	30%	43	5	48	2	2	5
Bicycle	4%	5	1	6	0	0	1
Walk	3%	4	0	4	0	0	0
Total	**100%**	**141**	**17**	**158**	**8**	**7**	**15**

Primary School Trip Mode Share

8.73 As described above, all pupil and parent primary school trips are expected to originate from within the development. At this stage to provide a robust assessment, it is assumed that all staff trips during the AM and PM peak periods are car drivers. This equates to 41 car driver arrivals in the morning peak hour, and 41 car driver departures in the evening peak hour.

Retail Trip Mode Share

8.74 To forecast the mode splits for external retail trips, the NTS trip purpose *Table NTS0409* has been used and adjusted as presented in the Transport Strategy and accompanying appendices. Shopping trips over 2km have been used to derive the mode splits for external trips only. The resulting target baseline retail mode shares and forecast external trips during the AM and PM peak hours are set out in **Table 8.39**.

Table 8.39: Retail Mode Share – External Trips

Mode	Target Baseline Mode Share	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	1%	1	1	2	2	3	4
Bus	29%	47	29	76	70	93	163
Car Driver	42%	69	42	110	102	136	238
Car Passenger	23%	38	23	61	56	75	131
Bicycle	1%	1	1	2	2	3	4
Walk	4%	6	4	10	9	12	22
Total	**100%**	**162**	**98**	**261**	**242**	**321**	**563**

Leisure, Creche, Healthcare, Community Centre, and Hotel Mode Share

8.75 As set out above, following discussions with local authorities, the evolvement of the Transport Strategy and Travel Plan documents, the external mode share that has been agreed for the residential use of the development will be replicated for all land uses (except for the proposed retail uses and the secondary school). The same mode shares have been used for the Leisure, Creche, Healthcare, Community Centre, and Hotel land uses. The target baseline mode shares and forecast external trips during the AM and PM peak hours are set out in **Table 8.40**.

Table 8.40: Leisure, Creche, Healthcare, Community Centre, and Hotel Mode Share – External Trips

Mode	Target Baseline Mode Share	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	6%	4	3	7	5	5	10
Bus	20%	13	11	24	15	17	33
Car Driver	36%	23	21	43	27	31	59
Car Passenger	20%	13	11	24	15	17	33
Bicycle	10%	6	6	12	8	9	16
Walk	8%	5	5	10	6	7	13
Total	**100%**	**64**	**57**	**121**	**76**	**86**	**163**

Total Multi-Modal External Trips

8.76 **Table 8.41** shows the total external trips by mode expected to be generated by the development.

Table 8.41: Development External Trip Generation by Mode

Mode	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	65	74	139	106	78	184
Bus	297	276	573	418	346	765
Car Driver	463	476	939	724	627	1,351
Car Passenger	210	262	472	400	324	724
Bicycle	92	121	213	174	127	301
Walk	79	100	179	147	112	259
Total	**1,206**	**1,309**	**2,515**	**1,969**	**1,614**	**3,583**

Delivery and Servicing Trip Generation

8.77 To inform the delivery and servicing trip generation assessment approach, the total people trip rates used in the Crawley Transport Study have been adopted for each specific land use. Trip rates for schools, health centre, creche, and community centre have been derived separately as these are not considered within the Crawley Transport Study. The development quantum set out in Chapter 4 has been used to inform the trip generation assessment.

8.78 The forecast delivery and servicing trip rates (for Other Goods Vehicles (OGVs) and Light Goods Vehicles (LGVs)) and generation for each land use is set out below.

Residential

Total OGV and LGV residential trip rates have been taken from the Crawley Transport Study and applied to the proposed number of residential dwellings at West of Ifield. Consolidation of delivery and servicing trips can occur at a greater rate across larger developments and therefore in order to understand an appropriate level of residential servicing, we have factored up the trip generation for a 1,000 unit development by 33% as shown in **Table 8.42**.

Table 8.42: Residential Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per dwelling)	0.001	0	0.001	0	0	0	0.014	0.014	0.028
	WoI Trips	1	0	1	0	0	0	19	19	37
LGVs	WoI Trip Rates (per dwelling)	0.015	0.02	0.035	0.024	0.01	0.034	0.227	0.215	0.442
	WoI Trips	20	27	47	32	13	45	302	286	588
Total		**21**	**27**	**48**	**32**	**13**	**45**	**321**	**305**	**625**

Employment – Office

8.79 Total OGV and LGV office trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of office floorspace for West of Ifield, as shown in **Table 8.43**.

8.80 Note that LGV office trip rates are not available within the Crawley Transport Study. To produce a comprehensive trip generation assessment, LGV trips have been estimated using a database developed by Steer which utilises survey information from developments across Greater London.

8.81 The database includes the following typical daily trip rates which have been used to estimate the number of servicing/delivery vehicle trips associated with the existing and proposed land uses.

- Office – Daily trip rate of 0.21 vehicles per 100sqm

8.82 It is also assumed given the location of the Site and to take account of consolidation of LGV servicing and delivery trips that 75% of the LGV trips would be anticipated to be associated with the proposed office use. 15% of the daily LGV trips are anticipated to be in the morning and evening peak hours.

Table 8.43: Employment (Office) Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0.005	0.005	0.01	0	0	0	0.018	0.018	0.036
	WoI Trips	1	1	3	0	0	0	5	5	10
LGVs	WoI Trip Rates (per 100sqm)	0.024	0.024	0.047	0.024	0.024	0.047	0.158	0.158	0.315
	WoI Trips	7	7	14	7	7	14	46	46	91
Total		**8**	**8**	**17**	**7**	**7**	**14**	**51**	**51**	**102**

Secondary School

8.83 As secondary school OGV and LGV trip rates are not presented within the Crawley Transport Study, it is assumed that two OGV and three LGV arrival and departure trips are predicted per day, with no trips anticipated during the peak hours. This is presented in **Table 8.44** below.

Table 8.44: Secondary School Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGV	WoI Trips	0	0	0	0	0	0	2	2	4
LGV	WoI Trips	0	0	0	0	0	0	3	3	6
Total		**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**10**

Primary School

8.84 As primary school OGV and LGV trip rates are not presented within the Crawley Transport Study, it is assumed that two OGV and three LGV arrival and departure trips are predicted per day, with no trips anticipated during the peak hours. This is presented in **Table 8.45** below.

Table 8.45: Primary School Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGV	WoI Trips	0	0	0	0	0	0	2	2	4
LGV	WoI Trips	0	0	0	0	0	0	3	3	6
Total		**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**	**10**

Retail Food Store

8.85 Total OGV and LGV retail food store trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of industrial floorspace for West of Ifield, as shown in **Table 8.46**. Note that LGV trip rates are not available and as such LGV trip generation has not been presented. This is considered a robust approach with a minimal/zero number of LGV trips anticipated to be associated to the proposed retail food store.

Table 8.46: Retail Food Store Delivery and Servicing Vehicle Trip Rates and Generation (1,900sqm)

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0.016	0.021	0.037	0.011	0.008	0.019	0.178	0.186	0.364
	WoI Trips	0	0	1	0	0	0	3	4	7

Retail Non-Food Store

8.86 Although the retail (non-food) uses at West of Ifield are not defined, the OGV and LGV trip rates applied to 'retail park – including food' from the Crawley Transport Study have been used at this stage as a proxy for the trips which retail uses on the Site may generate. The total person trip rates have been applied to the proposed quantum of floorspace for West of Ifield, as shown in **Table 8.47**.

Table 8.47: Non-Food Retail Delivery and Servicing Vehicle Trip Rates and Generation (3,300sqm)

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0.009	0.011	0.02	0.006	0.001	0.007	0.097	0.093	0.19
	WoI Trips	0	0	1	0	0	0	3	3	6
LGVs	WoI Trip Rates (per 100sqm)	0.076	0.059	0.135	0.055	0.062	0.117	1.078	1.082	2.16
	WoI Trips	3	2	4	2	2	4	36	36	71
Total		**3**	**2**	**5**	**2**	**2**	**4**	**39**	**39**	**78**

Leisure

8.87 Total OGV and LGV leisure trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of floorspace for West of Ifield, as shown in **Table 8.48**.

Table 8.48: Leisure Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0	0	0	0	0	0	0.006	0.006	0.012
	WoI Trips	0	0	0	0	0	0	0	0	0
LGVs	WoI Trip Rates (per 100sqm)	0.028	0.016	0.044	0.007	0.005	0.012	0.203	0.193	0.396
	WoI Trips	1	1	1	0	0	0	7	7	13
Total		**1**	**1**	**1**	**0**	**0**	**0**	**7**	**7**	**14**

Health Centre

8.88 As health centre OGV and LGV trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Land Use: Health / GP Surgeries;
- Time Period: Minimum 01/01/2014;
- Gross Floor Area: 200-1,500sqm;
- Neighbourhood Centre Locations.

8.89 The resulting OGV and LGV trip rates and trip generation are summarised in **Table 8.49**.

8.90 Note that morning and evening peak hour LGV trips are not available from the selected TRICS Sites. Therefore, in order to present a robust peak hour assessment it has been assumed that 15% of the daily LGV trip rates are represented in the peak hours.

Table 8.49: Health Centre Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0	0	0	0	0	0	0	0	0
	WoI Trips	0	0	0	0	0	0	0	0	0
LGVs	WoI Trip Rates (per 100sqm)	0.027	0.027	0.053	0.027	0.027	0.053	0.177	0.177	0.354
	WoI Trips	0	0	1	0	0	1	3	3	5
Total		**0**	**0**	**1**	**0**	**0**	**1**	**3**	**3**	**5**

Creche

8.91 As creche trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Land Use: Education/Nurseries;
- Time Period: Minimum 01/01/2014;
- Gross Floor Area: 176-1,250sqm;
- Suburban Area Locations.

8.92 The resulting trip rates and person trip generation are summarised in **Table 8.50**. Note that OGV trips are not available from the selected TRICS Sites. Therefore, in order to present a robust assessment it has been assumed that one refuse and one delivery OGV occurs per day.

Table 8.50: Creche Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0	0	0	0	0	0	0	0	0
	WoI Trips	0	0	0	0	0	0	2	2	4
LGVs	WoI Trip Rates (per 100sqm)	0.026	0.026	0.052	0	0.026	0.026	0.208	0.208	0.416
	WoI Trips	0	0	1	0	0	0	2	2	5
Total		**0**	**0**	**1**	**0**	**0**	**0**	**4**	**4**	**9**

Community Centre

8.93 As community centre trip rates are not presented within the Crawley Transport Study, trip rates have been derived from the TRICS database based on the following:

- Land Use: Leisure/Community Centre;
- Time Period: Minimum 01/01/2014;
- Gross Floor Area: 100-2,329sqm;
- Edge of Town Centre and Neighbourhood Centre Locations.

8.94 The resulting trip rates and person trip generation are summarised in **Table 8.51**.

8.95 Note that morning and evening peak hour LGV trips are not available from the selected TRICS Sites. Therefore, in order to present a robust peak hour assessment it has been assumed that 20% of the daily LGV trip rates are represented in the peak hours. Moreover OGV trips are not available from the selected TRICS Sites. Therefore, in order to present a robust assessment it has been assumed that one (one-way) OGV trip occurs per day.

