



LAND EAST AND WEST OF HYDE END ROAD, SHINFIELD

TRANSPORT ASSESSMENT

BLOOR HOMES (SOUTHERN) AND THE UNIVERSITY OF READING

06 MAY 2025





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1.0 Introduction

Context

- 1.1. This Transport Assessment has been prepared by Abley Letchford, on behalf of Bloor Homes (Southern) and the University of Reading, in relation to the proposed residential development at Land to the east and west of Hyde End Road at Shinfield located to the south of Reading. **Figure 1.1** below shows the site in its local geographic context.

Figure 1.1: Site Location



Development Proposals

- 1.2. This Transport Assessment relates to a "Full application for the erection of 184 no. dwellings (C3 Use Class) together with associated hard and soft landscaping, drainage infrastructure, parking, access and associated works" at Hyde End Road.
- 1.3. It is proposed that the western parcel would be accessed via a new simple priority junction to be formed onto Appleton Way. Access into the eastern parcel would make use of the existing Langley Mead SANG priority junction onto Hyde End Road.
- 1.4. A copy of the proposed Site Layout for the development is included at **Appendix A** of this report.



Form of Assessment

- 1.5. The planning application is a full application and as such the internal layout of the development alongside details for all points of vehicular and non-vehicle accesses are to be determined in detail.
- 