Table 8.51: Community Centre Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per 100sqm)	0	0	0	0	0	0	0	0	0
	WoI Trips	0	0	0	0	0	0	1	1	2
LGVs	WoI Trip Rates (per 100sqm)	0.037	0.031	0.068	0.037	0.031	0.068	0.185	0.154	0.339
	WoI Trips	0	0	1	0	0	1	2	2	4
Total		**0**	**0**	**1**	**0**	**0**	**1**	**3**	**3**	**6**

Hotel

8.96 Total OGV and LGV hotel trip rates have been taken from the Crawley Transport Study and applied to the proposed quantum of hotel bedrooms for West of Ifield, as shown in **Table 8.52**.

8.97 Note that LGV trips are not available from the selected TRICS Sites. Therefore, in order to present a robust assessment it has been assumed that one (one-way) LGV trip occurs during the morning peak hour, with two (one-way) LGV trips occurring across a day.

Table 8.52: Hotel Delivery and Servicing Vehicle Trip Rates and Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGVs	WoI Trip Rates (per bedroom)	0.006	0.006	0.012	0	0.001	0.001	0.026	0.026	0.052
	WoI Trips	0	0	1	0	0	0	2	2	4
LGVs	WoI Trip Rates (per bedroom)	0	0	0	0	0	0	0	0	0
	WoI Trips	1	1	2	0	0	0	2	2	4
Total		**1**	**1**	**3**	**0**	**0**	**0**	**4**	**4**	**8**

Total Delivery and Servicing Trip Generation

8.98 A summary of the total forecast delivery and servicing trip generation from the development land uses is presented below in **Table 8.53**.

Table 8.53: Total Development Delivery and Servicing Trip Generation

Mode		AM Peak (0800 – 0900)			PM Peak (1700 – 1800)			Daily		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
OGV	WoI Trips	4	3	7	0	0	1	40	40	79
LGV	WoI Trips	32	38	70	42	23	65	405	389	794
Total		**36**	**41**	**77**	**42**	**24**	**66**	**445**	**428**	**873**

8.99 Water treatment works is not a land use that has been specifically assessed in the TA in terms of servicing. However, the maximum expected in the event that sludge has to be tankered off the Site is one OGV movement per day (Two way movement of 2). This is an extremely minor increase in the vehicle flows assessed by the TA and will have no measurable impact on link flows or the delays/queuing at the junctions assessed in the TA.

9 Traffic and Highway Assessment

Introduction

9.1 This Chapter of the report assesses the potential traffic and highway impacts of the development proposals on the highway network in the vicinity of the Site, including the traffic flow changes and junction analysis.

Local Plan Modelling

9.2 With West Sussex County Council (WSCC) (as highway authority) both HDC and CBC have each developed their own SATURN highway model to support their Local Plans. A summary of each alongside their relevance to the Proposed Development at the Site is provided below.

Horsham District Council

9.3 Stantec were commissioned by Horsham District Council (HDC) to produce a modelling Transport Assessment to support the emerging Local Plan 2039. Whilst the emerging local plan can only be afforded limited weight, the evidence base which supports it is still relevant. The assessment was undertaken using a SATURN highway model, which assesses the impact of a number of development scenarios on the local highway network managed by WSCC, along with impacts on the Strategic Road Network, managed by National Highways.

9.4 A number of scenarios have been taken through the modelling process and outputs of these have been used to inform the development of a preferred development scenario. It has been assumed that the proposed development at WoI would be associated with the following land use quantum's during the Local Plan period:

- Local Plan Period (Dwellings) = 1,600
- Overall (Dwellings) = 3,000
- Employment B1 (Plan Period, sqm) = 2,700sqm and
- Employment B2 and B8 (Plan Period, sqm) = 6,300sqm.

9.5 Sustainable transport measures have been proposed to promote and encourage sustainable active transport modes as part of the development Sites included in the emerging Local Plan 2039.

9.6 Paragraph 8.6.3 of the Horsham Transport Study Local Plan 2039 Transport Assessment (December 2022) states that *"the sustainable mitigation measures which have been included within the modelling assessment are deemed to be conservative in terms of the mode shift away from cars and therefore the physical mitigation requirements shown, may be reduced if more ambitious sustainable transport measures and targets made by individual Site promoters are realised."*

9.7 The assessment takes a pragmatic and more pessimistic view on the delivery of sustainable modes, and mode shift that could occur. It is considered that additional mode shift could be delivered if additional interventions were considered, i.e. It does not test the 'best case'

outcome and there can be a good level of confidence that the assumption made are both realistic and achievable. This is a reasonable assumption that is included in the Crawley Town Model which is adopted and has been accepted by the Planning Inspector.

9.8 This shows that even without a 'best case' outcome, the majority of highway impacts arising as a result of Local Plan growth would result in less than severe impacts, i.e. the overriding transport test as set out in Paragraph 115 of the NPPF . The scale of growth proposed over the Plan period can be considered to be acceptable in transport terms.

9.9 Where it has been demonstrated that sustainable travel measures would not be enough to fully mitigate the impacts of the Local Plan, further mitigation measures have been developed and assessed. The following junctions are shown to require physical mitigation within Horsham District:

- A24 / A272 Buck Barn.
- A24 / B2237 Hop Oast Roundabout; and
- A24 / A283 Washing Roundabout.

9.10 None of these junctions are located within close proximity of the WoI development Site. Therefore, it can be concluded that the transport modelling completed for the emerging Local Plan 2039 in the Horsham District outlines that the WoI development will not result in a residual negative impact on the operation of local junctions to the Site.

Crawley Borough Council

9.11 Stantec were commissioned by CBC to undertake a transport study to inform the Draft Crawley Local Plan Review for the Crawley Borough Area. The Crawley Local Plan 2021-2037 sets out the spatial strategy and vision for the Borough, and the policies to achieve this for the 17-year period up to 2037. It identifies the overall amount of new development needed over this period of time and indicates the broad locations for new development including the location of major Sites. The Transport Study covers the anticipated development levels created by the draft Local Plan within Crawley Borough.

9.12 The transport modelling for this study has been undertaken using a Saturn Highway Assignment Model (HAM) for Crawley, known as the Crawley Town Model (CTM).

9.13 The Draft Crawley Local Plan is a review of the adopted Local Plan Crawley 2030, extending of the term of the Plan to 2037. Developments have therefore already been identified up to 2030 along with transport mitigation.

9.14 Three Draft Crawley Local Plan scenarios have been tested and are identified as Scenarios 1, 2 and 3. The third scenario includes the assumptions for the proposed development at WoI:

- Scenario 1 – 6,720 dwellings within Crawley Borough at 420 dwellings per annum and Employment Land Trajectories.
- Scenario 2 – As Scenario 1 plus Gatwick Green Employment Allocation; and
- Scenario 3 – As Scenario 2 plus WoI (3,750 Dwellings) and West of Kilnwood Vale (1,546 dwellings) and 50,000 square metres of employment leading to 12,016 dwellings at 751 dwellings per annum in this scenario. It is of note that these numbers are far greater than now being planned for, i.e. WoI is now 3,000 homes rather than 3,500 and West of Kilnwood Vale scheme is unlikely to come forward as envisaged. The scenario, which is already shown as being manageable, is therefore a worse case in terms of traffic impacts.

9.15 The future year traffic modelling is based on a 'decide and provide' approach, encouraging modal shift as far as possible, while only including limited network capacity improvements, some of which would be partially funded by WoI.

9.16 Additional sensitivity tests and modelling reviews have been undertaken including:

9.17 A sensitivity test has been included in Scenario 3 that includes a full link road running from the A264 to the west to A23 London Road to access junctions for the WoI development. The transport Assessment concluded that the full link road was not necessary to address traffic impacts n Crawley / Horsham or support the Crawley Local Plan (and the proposed development at WoI), however if further development beyond Scenario 3 comes forward, then a full link road would help to relieve the impacts on the local highway network in Crawley.

9.18 A test of additional traffic associated with the Gatwick Airport DCO. This also concluded that the additional traffic associated with Gatwick airport could be accommodated on the network, alongside proposed strategic interventions.

9.19 Future year assessment – a review was undertaken of the Local Plan end year against modelling. It was identified that the most recent predicted growth rates show a slower growth and increase in sustainable travel habits which mean that growth rates included within the strategic modelling are robust.

9.20 WSCC are the highway authority responsible for both HDC and CBC, and have concluded that the WoI development will not result in a 'severe' impact upon the highway network and be suitably mitigated, NPPF paragraph 115.

9.21 With specific consideration of the West of Ifield allocation, the model shows that none of the junctions identified are located within close proximity of the WoI development Site, and the WoI proposals will bring forward a package of sustainable transport interventions both on and off Site that will be to the benefit of both future residents and local residents in the vicinity of the Site.

9.22 The Crawley traffic modelling has been subject to review through the Local Plan Examination in Public and found to be sound.

9.23 The Crawley Town Model (CTM), developed by Stantec support both the HDC and CBC Local Plan review processes, the Crawley Transport Study (2022) and Horsham Transport Study (2022) respectively, has been used to undertake strategic modelling of the area.

9.24 This work provides an update to each respective strategic model and includes new committed developments, Site allocations, neighbouring authority growth projections and proposed highway schemes as agreed with WSCC. The West of Ifield development is considered in both transport studies 'Local Plan' scenarios.

9.25 Following the agreement with local authorities on the transport strategy, trip rates and accompanying travel plan for WoI which provides a comprehensive set of sustainable measures to reduce car-based travel, the modelling undertaken and presented within this TA to test the impact of the West of Ifield development has been undertaken using the mode shares presented in Chapter 8 (i.e. Local Plan growth without West of Ifield as previously modelled by WSCC, but with our agreed West of Ifield trip generation added).

9.26 No reductions in background traffic have been applied as a result of the enhanced bus provision that WoI will provide within the local area (i.e. to existing results beyond WoI), nor additional traffic reduction through wider sustainable transport measures within the Crawley area.

However, considering the timing of the development, current trends for travel reductions supported by enhanced technology and accelerated by COVID-19, significant change is likely to occur over the development period. This is also supported by the shared objectives of HDC, CBC, WSCC and Transport for the South East (TfSE) in reducing travel demand and private car trips over time. The Crawley Transport Strategy acknowledges that "On average, over the last 20 years people are travelling less and making fewer trips, commuter trips are down by a 5th". We therefore present the modelling as an absolute worst-case scenario in terms of highway impact.

Committed Developments

9.27 The traffic flows of the committed development Sites have been considered as part of this TA. The Crawley Town Model includes within the Base a comprehensive assessment of cumulative schemes. These are provided in **Appendix K**.

9.28 In addition, Gatwick Airport Limited (GAL) are in the process of making a Development Consent Order (DCO) application for use of the emergency (second) northern runway for general use. This is proposed to be open in 2029 and ramp up in terms of usage towards 2047. Up until the second runway is operational, GAL have provided Business as Usual (BAU) demand, However, to ensure that the modelled flows used in the CTM represent worst case, the CTM has assumed a higher proportion of vehicle movements than Gatwick Airport. The Planning Inspectorate on behalf of the Secretary of State (SoS) accepted the application for Development Consent Order on 3rd August 2023. . The modelling completed for the Gatwick Airport DCO application has allowed for the growth associated to the Proposed Development and this also identified that all committed and planned growth can be accommodated within the local road network, alongside a range of both capacity and sustainable transport interventions. In April 2025 the SoS stated that they were minded to approve the DCO, subject to confirmation on additional information on the transport mitigation strategy.

9.29 GAL propose additional sustainable transport measures particularly for staff, however the growth in passenger numbers expected will generate additional highway demand. To facilitate this, GAL propose highway mitigation in terms of significant improvements to the North and South terminal access junctions and Longbridge roundabout. The designs for this 'Northern Runway Project highway scheme' are provided in **Appendix L** and have been coded into the model for the 2041 scenarios as they will be operational from 2032.

9.30 Although GAL have their own assignment model which assigns a significant volume of traffic towards the M23, we have used the assignment as modelled within the CTM to provide a robust assessment for the area to the west of Gatwick Airport.

9.31 Gatwick growth has been included in the modelling as below:

- 2019 – Gatwick existing operations as per modelled in the CTM
- 2026 – Gatwick flows as modelled in the CTM
- 2035 – Gatwick DCO growth added to the CTM (the second runway is to become operational in 2029 with their junction mitigation in place by 2032).

9.32 For clarity, in 2019 base model, existing Gatwick flows have been included within the CTM, for 2026 Development Opening Year Gatwick flows have been included (as modelled within the CTM) and for 2041 the Gatwick DCO "with project" flows have been added to the CTM.

Highway Assessment

9.33 The effects of the development on the surrounding highway network has been assessed for the weekday morning and evening peak hours for the baseline, opening and future scenarios. The assessment scenarios are as follows:

- 2025 Baseline scenario;
- 2029 Opening Year (without development, no CWMMC) + committed developments (as modelled within the CTM);
- 2029 Opening Year (first phase development, with CWMMC) + committed developments (as modelled within the CTM);
- 2041 Future Year (without development, no CWMMC) + committed developments (as modelled within the CTM plus GAL DCO growth); and
- 2041 Future Year (full development, with CWMMC) + committed developments (as modelled within the CTM plus GAL DCO growth).

9.34 Note that the first phase of development referenced in the 2029 Opening Year development constitutes the following development uses being built out in addition to the construction of the CWMMC being completed:

- Secondary School – 2 years' worth of 6FE which equates to 360 pupils); and
- Residential – 25 Dwellings.

9.35 No internalisation has been used as it may be that the opening year of the secondary school includes pupils from beyond the WoI area.

9.36 Due to the build out going beyond the Local Plan timescales we have tested 2041 rather than 2035 in line with the Local Plan.

Traffic Growth

9.37 TEMPRO (v7.2c) growth factors have been applied to the 2035 Crawley Town Model flows in order to devise the 2041 future year scenario flows. Moreover, the TEMPRO growth factors have also been applied to the 2015 Crawley Town Model to devise the 2019 baseline scenario flows. 2019 has been selected as the most representative pre-covid baseline. These present the worst case scenario as the sustainable transport measures within Crawley are likely to encourage wider mode shift.

9.38 The TEMPRO growth factors have been obtained for the Middle Super Output Areas (MSOA) relevant to the junctions that are being assessed, as agreed with the local authorities. **Table 9.1** provides a summary of the growth factors that have been used.

Table 9.1: TEMPRO Growth Rates

Unitary Authority	Junction	TEMPRO Growth rates			
		2015-2025		2035-2041	
		AM Peak	PM Peak	AM Peak	PM Peak
Crawley	Ifield Avenue/Stagelands	1.085687248	1.08743819	1.044941018	1.042338362
	Ifield Avenue/Warren Drive	1.085687248	1.08743819	1.044941018	1.042338362
	Ifield Avenue/Ifield Drive	1.085687248	1.08743819	1.044941018	1.042338362
	Ifield Avenue/A23 Crawley Avenue	1.085687248	1.08743819	1.044941018	1.042338362
	Link Road/North Access	1.085687248	1.08743819	1.044941018	1.042338362
	Link Road/South Access	1.085687248	1.08743819	1.044941018	1.042338362
	Link Road/Charlwood Road	1.085687248	1.08743819	1.044941018	1.042338362
	Charlwood Road/Ifield Wood	1.085687248	1.08743819	1.044941018	1.042338362
	A264/Faygate Lane	1.085687248	1.08743819	1.044941018	1.042338362
	A264 / Horsham Road	1.085687248	1.08743819	1.044941018	1.042338362

Strategic Modelling Results

9.39 The strategic modelling results have been identified for key links around the Site. The modelling demonstrates that there are some areas where WoI adds additional traffic to the network beyond the growth associated with GAL DCO.

9.40 In order to assess if and where any impact of the WoI is occurring on the network, we have investigated the additional delay at junctions across the network.

Background Traffic Growth

9.41 As set out in the Crawley Transport Study, the modal shift assumption assumed in the Draft Crawley Local Plan modelling are conservative assumptions, proportionate to the scale of the development Sites proposed. There is potential to achieve higher levels of reductions in future as people's attitude towards travel changes and the decarbonisation of the travel behaviour accelerates changes in urban mobility.

9.42 With greater mode shift towards cycling, further investment in bus priority measures and continued changing trends in working patters alongside virtual mobility, it is likely that there will be greater uptake of sustainable travel modes, and less reliance on private car trips, during the timeline of the Draft Crawley Local Plan. This could translate, in future, to higher levels of sustainable travel using sustainable modes and cutting down on car use.

9.43 As such, where junctions may be predicted to go over capacity in the future, a decision should be made as to whether it is appropriate to mitigate the impact through a traditional 'predict and provide' junction capacity improvement, or to consider the likelihood of other mitigation measures being able to offset the impacts, i.e. further pedestrian and cycle improvements which would reduce the impact of the traffic originating from the Site. This approach is especially relevant where impacts may be arising in the latter parts of the plan, or as a result of a cumulative assessment, for development which may or may not come forward, as currently envisaged.

9.44 Any 'potential' mitigation schemes will therefore be discussed with West Sussex as Highway Authority and Crawley as the planning authority.

Junction Analysis

9.45 The strategic modelling has been used to demonstrate where the flows might have impacted local junctions within the vicinity of the development. They have been selected where they are in close proximity to the Site and agreed through pre-app discussions. Therefore, full capacity assessments have been carried out at the following junctions, as agreed with the local authorities during pre-application discussions:

- CWMMC / North Access – Signalised 4-arm Junction;
- CWMMC / South Access – Signalised 4-arm Junction;
- CWMMC / Charlwood Road / Bonnetts Lane / Ifield Avenue / Ifield Green – Signalised 3-arm junction and 4-arm junction treated as one within LinSig model due to close proximity
- Ifield Avenue / Warren Drive – Priority junction;
- Ifield Avenue / Stagelands – Priority junction;
- Ifield Avenue / Ifield Drive – 3 arm roundabout (signalised);
- Ifield Avenue / A23 Crawley Avenue – 4 arm roundabout;
- A264 / Faygate Lane – 4 arm roundabout; and
- A264 / Horsham Road – 4 arm roundabout.

9.46 The above priority and roundabout junctions have been modelled using Junctions 9 and those that are signal controlled have been assessed using LinSig.

9.47 The results of the Junctions 9 assessments for the junctions provide an RFC (Ratio of Flow to Capacity) figure and Queue (Q) length (number of vehicles).

9.48 The RFC determines how the arm of the junction is operating and if the RFC is 0.85 or less, the relevant arm of the junction is determined to be within its design capacity with minimal queues. An RFC greater than 0.85 and less than 1 shows that the junction is operating close to its design capacity and as such some queues and delays may start to occur. When an RFC is greater than 1, the arm of the junction is operating at or exceeding its design capacity and as a result longer delays / queues will start to form. On this basis, a maximum RFC will be used as the absolute capacity of a junction. Should the level of traffic at a junction exceed this threshold, then mitigation may be required.

9.49 For the Junctions 9 capacity assessments a 60-minute flat traffic profile has been used, as it is considered this is the most representative modelling parameter to reflect the existing traffic conditions observed on the local highway network.

9.50 The results from LinSig models are expressed in Practical Reserve Capacity (PRC), which is calculated based on a maximum Degree of Saturation (DoS) on each signalised approach. The DoS is the ratio of traffic flow to saturation capacity on a link. A DoS of 90% or below is used as a guide for a junction to operate within capacity. If the DoS is over 100%, there is more traffic trying to pass through the junction than can be accommodated in a one-hour period.

9.51 LinSig also provides queue results as Mean Maximum Queue (MMQ), which is estimated mean number of vehicles (or Passenger Car Units, PCU's) which have added onto the back of the queue up to the time when the queue finally clears at the junction stop line.

9.52 It should be noted that over-saturated junction models can sometimes over-emphasise model results due to the inability of the modelling software to accurately reflect the operations once they go over theoretical capacity; this can lead to exponential queues forming etc, which does not happen in reality with drivers either taking different routes or travelling at different times or using alternative means of transport.

9.53 It is considered that the 2029 Opening Year and 2041 Future Year proposed development scenarios provide the most robust assessment, as these assessment years are when background traffic is highest and the committed developments outlined in the Crawley Transport Model are accounted for, and therefore any impacts would be at their highest.

9.54 The full Junctions 9 model outputs are provided in **Appendix M** and the full LinSig modelling reports are included in **Appendix N**.

Crawley Western Link / South Access (Site Access 1, West of Rusper Road)

9.55 The proposed CWMMC / South Access junction (west of Rusper Road) which provides access to the neighbourhood centre as well as a through route to Rusper Road to the north, will be in the form of a signalised 4 arm cross-roads with no flows on the western arm as it is a no-through route at this stage (designed to allow future westwards expansion).

9.56 The modelling results for the 2041 Future Year With Development scenarios are summarised in **Table 9.2**. No assessment has been made without development as the junction will only be operational with development, as it does not exist at present.

Table 9.2: Site Access 1, West of Rusper Road Junction Capacity Assessment (2041 Future Year With Development + Committed Developments (with GAL DCO))

Link Name	2041 Future Year (With Development + Committed Developments)	
	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)		
Crawley Western Link (E) Ahead Right Left	46.7	3.8
Urban Centre Right Left Ahead	42.9	3.9
Crawley Western Link (W) Ahead Left Right	0	0
Site Access Left Right Ahead	48.8	8.1
PM Peak Hour (17:00-18:00)		
Crawley Western Link (E) Ahead Right Left	45.9	4.3
Urban Centre Right Left Ahead	44.9	6.1
Crawley Western Link (W) Ahead Left Right	0	0
Site Access Left Right Ahead	32.5	4.5

9.57 The modelling results demonstrate that the junction operates within capacity.

Crawley Western Link / North Access (Site Access 2, East of Rusper Road)

9.58 The proposed CWMMC / south Site Access junction will be in the form of a signalised 4 arm cross-roads. Toucan crossings will be provided on each arm.

9.59 The modelling results for the 2041 Future Year With Development + Committed Developments scenario is summarised in **Table 9.3**. No assessment has been made without development as the junction will only be operational with development, as it does not exist at present.

Table 9.3: Site Access 2, East of Rusper Road Junction Capacity Assessment (2041 Future Year With Development + Committed Development (with GAL DCO))

Link Name	2041 Future Year (With Development + Committed Developments)	
	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)		
Crawley Western Link (E) Ahead Right Left	40.8	4.8
Urban Centre Right Left Ahead	51.7	4.2
Crawley Western Link (W) Ahead Left Right	52.8	8.8
Site Access Left Right Ahead	17.2	1.5
PM Peak Hour (17:00-18:00)		
Crawley Western Link (E) Ahead Right Left	48.9	5.3
Urban Centre Right Left Ahead	46.0	2.8
Crawley Western Link (W) Ahead Left Right	28.4	3.9
Site Access Left Right Ahead	41.1	3.9

9.60 The modelling results demonstrate that the junction operates within capacity.

Crawley Western Link / Charlwood Road / Bonnetts Lane / Ifield Avenue / Ifield Green

9.61 The proposed CWMMC / Charlwood Road / Bonnetts Lane / Ifield Avenue / Ifield Green junction will be in the form of a linked signalised 3-arm and 4-arm junction treated as one within the LinSig model due to the close proximity of the two junctions.

9.62 The modelling results for the 2041 Future Year With Development + Committed Developments (with GAL DCO) scenario is summarised in **Table 9.4**.

Table 9.4: Crawley Western Link / Charlwood Road / Bonnetts Lane / Ifield Avenue / Ifield Green Junction Capacity Assessment (2041 Future Year With Development + Committed Developments)

Link Name	2041 Future Year (With Development + Committed Developments)	
	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)		
J1: Charlwood Road / Bonnets Lane		
Charlwood Road N Left Ahead	28.5	0.2
Bonnetts Lane Right Left	72.6	1.3
Charlwood Road S Right Ahead	82.0	21.4
J2: Relief Road / Ifield Green		
Ifield Green U-Turn Left	49.7	3.3
Crawley Western Link Left U-Turn Right	106.7	41.8
Ifield Avenue Left Ahead	84.7	19.6
Charlwood Road Right Ahead	107.1	53.0

Ifield Avenue Exit	24.5	0.2
PM Peak Hour (17:00-18:00)		
J1: Charlwood Road / Bonnets Lane		
Charlwood Road N Left Ahead	51.8	0.5
Bonnetts Lane Right Left	93.6	13.0
Charlwood Road S Right Ahead	31.8	11.9
J2: Relief Road / Ifield Green		
Ifield Green U-Turn Left	47.9	3.2
Crawley Western Link Left U-Turn Right	99.6	20.5
Ifield Avenue Left Ahead	73.1	13.7
Charlwood Road Right Ahead	103.4	55.2
Ifield Avenue Exit	36.6	0.3

9.63 The modelling results demonstrate that the junction operates within capacity.

Ifield Avenue / Warren Drive

9.64 The existing arrangement of the Ifield Avenue / Warren Drive junction is in the form of a priority junction. The following scenarios have been modelled in Junctions 9 for the existing arrangement and are shown below

- 2019 Baseline scenario;
- 2029 Opening Year (without development, no Crawley Western Link) + committed developments (as modelled within the CTM);
- 2029 Opening Year (first phase development, with Crawley Western Link) + committed developments (as modelled within the CTM);
- 2041 Future Year (without development, no Crawley Western Link) + committed developments (as modelled within the CTM plus GAL DCO growth); and
- 2041 Future Year (full development, with Crawley Western Link) + committed developments (as modelled within the CTM plus GAL DCO growth).

9.65 **Table 9.5** to **Table 9.7**.

- 2019 Baseline scenario;
- 2029 Opening Year (without development, no Crawley Western Link) + committed developments (as modelled within the CTM);
- 2029 Opening Year (first phase development, with Crawley Western Link) + committed developments (as modelled within the CTM);
- 2041 Future Year (without development, no Crawley Western Link) + committed developments (as modelled within the CTM plus GAL DCO growth); and
- 2041 Future Year (full development, with Crawley Western Link) + committed developments (as modelled within the CTM plus GAL DCO growth).

Table 9.5: Ifield Avenue / Warren Drive Junction Capacity Assessment (2025 Baseline Scenario)

Link Name	2025 Baseline	
	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)		
Ifield Avenue (N)	4.7	0.83
Ifield Avenue (S)	1.5	0.59
Warren Drive	0.7	0.43
PM Peak Hour (17:00-18:00)		
Ifield Avenue (N)	1.6	0.62
Ifield Avenue (S)	17.7	0.98
Warren Drive	0.1	0.06

Table 9.6: Ifield Avenue / Warren Drive Junction Capacity Assessment (2029 Opening Year Without Development, No CWMMC + Committed Developments) and (2029 Opening Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2029 Opening Year (without development) + committed development		2029 Opening Year (with first phase development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
Ifield Avenue (N)	6.4	0.87	2.7	0.73
Ifield Avenue (S)	1.3	0.57	1.2	0.54
Warren Drive	1.4	0.58	1.3	0.56
PM Peak Hour (17:00-18:00)				
Ifield Avenue (N)	5.7	0.86	2.7	0.79
Ifield Avenue (S)	7.3	0.89	14.9	0.97
Warren Drive	0.2	0.19	0.3	0.22

Table 9.7: Ifield Avenue / Warren Drive Junction Capacity Assessment (2041 Future Year Without Development, No CWMMC + Committed Developments) and (2041 Future Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2041 Future Year (without development) + committed development		2041 Future Year (with full development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
Ifield Avenue (N)	10.9	0.94	5.5	0.86
Ifield Avenue (S)	1.4	0.57	5.2	0.85
Warren Drive	1.6	0.61	4.5	0.84
PM Peak Hour (17:00-18:00)				
Ifield Avenue (N)	7.3	0.89	14.2	0.96

Ifield Avenue (S)	10.5	0.93	130.0	1.24
Warren Drive	0.3	0.20	0.3	0.25

9.66 The modelling demonstrates that the Ifield Avenue (N) arm in the AM peak and Ifield Avenue (S) arm in the PM peak hour, is near its operating capacity with an RFC greater than 0.85 but below 1.0. In the 2029 Opening Year (with first phase development) + committed development scenario, the Ifield Avenue (S) arm in the PM peak hour is near its operating capacity with an RFC of 0.97

9.67 In the 2041 Future Year (with full development + committed development), the arm Ifield Avenue (N) is near its operating capacity in both peak hour periods, alongside Ifield Avenue (S) arm in the AM peak hour. The arm Ifield Avenue (S) is above its operating capacity in the PM peak hour with an RFC of 1.24, which is above the threshold of 1.0.

9.68 Therefore, mitigation has been proposed at the Ifield Avenue / Warren Drive junction and a signalised priority junction has been considered. The indicative design for this junction is included in **Appendix O**. The LinSig modelling results are presented in **Table 9.8** below.

Table 9.8: Ifield Avenue / Warren Drive Junction Capacity Assessment (2041 Future Year With Development + Committed Developments)

Link Name	2041 Future Year (With Development + Committed Developments)	
	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)		
Ifield Avenue (SB Entry) Ahead Right	86.8	15.9
Ifield Avenue (NB Entry) Left Ahead	78.4	14.1
Warren Drive (Exit) Right Left	85.9	10.8
PM Peak Hour (17:00-18:00)		
Ifield Avenue (SB Entry) Ahead Right	76.8	16.8
Ifield Avenue (NB Entry) Left Ahead	79.4	18.3
Warren Drive (Exit) Right Left	52.7	2.7

9.69 The modelling shows that the proposed redesign of the Ifield Avenue / Warren Drive junction provides suitable mitigation to bring the junction within a Degree of Saturation (DoS) of 85%. The DoS is slightly above 85% for the Ifield Avenue (SB entry) ahead right arm and Waren Drive (exit) right left arm, but this is deemed to be acceptable and an improvement on the existing junction arrangement.

Ifield Avenue / Stagelands

9.70 The existing arrangement of the Ifield Avenue / Stagelands junction is in the form of a priority junction. The scenarios modelled in Junctions 9 for the existing arrangement are shown below in **Table 9.9** to **Table 9.10**.

Table 9.9: Ifield Avenue / Stagelands Junction Capacity Assessment (2025 Baseline)

Link Name	2025 Baseline	
	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)		
Ifield Avenue NW	51.8	1.83
Stagelands Road	17.1	1.73
Ifield Avenue SE	83.7	1.35
PM Peak Hour (17:00-18:00)		
Ifield Avenue NW	68.5	1.42
Stagelands Road	88.4	1.42
Ifield Avenue SE	0.1	0.10

Table 9.10: Ifield Avenue / Stagelands Junction Capacity Assessment (2041 Future Year Without Development, No CWMMC + Committed Developments) and (2041 Future Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2041 Future Year (without development) + committed development		2041 Future Year (with full development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
Ifield Avenue NW	8.6	1.05	40.1	1.72
Stagelands Road	8.3	1.00	48.1	1.72
Ifield Avenue SE	18.7	1.05	37.0	1.14
PM Peak Hour (17:00-18:00)				
Ifield Avenue NW	29.7	1.27	51.4	1.57
Stagelands Road	36.7	1.25	68.4	1.58
Ifield Avenue SE	0.4	0.24	0.4	0.27

9.71 It is demonstrated in Table 9.11 that all arms (except one in the PM peak) in the 2025 Baseline Year are over capacity (RFC>1.0). This demand and associated queues grow in the 2041 Future Year (without development) + Committed Development scenario.

9.72 Although the Applicant should not be 'fixing' an existing network problem, we have looked at what mitigation might be possible that could enhance bus journey times for the proposed Fastway service (route B) when travelling from the CWMMC towards Manor Royal. Therefore, a signalised priority junction has been considered. The LinSig modelling results are presented in **Table 9.11** below.

Table 9.11: Ifield Avenue / Stagelands Junction Capacity Assessment (2041 Future Year With Development + Committed Developments)

Link Name	2041 Future Year (With Development + Committed Developments)	
	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)		
Ifield Avenue (NB Entry) Ahead Right	78.4	19.2
Ifield Avenue (SB Entry) Left Ahead	69.3	13.9
Stagelands Right Left	78.4	10.1
PM Peak Hour (17:00-18:00)		
Ifield Avenue (NB Entry) Ahead Right	86.4	20.8
Ifield Avenue (SB Entry) Left Ahead	86.4	17.0
Stagelands Right Left	86.3	10.8

9.73 **Table 9.11** demonstrates that the mitigation option brings the junction to within capacity and reduces the queues significantly particularly for the buses coming from Manor Royal towards WoI (i.e. approaching Ifield Avenue from Stagelands).

Ifield Avenue / Ifield Drive

9.74 The existing arrangement of the Ifield Avenue / Ifield Drive junction is in the form of a 3-arm signalised junction, which has recently been implemented and was previously a roundabout. The 2025 scenario has therefore been modelled using junctions 9, and the 2029 and 2041 scenarios in LinSig. The scenarios modelled are shown below in **Table 9.12 - Table 9.14**.

Table 9.12: Ifield Avenue / Ifield Drive Junction Capacity Assessment (2025 Baseline)

Link Name	2025 Baseline	
	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)		
Ifield Avenue (SB)	7.6	0.90
Ifield Avenue (NB)	79.8	1.14
Ifield Drive	18.8	1.00
PM Peak Hour (17:00-18:00)		
Ifield Avenue (SB)	45.3	1.08
Ifield Avenue (NB)	103.7	1.19
Ifield Drive	0.7	0.42

Table 9.13: Ifield Avenue / Ifield Drive Junction Capacity Assessment (2029 Opening Year Without Development, No CWMMC + Committed Developments) and (2029 Opening Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2029 Opening Year (without development) + committed development		2029 Opening Year (with first phase development) + committed development	
	DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)				
Ifield Avenue (N) ahead right	63.4	14.0	52.8	10.8
Ifield Avenue (S) left	52.4	10.9	52.4	10.8
Ifield Avenue (S) ahead	70.9	18.3	70.8	18.2
Ifield Drive right left	70.2	12.8	70.0	12.8
PM Peak Hour (17:00-18:00)				
Ifield Avenue (N) ahead right	100.8	47.2	82.2	21.9
Ifield Avenue (S) left	100.0	38.6	82.9	21.0
Ifield Avenue (S) ahead	51.5	12.8	57.2	15.0
Ifield Drive right left	59.9	6.4	60.5	6.6

Table 9.14: Ifield Avenue / Ifield Drive Junction Capacity Assessment (2041 Future Year Without Development, No CWMMC + Committed Developments) and (2041 Future Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2041 Future Year (without development) + committed development		2041 Future Year (with full development) + committed development	
	DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
AM Peak Hour (08:00-09:00)				
Ifield Avenue (N) ahead right	70.7	16.0	59.8	13.7
Ifield Avenue (S) left	53.8	11.6	60.2	13.6
Ifield Avenue (S) ahead	70.7	17.7	86.5	28.4
Ifield Drive right left	70.8	13.3	86.3	16.9
PM Peak Hour (17:00-18:00)				
Ifield Avenue (N) ahead right	105.4	69.8	90.6	31.0
Ifield Avenue (S) left	104.7	54.0	90.8	22.4
Ifield Avenue (S) ahead	53.1	14.6	72.9	23.8
Ifield Drive right left	65.9	6.9	69.6	7.6

9.75 It is demonstrated in **Table 9.14** that additional capacity has been created following the signalisation of the junction in 2021/22. In all scenarios the WoI development flows and associated CWMMC improve the operation of the junction. Therefore no further mitigation is suggested.

Ifield Avenue / A23 Crawley Avenue

9.76 The existing arrangement of the Ifield Avenue / A23 Crawley Avenue junction is in the form of a 4-arm roundabout. The scenarios modelled in Junctions 9 for the existing arrangement are shown below in **Table 9.15** to **Table 9.17**.

Table 9.15: Ifield Avenue / A23 Crawley Avenue Junction Capacity Assessment (2025 Baseline)

Link Name	2025 Baseline	
	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)		
Ifield Avenue North	1.5	0.59
A23 Crawley Avenue East	4.7	0.81
Ifield Avenue South	0.6	0.39
A23 Crawley Avenue West	4.7	0.82
PM Peak Hour (17:00-18:00)		
A23 Crawley Avenue East	0.9	0.47
Ifield Avenue South	2.9	0.72
A23 Crawley Avenue West	0.6	0.38
Ifield Avenue North	3.7	0.78

Table 9.16: Ifield Avenue / A23 Crawley Avenue Junction Capacity Assessment (2029 Opening Year Without Development, No CWMMC + Committed Developments) and (2029 Opening Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2029 Opening Year (without development) + committed development		2029 Opening Year (with first phase development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
Ifield Avenue North	0.7	0.39	0.7	0.41
A23 Crawley Avenue East	2.6	0.70	2.2	0.67
Ifield Avenue South	0.6	0.37	0.5	0.35
A23 Crawley Avenue West	3.8	0.79	3.5	0.77
PM Peak Hour (17:00-18:00)				
Ifield Avenue North	0.9	0.47	0.7	0.41
A23 Crawley Avenue East	58.7	1.06	39.8	1.02
Ifield Avenue South	2.1	0.68	2.0	0.67
A23 Crawley Avenue West	3.2	0.75	3.5	0.77

Table 9.17: Ifield Avenue / A23 Crawley Avenue Junction Capacity Assessment (2041 Future Year Without Development, No CWMMC + Committed Developments) and (2041 Future Year Development, With CWMMC + Committed Developments)

Link Name	2041 Future Year (without development) + committed development		2041 Future Year (with full development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
Ifield Avenue North	1.2	0.54	0.7	0.41
A23 Crawley Avenue East	5.6	0.84	2.1	0.65
Ifield Avenue South	0.8	0.43	0.7	0.43
A23 Crawley Avenue West	5.9	0.86	4.9	0.83
PM Peak Hour (17:00-18:00)				
Ifield Avenue North	1.0	0.51	0.8	0.45
A23 Crawley Avenue East	111.3	1.14	88.7	1.10
Ifield Avenue South	2.2	0.69	2.2	0.69
A23 Crawley Avenue West	3.9	0.79	4.0	0.79

9.77 The operation of the Crawley Avenue / Ifield Avenue junction appears to generate a slight improvement in 2041 with development rather than without. This is likely to be due to the introduction of the CWMMC providing an alternative to traffic to A23, but also a quirk of the model where traffic reallocates from where congestion exists nearby on the network.

9.78 We note that the Crawley Local Plan has identified a scheme to increase capacity through the addition of an eastbound slip lane on Crawley Avenue turning left towards Ifield Avenue (northbound) and an additional circulatory lane on the westbound direction from Crawley Avenue. This has not been included in the modelling and is not needed to facilitate the WoI development.

A264 / Faygate Lane

9.79 The existing arrangement of the A264 / Faygate junction is in the form of a 4-arm roundabout. The scenarios modelled in Junctions 9 for the existing arrangement are shown below in **Table 9.18** to **Table 9.20**.

Table 9.18: A264 / Faygate Lane Junction Capacity Assessment (2025 Baseline)

Link Name	2025 Baseline	
	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)		
A264 Crawley Road West	253.3	1.26
Faygate Lane	0.9	0.44
A264 Crawley Road East	24.5	0.97
Tower Road	0.0	0.04
PM Peak Hour (17:00-18:00)		
A264 Crawley Road West	101.2	1.09
Faygate Lane	1.7	0.64
A264 Crawley Road East	142.8	1.12
Tower Road	0.2	0.17

Table 9.19: A264 / Faygate Lane Junction Capacity Assessment (2029 Opening Year Without Development, No CWMMC + Committed Developments) and (2029 Opening Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2029 Opening Year (without development) + committed development		2029 Opening Year (with first phase development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
A264 Crawley Road West	131.0	1.13	119.3	1.12
Faygate Lane	0.9	0.43	0.7	0.35
A264 Crawley Road East	91.8	1.07	102.2	1.08
Tower Road	1.1	0.52	1.1	0.53
PM Peak Hour (17:00-18:00)				
A264 Crawley Road West	134.9	1.12	128.5	1.11
Faygate Lane	2.5	0.72	1.5	0.60
A264 Crawley Road East	190.3	1.19	171.2	1.16
Tower Road	0.2	0.16	0.3	0.23

Table 9.20: A264 / Faygate Lane Junction Capacity Assessment (2041 Future Year Without Development, No CWMMC + Committed Developments) and (2041 Future Year, With CWMMC + Committed Developments)

Link Name	2041 Future Year (without development) + committed development		2041 Future Year (with full development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
A264 Crawley Road West	185.9	1.19	215.0	1.17
Faygate Lane	1.1	0.46	1.1	0.74
A264 Crawley Road East	146.5	1.13	165.7	1.25
Tower Road	1.3	0.56	1.9	0.17
PM Peak Hour (17:00-18:00)				
A264 Crawley Road West	184.8	1.17	222.0	1.21
Faygate Lane	2.8	0.74	2.4	0.71
A264 Crawley Road East	247.5	1.25	328.0	1.30
Tower Road	0.2	0.17	0.2	0.18

9.80 The Faygate Lane / A264 junction is showing signs of stress in the 2025 scenario. This is expected to worsen in future years. The highest RFC in the 2025 Baseline Scenario is reported on the A264 Crawley Road West arm in the AM peak hour, with an RFC of 1.26. In the 2041 with development scenario, the A264 Crawley Road West and East arms have RFCs above 1.0 in both the AM and PM peak hours. The highest RFC of 1.30 is reported for the A264 Crawley Road East arm in the PM peak hour. No mitigation is proposed as a result of WoI due to the small increases in delay resulting in the development of the Site. The operation of the junction should be reviewed by WSCC / HDC / CBC to understand whether, in line with CBC aspirations that alternative mitigation aimed at reducing background traffic could be delivered at this location.

A264 / Sullivan Dr / A2220 Horsham Road

9.81 The existing arrangement of the A264 / Sullivan Drive / A2220 junction is in the form of a 4-arm roundabout. The scenarios modelled in Junctions 9 for the existing arrangement are shown below in **Table 9.21** to **Table 9.23**.

Table 9.21: A264 / Sullivan Dr / A2220 Horsham Road Junction Capacity Assessment (2025 Baseline)

Link Name	2025 Baseline	
	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)		
A264 (W)	12.7	0.93
Sullivan Drive	139.3	2.07
Horsham Road	1.8	0.60
A264 (E)	1.3	0.53
PM Peak Hour (17:00-18:00)		
A264 (W)	14.0	0.94

Sullivan Drive	19.0	1.06
Horsham Road	2.8	0.73
A264 (E)	1.9	0.64

Table 9.22: A264 / Sullivan Dr / A2220 Horsham Road Junction Capacity Assessment (2029 Opening Year Without Development, No CWMMC + Committed Developments) and (2029 Opening Year With First Phase Development, With CWMMC + Committed Developments)

Link Name	2029 Opening Year (without development) + committed development		2029 Opening Year (with first phase development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
A264 (W)	9.7	0.91	8.7	0.90
Sullivan Drive	159.6	1.97	194.1	2.15
Horsham Road	1.5	0.56	1.4	0.55
A264 (E)	1.6	0.56	1.8	0.59
PM Peak Hour (17:00-18:00)				
A264 (W)	9.1	0.90	9.3	0.91
Sullivan Drive	156.6	1.66	59.3	1.23
Horsham Road	3.3	0.77	3.2	0.76
A264 (E)	2.8	0.72	3.2	0.75

Table 9.23: A264 / Sullivan Dr / A2220 Horsham Road Capacity Assessment (2041 Future Year Without Development, No CWMMC + Committed Developments) and (2041 Future Year, With CWMMC + Committed Developments)

Link Name	2041 Future Year (without development) + committed development		2041 Future Year (with full development) + committed development	
	Queue (PCU)	RFC	Queue (PCU)	RFC
AM Peak Hour (08:00-09:00)				
A264 (W)	17.5	0.96	18.8	0.96
Sullivan Drive	224.5	2.51	348.9	3.00
Horsham Road	1.6	0.59	1.6	0.57
A264 (E)	1.7	0.58	1.7	0.58
PM Peak Hour (17:00-18:00)				
A264 (W)	14.3	0.94	22.3	0.97
Sullivan Drive	208.8	1.97	194.3	1.85
Horsham Road	3.8	0.79	4.8	0.83
A264 (E)	3.5	0.77	7.1	0.88

9.82 The A264 / Sullivan Dr / A2220 junction is showing signs of stress in the AM peak of 2025 scenario from the Sullivan Dr approach. This is due to being a relatively minor road accessing a busy dual carriageway. The rest of the junction operates within capacity and the WoI development does not negatively impact the other arms. Signalising the junction may assist Sullivan Dr drivers exiting but at the expense of the other arms and therefore is not recommended.

9.83 Instead, there would be merits in CBC focussing travel planning efforts on the residents of Bewbush that access Sullivan Drive in order to achieve mode shift here in particular.

Summary

9.84 In summary, mitigation measures are proposed at Ifield Avenue / Warren Drive and at Ifield Avenue / Stagelands junctions to enhance operational efficiency at these locations. No additional mitigation is required at other junctions assessed as they are not expected to be adversely impacted by the Proposed Development.

10 Walking & Cycling Assessment

Introduction

10.1 This section considers the likely impact of the Proposed Development on the sustainable modes of walking and cycling.

Proposed Demand

10.2 The forecast number of external walk and cycle trips associated with the Proposed Development are shown in **Table 10.1** below.

Table 10.1: Forecast walking and cycling trips from the development (external)

Mode	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Bicycle	92	121	213	174	127	301
Walk	79	100	179	147	112	259
Total	**171**	**220**	**392**	**321**	**239**	**561**

10.3 **Table 10.1** shows that the Proposed Development is expected to generate an additional 392 external walk and cycle trips in the morning peak hour and 561 external walk and cycle trips in the evening peak hour.

10.4 In addition to the wide network of pedestrian and cycle routes within the Site, routes to the neighbouring communities will be maintained and enhanced.

Walking

10.5 Although the proposed development provides a large number of services on Site for its residents, there will be some walking from the Site to access further employment opportunities and amenities including Ifield Station. Similarly, some use of the Site's facilities including employment will generate trips on foot by existing local communities.

10.6 The proposed development has pedestrian access points on Rusper Road and across Ifield Meadows to connect to existing communities to the east and south.

Public Rights of Way

10.7 There are a number of Public Rights of Way through the Site and these will be maintained and enhanced where appropriate. There is one exception where a diversion is required in order to facilitate the provision of the Primary School in the neighbourhood centre. This diversion will move a public right of way from the proposed primary school to the edge of this Site. The diversion is not considered to materially affect the route and will be applied for separately.

10.8 Where the public rights of way cross the CWMMC to the north of the Site, pedestrian crossings will be available. The crossing point closest to the urban area will be signalised and the three

northernmost crossings within the country park will have passive provision for signalisation but demand is not expected to require this. These crossing points are shown in **Appendix I**.

Off-Site improvements

10.9 The route along Rusper Road is proposed to be enhanced, with the addition of raised tables across the side streets between the Site access and Hyde Drive junction. It is proposed that this, alongside the stopping up of Rusper Road and subsequent reduction in through traffic, will improve the environment for pedestrians and cyclists.

Cycling

10.10 Cycling within the Site is very well catered for and is a key feature of the masterplan. Within the masterplan as well as the layout promoting cycling for all cyclists, with a choice of routes to serve different purposes (commuting, leisure etc), a range of cycle parking will be provided to enable all types of bikes to be accommodated including the charging of e-bikes. The mobility hubs will also include cycle pumps to enable day to day maintenance, alongside the travel plan which will provide bike maintenance courses to assist.

10.11 Beyond the Site, and a benefit of WOI is the close proximity of large-scale employment within Crawley, Manor Royal and Gatwick Airport. Ensuring cycle connections can facilitate this is a priority.

10.12 Two main routes are being provided to serve that demand. The first to the north of the development is the route along the CWMMC towards Manor Royal, via Ifield Avenue and Langley Walk. This has been identified as benefitting from improvements through the LCWIP. Homes England are committed to funding these. The junction improvements of Ifield Avenue have been designed to ensure that the off-street cycle lane along the length of the east side is maintained. Cyclists can access this via the signalised junction at CWMMC/ Charlwood Road / Ifield Avenue junction.

10.13 The Crawley LCWIP sets out suggested improvements to encourage cycling across the wider Crawley area. In order to ensure the route from WoI to Manor Royal is a high-quality cycle route, Homes England are committed to funding improvements along route M from the Charlwood Road / CWMMC junction to Langley Walk (route M) and then along route P (from Ifield Avenue to A23 London Road.

10.14 The second route, to the south via Rusper Road provides access to Crawley town centre via Ifield Station. This will comprise of LCWIP improvements along route L that will facilitate both pedestrians and cyclists as set out above.

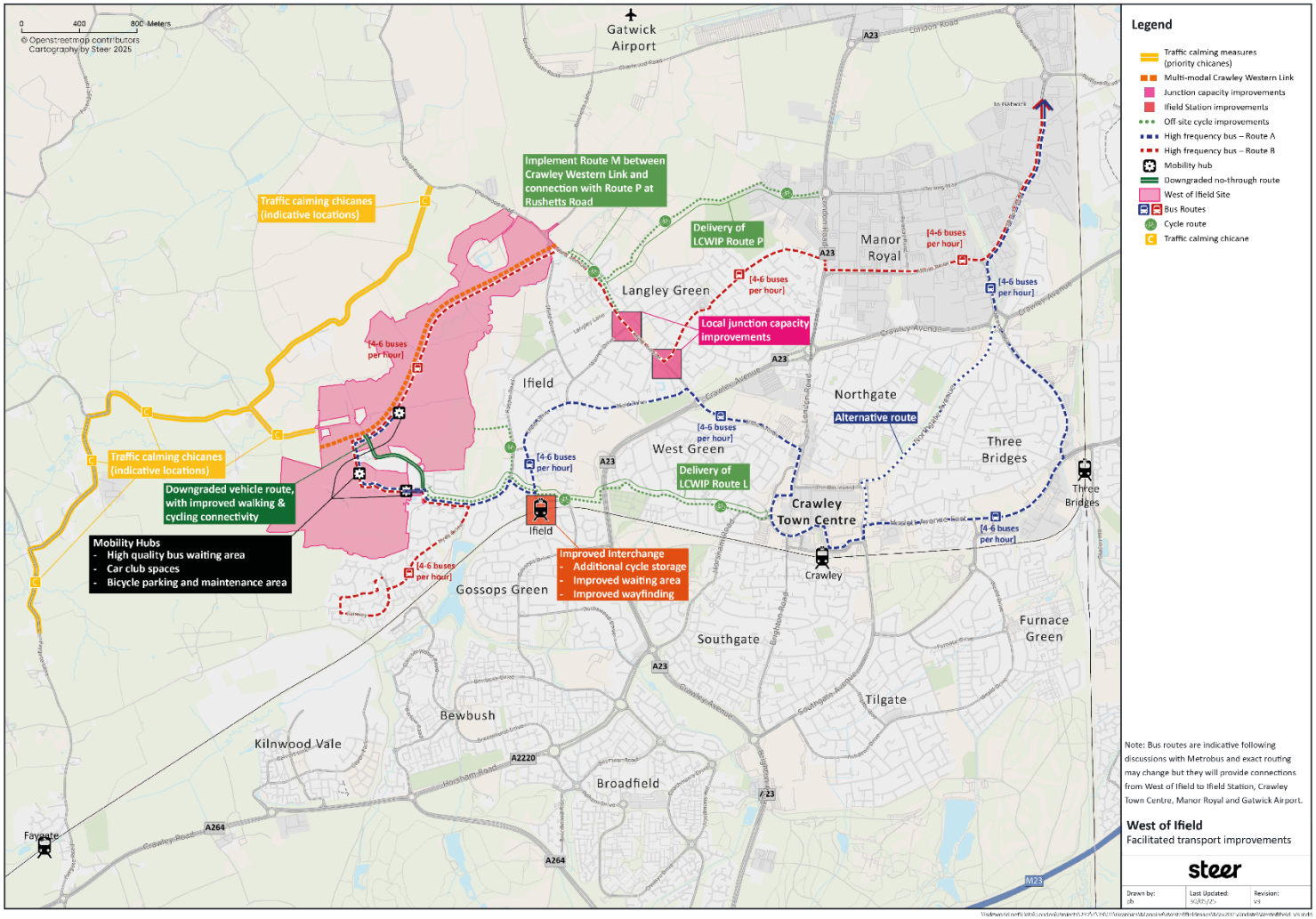
10.15 Route L in the Crawley LCWIP sets out suggested improvements. Homes England will provide funding for these, secured through the S106. Specific improvements that will be added to those in the LCWIP are the raised tables on the side roads along Rusper Road between the Site entrance and Hyde Drive. A design for this is included in **Figure 6.2**.

10.16 The routes with improvements proposed are shown on **Figure 10.1** and **Appendix Q**.

10.17 While the findings of the LCWIP are considered robust and seek to provide a balance between improving pedestrian and cycle infrastructure and retaining a viable highway network, given the amount of time which will have passed between the drafting of the LCWIP and the implementation of any infrastructure, it is recommended that a review of the LCWIP proposals be undertaken. The review would consider whether there are opportunities to review and refresh the approach being undertaken within the identified corridors, specifically in light of the

most recent guidance on pedestrian and cycle design guidance, such as LTN1/20. Where there is an opportunity to deliver a greater level of ambition within the prescribed corridor, and within similar financial constraints, this should be considered, to ensure that wherever feasible, the improvements are in line with best practice, at the time of delivery.

Figure 10.1: WoI Facilitated Transport Improvements



11 Public Transport Impacts

11.1 **Table 11.1** below presents the forecast increase in public transport trips associated with the Proposed Development for the morning and evening peak hours.

Table 11.1: Forecast public transport trips from the development (external)

Mode	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Train	65	74	139	106	78	184
Bus	297	276	573	418	346	765
Total	**362**	**350**	**712**	**524**	**424**	**948**

11.2 As illustrated in **Table 11.1**, a total of 712 additional external passengers during the morning peak hour and 948 passengers during the evening peak hour are forecast to travel by public transport.

11.3 As described in **Section 2**, the Site is accessible by bus with four bus routes (2, 21, 200) stopping at the nearby bus stops on Ifield Green, Ifield Drive and Hyde Drive. These bus stops are accessible within 1.4km walking distance of the Site. While outside of a typically accepted distance to a bus stop, these services offer a frequent service to a number of key destinations and as such some residents are likely to walk this distance to a stop.

11.4 The development will add a further two bus services (route A and B) as detailed in **Section 5**. These will have a combined frequency of 5-6 minutes. Although the existing bus services do provide greater flexibility in route, for the majority of journeys the additional new routes will provide an excellent level of service with high quality interchange possibilities within Crawley Bus Station or further north at Gatwick Airport, to East Surrey Hospital for example.

11.5 Overall taking into account and existing and proposed bus provision within proximity of the Site, there is a combined frequency of 16 buses per hour at the nearby bus stops in both the morning and evening peak hours. The existing and proposed bus routes will be able to accommodate the additional 573 external bus passengers in the morning peak hour and 765 external bus passengers in the evening peak hour.

11.6 Ifield Rail Station is located approximately 1.2km from the Site. Ifield Rail Station currently has a regular service at all times of day. During the morning peak, two trains per hour are provided towards London, Crawley, Three Bridges and Gatwick Airport, with five trains per hour towards Horsham. During the evening peak, five trains run from London to Ifield and two trains per hour run from Horsham to Ifield. During off-peak periods, two trains per hour typically serve Ifield in each direction.

11.7 The existing and proposed rail services from Ifield Rail Station will be able to accommodate the additional 139 external rail passengers in the morning peak hour and 184 external rail passengers in the evening peak hour.

Summary

11.8 The projected public transport trips generated by the masterplan can be accommodated within the existing and proposed transport infrastructure provision. The introduction of additional Fastway services, along with planned improvements at Ifield Station represents a significant enhancement in local public transport provision. These upgrades will benefit both the existing community and future residents of the Proposed Development.

12 Off-Site Mitigation

Introduction

12.1 There is a growing body of evidence suggesting that the "predict and provide" approach to transport planning—where future infrastructure is based on extrapolating past travel trends—can lead to unintended consequences. This method often results in additional road capacity being quickly absorbed as travel behaviour adapts to the increased availability. This approach can lead to the over provision of highway infrastructure. often at the expense of walking, cycling and public transport services thereby undermining efforts to promote sustainable travel.

12.2 The Transport Strategy for WoI is centred on creating a sustainable community which supports residents, employees and visitors to prioritise sustainable modes. The Applicant is committed to making a significant contribution towards sustainable transport initiatives, including the delivery of Travel Plan measures such as new bus routes and enhancements at Ifield station. These efforts are aimed at reducing reliance on the private car use and supporting long term behavioural change in favour of more sustainable travel options.

12.3 This, along with changes in travel behaviours (fewer daily trips overall particularly by car due to more home working, online shopping replacing physical shopping trips, reduced driving licence holding, greater transition to less secure lower paid jobs so less disposable income[2]), further supports the need to move away from a 'predict and provide' approach. It is therefore proposed that contributions towards targeted highway and junction improvements, are on a 'decide and provide' approach to highway capacity rather than 'predict and provide' to ensure that investment is targeted at improving conditions for all users. This will avoid the provision of highway capacity improvement schemes which have typically been implemented at the expense of public transport, walking, and cycling. The impacts of the development will be monitored regularly with a review of observed trips against anticipated trips, and whether junctions are operating as anticipated. This will allow the mitigation strategy to be managed, with interventions either coming forward earlier or later than anticipated. Where impacts are not as predicted, then remedial measures will be implemented. This is known as a 'Monitor and Manage' approach. The trip generation and traffic impacts will be monitored throughout the build period plus a period to be agreed with WSCC post final occupation.

12.4 This will be supported by a Monitor and Manage approach which will include the following key elements:

- Appointment of Travel Plan coordinator to regularly meet with WSCC Highways
- Ongoing monitoring of trip generation from the Site to be closely monitored through regular travel surveys
- Continuous observation of conditions on the local highway network Implementation of remedial measures if trip generation exceeds forecast levels. These measures may include

[2] TRICS Guidance Note on Changes in Travel Behaviour, July 2019

accelerating modal shift initiatives, or delivering off Site interventions to provide the necessary capacity enhancements.

Proposals

12.5 As set out above, the need to ensure that traffic mitigation is only put in place when absolutely required with funds prioritised to support more non-car modes is increasingly important.

12.6 **Table 12.1** sets out the proposed measures for WoI and whether they are essential or reviewable (decide & provide). The need for junction signalisation will be monitored through annual traffic surveys post 2026 and if deemed necessary the funds secured through S106 could be drawn down.

Table 12.1: Proposed Mitigation Measures

Measure	Priority	Trigger	How Will it be Implemented / Secured	Benefits
Crawley Western Link multi-modal corridor	Essential	Prior to occupation of any building other than the Secondary school	Secured via S106 agreement	Significant transport benefits and inviting experience for those who use the CWMMC. Cycle lane and footway will be provided, and signalised crossing available.
Delivery / Contribution to bus services (route A and later route B)	Essential	Staged. The Applicant will provide a capped / specified financial contribution to be phased as revenue support to WSCC to secure the necessary bus services to establish the public transport strategy and achieve targeted mode share. This will be aligned with the revenue model and assumptions discussed with Metrobus and provided to WSCC	Secured via S106 agreement	Improve bus journey times of proposed development site users to key locations
Ifield Station Interchange Improvements contribution	High	Prior to the occupation of 550 homes.	Secured via S106 agreement	Enhance the station experience, including the potential for additional cycle parking, lighting, enhanced station entrance and enhanced waiting areas to facilitate modal change.

LCWIP Route L contribution	Essential	Subject to more detailed trigger point regarding Traffic Regulation Order (TRO)	Secured via S106 agreement	Improve pedestrian and cycle infrastructure across LCWIP Route L
LCWIP Route M contribution between CWMMC junction and Langley Drive	Essential	Trigger point to be agreed with WSCC / LPA	Secured via S106 agreement	Improve pedestrian and cycle infrastructure across LCWIP Route M between CWMMC junction and Langley Drive
LCWIP Route P contribution between Ifield Avenue and A23	Essential	Trigger point to be agreed with WSCC / LPA	Secured via S106 agreement	Improve pedestrian and cycle infrastructure across LCWIP Route M between Ifield Avenue and A23
Signalising Ifield Avenue / Warren Drive junction or contribution towards similar scheme	Reviewable (D&P)	If annual monitoring data collected as part of Travel Plan Monitoring and Decide & Provide Monitoring and Mitigation Plan suggests this is required	Secured via S106 agreement	Improves the capacity of the junction and reduces queuing (compared to existing junction arrangement)
Signalising Ifield Avenue / Stagelands junction or contribution towards similar scheme	Reviewable (D&P)	If annual monitoring data collected as part of Travel Plan Monitoring and Decide & Provide Monitoring and Mitigation Plan suggests this is required	Secured via S106 agreement	Improves the capacity of the junction and reduces queuing (compared to existing junction arrangement)

12.7 It is proposed that these are secured through the S106 agreement and then reviewed as part of the Monitor and Manage approach .

13 Construction Traffic

Introduction

13.1 For the purposes of providing a robust assessment prior to the appointment of a Principal Contractor, construction traffic trip generation has been calculated for the development and distribution has been constrained to primary routes surrounding the Site.

13.2 It has been assumed that the construction Site will operate five days per week, with the typical hours of construction being between 08:00-17:00 Monday to Friday and 09:00-13:00 on Saturday.

Construction Trip Generation Assessment

Construction Vehicles (Loading, Unloading, Construction Activity)

13.3 An outline planning application is being submitted for the WoI development and as such there is not the degree of certainty on the quantity and bulk of materials, construction programme and Site logistic information required for a detail appraisal of construction traffic effects. Therefore, in order to calculate the likely construction traffic generation from the Site, reference has been taken from a TRICS research report produced by JMP in 2008 on construction traffic alongside engineering judgement.

13.4 The report identifies a 'Ready Reckoner', based on data collected by Constructing Excellence to record 'Commercial Vehicle Movements KPI' as part of the 2007 UK Construction Industry Key Performance Indicators. The research indicates that the total recorded movements onto a construction Site per £100,000 of project value/capital expenditure equates to 29.4 one-way trips (58.8 two-way trips).

13.5 The construction traffic trip rate outlined above includes all vehicle types visiting the construction Site, but excluded trips made by Site operatives by private car for instance. Based on the JMP report (2008), the breakdown of vehicle types assumed for the construction traffic assessment is shown below in **Table 13.1**.

13.6 No pro-rata adjustment has been made to inflation and therefore this is considered to be a robust assessment.

Table 13.1: Indicative Construction Vehicle Proportions

Vehicle Type	Vehicles less than or equal to 7.5T (LGVs)		Vehicles greater than 7.5T (HGVs)				
	Car/Pick Up/3.5T Van	7.5T Box/Panel Van	Low Loader and Artic	Ready Mix Concrete Truck	Mobile Crane	Skip Lorry	32T Tipper Truck
% of Trips	10.45%	18.07%	2.38%	22.77%	0.05%	1.29%	45.07%

13.8 This gives an overall breakdown of (consideration has been taken for rounding errors shown in Table 13-1):

- LGVs: 28.5%; and
- HGVs: 71.5%.

13.9 The phasing of development across the different land uses is not linear and varies across the build out period. To give further context, the indicative build out of the 3,000 residential dwellings is summarised in **Table 13.2** below.

Table 13.2: Indicative construction phasing (residential)

Construction Year	Total
2029	25
2030	100
2031	175
2032	225
2033	300
2034	300
2035	300
2036	298
2037	300
2038	300
2039	288
2040	250
2041	138

13.10 A construction traffic generation has therefore been calculated, using the above one-way and two-way construction trip rates to the project value/capital expenditure per development land use, and taking into consideration the indicative construction and build-out programme.

Site Operatives Vehicles

13.11 An additional construction vehicle trip generation assessment has been calculated for Site operatives arriving / departing at the Site. It is typically assumed that Site operatives would arrive via cars/3.5T vans (LGVs). The Site operative construction vehicle trip generation assessment has been split into residential and non-residential land uses due to the differing methodology employed.

Residential Land Use

13.12 Based on industry knowledge and experience, it is assumed that six Site operatives take 3 months to build one residential dwelling, and taking this into account it can be considered that one Site operative will construct four dwellings per year (assuming operatives work across 12 months per year).

13.13 This information has been used and applied to the number of residential dwellings to be built per construction year (as shown in **Table 13.3**) to determine the number of operatives associated with each construction year. The residential dwellings to be built per construction year has also been applied to the number of dwellings anticipated to be constructed every 3 months. Applying these calculations results in the daily Site operative one-way and two-way

vehicle trip generation. Given the location of the Site and availability of local bus routes and national rail services, it is assumed that 75% of the daily Site operatives would arrive/depart by private car/3.5T vans, with the remaining 25% car sharing or using public transport and sustainable modes of travel.

13.14 A summary of the number of Site operatives expected per day for each development land use is provided below in **Table 13.3**.

Table 13.3: Indicative number of Site operatives and resultant vehicle trips (residential uses)

Construction Year	No. of Dwellings	Daily Site Operative Vehicle Trips	
		One-Way	Two-Way
2029	25	14	28
2030	100	56	113
2031	175	98	197
2032	225	127	253
2033	300	169	338
2034	300	169	338
2035	300	169	338
2036	298	168	335
2037	300	169	338
2038	300	169	338
2039	288	162	324
2040	250	141	281
2041	138	78	155

Non-Residential Land Uses

13.15 Information provided by the Applicant has informed the number of daily Site operatives arriving/departing the Site per non-residential development land use. Given the location of the Site and availability of local bus routes and national rail services, it is assumed that 75% of the daily Site operatives would arrive/depart by private car/3.5T vans, with the remaining 25% car sharing or using public transport and sustainable modes of travel.

13.16 A summary of the number of Site operatives expected per day and the resultant vehicle trips for each development land use is provided below in **Table 13.4**.

Table 13.4: Indicative number of Site operatives and resultant vehicle trips (non-residential uses)

Land Use	Site Operatives Per Day	One-Way Vehicular Trips	Two-Way Vehicular Trips
Secondary School	70	53	105
Primary School	35	26	53
River Valley – Employment	50	38	75
River Valley – Commercial	500	375	750

Summary

13.17 The trip generation assessment for construction vehicles (loading, unloading, construction activity) and Site operatives per land use has been applied together to result in the overall construction vehicle trip generation for each construction year.

13.18 The Construction Traffic Management Plan (CTMP) produced by Arcadis in support of the HPA sets out the two routes used by construction vehicles during Phase 1 of the development. Thereafter, all construction vehicles are anticipated to access the Site via the Charlwood Road junction.

Peak Construction Year

13.19 The construction vehicle trip generation assessment indicates that the peak construction year will occur in 2033-2035, with a total of 648 one-way and 1,295 two-way (AADT) construction vehicles anticipated to be associated with the construction of the development. Of these 95 are two-way HGV trips.

13.20 Although the construction will be a temporary state, it is suggested that additional mitigation is put in place to reduce the impact of the additional HGVs during the construction phase. This would be secured through the S106 with detail set out within the CEMP but reasonable measures could include the restriction of vehicle movements through the peak hours to reduce the impact on sensitive receptors, maximising the use of consolidation centres and implementing a workforce travel plan to reduce vehicle trips. Abnormal loads would be programmed in advance and discussed with WSCC.

13.21 The full impact is assessed in the Transport & Accessibility Chapter of the ES submitted alongside this Outline Planning Application.

Construction Vehicle Routing

13.22 The distribution of the total construction vehicle traffic generation has distributed to the primary routes surrounding the Site. An illustration of the route's construction vehicles will use to route to/from the Site is shown in **Appendix P**.

13.23 Routes have been determined based on:

- Minimising impact on surrounding villages, and using primary route strategic route network;
- Avoid routes with narrow roads
- Avoiding cycle routes
- Avoiding the Crawley Air Quality Management Zone

13.24 An indicative proportion of vehicles have been assigned to each route to recognise the strategic nature of the roads and where they are likely to be coming from.

Construction Logistics Plan (CLP)

13.25 Each RMA will have their own detailed CLP which will aim to reduce the environmental impact of the construction, improve the safety for all road users, reduce vehicular impact on peak hour traffic and reduce the number of deliveries. Once a principal contractor has been appointed for each RMA, the construction volumes and programme set out above can be refined accordingly. The CLP will then set out the precise programme, volumes, routing, daily schedule and measures to encourage mode shift. This will include use of the bus services that are being put in place very

early to enable them to be used by construction workers as well as the developments' residents / employees / visitors.

Construction Environmental Management Plan (CEMP)

13.26 To mitigate the environmental effects associated with construction traffic, a Construction Environmental Management Plan will be implemented, building on the detail in the CLP and will be secured by condition of the S106 agreement. This document will outline appropriate routing of construction vehicles, hours of operation and any driver training requirements. The document would be included in a construction method statement which would be produced once the Principal Contractor is appointed and further information on the quantity and bulk of materials, construction programme and Site logistics is available, and would also provide for:

- The parking of vehicles by operatives;
- Site visitors;
- The loading, unloading and storage of plant materials;
- Wheel-washing facilities;
- The routing of construction vehicles; and
- A programme of works (including measures for other traffic management).

14 Summary and Conclusions

Summary

14.1 The Proposed Development at the Site has been thoroughly assessed within the context of the wider Local Plan growth and the forthcoming Gatwick DCO. The analysis demonstrates that, with the implementation of the masterplan design and associated Travel Plan measures, the Proposed Development can be accommodated within the local highway network. Aside from some localised junction improvements, no significant mitigation is required to support the scheme.

14.2 The transport strategy for the Proposed Development adopts a forward thinking approach, aligning with the 'decide and provide' approach. While mitigation measures have been identified, a robust monitoring framework will be implemented to ensure that interventions are only introduced if necessary. This approach helps to avoid over provision of infrastructure that could inadvertently encourage less sustainable travel behaviours, thereby supporting long term modal shift objectives. This document has considered the existing situation, development proposals, forecast trip generation and likely impacts of the Site from a transport, highways and access perspective.

14.3 In line with Vision Led Decide and Provide development principles, as required by CBC, HDC, WSCC and National Highways the transport vision for the Site has been set out below.

14.4 The Transport Strategy for the Site focuses on sustainable transport and draws upon best practice and government guidance to promote active travel and reduce dependency on private vehicles. This is complementary to the wider Horsham District Council (HDC), Crawley Borough Council (CBC) and West Sussex County Council (WSCC) Transport Plan. This accords with the new Active Design guidelines by Active Travel England (ATE) (2023).

14.5 The Transport Strategy, whilst accommodating vehicle ownership and use, seeks to capitalise on changing attitudes and policy towards sustainable transport against the backdrop of the Climate Emergency and legally binding commitments for Net Zero Carbon emissions by 2050. Accordingly, key transport decarbonisation principles including reducing the need to travel, and measures to prioritising active travel and public transport as the natural first choice for journeys are integrated into this Transport Strategy.

14.6 The masterplan layout has been designed to prioritise and enable active travel first and then public transport. As well as ensuring the physical layout and provision of facilities (e.g. cycle parking) and encouraging active travel, Homes England are committed to delivering a package of sustainable transport measures that further encourage non-car travel. The strategy supports active travel, creates active high-quality places and spaces and it ensures these spaces are activated through their design and the networks created to connect them.

14.7 The Crawley Transport Strategy, *New directions for Crawley – Transport and access for the 21st century* (March 2020), has an emphasis on encouraging the use of public transport and active

travel in preference to increasing highway capacity and has informed the Transport Strategy for West of Ifield. These themes are consistent with objectives outlined in the draft *West Sussex Transport Plan 2022 to 2036,* particularly the need to reduce travel by car by enabling local living. Policy 42 – *Sustainable Transport* in the emerging HDC Local Plan (Regulation 18) includes the same commitment to developing integrated communities connected by a sustainable transport system *"In order to manage the anticipated growth in demand for travel, development proposals which promote an improved and integrated transport network, with a re-balancing in favour of non-car modes as a means of access to jobs, homes, services and facilities, will be encouraged and supported."*

14.8 The Transport Strategy also promotes flexible design approaches which are integrated into the emerging masterplan to future proof for changing travel behaviours and advances in technology to realise a sustainable community which could form the first phase of a wider strategic development opportunity west of Crawley.

14.9 The transport, access and movement strategy is summarised below:

- Phased mixed use development of up to 3,000 homes, including a range of flats and houses, of which 35% will be affordable, with associated parking developed on a phased reduction basis.
- Employment uses including flexible office and innovation space, neighbourhood centre and associated community facilities, including a primary and secondary school, and minimum commitments to health centre, community centre, early year nursery and Local Leisure facility, alongside small scale centre uses including retail and potential hotel to internalise trips and provide real opportunity to undertake day to day routines without the need to travel by private car.
- Delivery of the first phase of the Crawley Western Multi-Modal Corridor, a new road with a dedicated bus lane and regular traffic lane in each direction, to form a connection from Charlwood Road to the east and the primary access route to the development.
- A primary street forming a spine road incorporating primary and secondary street connections, together with parking and loading bays, street lighting and fixtures.
- Active travel provision with dedicated cycle ways and footways within the primary street.
- Mobility Hubs and provision for bus transport with bus stops, car club bays, and bus priority through a bus-only connection to Rusper Road in the east.
- New bus services
- Local amendments to existing public rights of way.
- Improvements to off Site walking and cycling routes to key destinations including an off-Site pedestrian and cycle link across Ifield Meadows, off-Site improvements to connect to Ifield station via public transport and cycle links, and through safeguarded expansion to multi-modal corridor provided under the detailed element.
- A travel plan aimed at reducing car trips, single occupancy trips and promoting sustainable travel

14.10 The Site's access, servicing and parking strategies have been developed in line with best design practice and relevant policy requirements and has been agreed by WSCC Highways during pre-application scoping discussions.

Off-Site Mitigation Proposed

14.11 In addition to the substantial measures set out in the Travel Plan to support the uptake of non-car modes, the following mitigation is proposed to ensure that the Proposed Development is sustainable and the impact on the surrounding neighbourhoods is minimised.

Walking & Cycling

- Provision of funding, secured by S106, for LCWIP route L, part of routes M and P
- Additional cycle parking at Ifield Station

Public Transport

- Provision of two Fastway bus services across the Site, with the first operational prior to the first residential property being occupied.
- Funding of improvements at Ifield Station to improve interchange, including additional cycle parking (exact improvements subject to GBR feasibility study).

Junction improvements

14.12 It is proposed that two junctions will be signalised:

- Ifield Avenue / Warren Drive
- Ifield Avenue / Stagelands

Conclusion

14.13 The Transport Assessment demonstrates that the Proposed Development can be accommodated alongside Local Plan growth, including the proposed Gatwick DCO. The Applicant is committed to providing funding to secure measures that ensure the Proposed Development is sustainable through the Travel Plan.

14.14 With regards to the NPPF, the proposal is in line with paragraph 115 on the following basis:

- The masterplan proposals and the proposed mitigation strategy promotes.
- Sustainable transport modes are prioritised, with the masterplan delivering a well-connected development, which aims to internalise trips, and provide real opportunities for people to undertake day to day routines, without the need to use a private car.
- Through the access and movement strategy, including the delivery of the CWMMC and the potential to link into off-Site improvements, safe and suitable access to the Site can be achieved for all users, and also provides benefits to existing residents locally, i.e. improved pedestrian and cycle infrastructure, new bus routes and improvements to local rail.
- While in outline the masterplan has been designed in line with best practice and guidance. The Site access is designed to meet the requirements of the Site and act as part of the future CWMMC, with segregated pedestrian and cycle facilities. Provision has been made for mobility hubs, reduced levels of parking, and other transport elements such as public transport and active modes; and
- The impacts arising from the development, in terms of capacity and congestion have been identified and where necessary, suitable mitigation identified to either directly address them, or to provide alternative mitigation options designed to promote pedestrian, cycle and public transport use which will off-set the impacts of the scheme. It has been shown that in terms of capacity, congestion and highway safety any impacts can be cost effectively mitigated to an acceptable degree through a vision-led approach.

14.15 The impacts on the local highway network have been thoroughly assessed within this TA and appropriate mitigation has been identified. WSCC, as the Highway Authority, has considered the

cross-boundary implications related to HDC and CBC. WSCC has confirmed that the impacts have been sufficiently assessed and that the Proposed Development can proceed without resulting in any significant adverse effects, in line with the 'severity' threshold set out in the NPPF Paragraph 115 (20254).

14.16 Paragraph 116 of the NPPF states "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."

14.17 The proposals are in full compliance with Paragraph 115 of the NPPF. The assessment has demonstrated that the impacts on highway safety are acceptable and any residual cumulative impacts are not considered severe.

14.18 Accordingly, the Proposed Development is acceptable in transport and highways terms. In line with paragraph 116 of the NPPF, there are no grounds to refuse the Proposed Development on highway related impacts.

Appendices

A West of Ifield Transport Strategy

B Trip Generation and Scenario Planning Scoping Note

C Active Travel England Assessment Technical Note

D PIA Data

E Transport Policy and Guidance Technical Note

F Crawley Western Link Cross-Sections

G Charlwood Road Proposed Access Layout Drawing

H Rusper Road Proposed Access Layout Drawings

I Movement and Access Parameter Plan

J Indicative Phasing Strategy

K Crawley Town Model, List of Cumulative Schemes

L Northern Runway Project Highway Scheme Plans

M Junction 9 Modelling Output Reports

N LinSig Modelling Output Reports

O Proposed Ifield Avenue / Warren Drive and Stagelands Junction Layouts

P Indicative Construction Vehicle Routing Plan

Q Crawley LCWIP, Route Design Plans

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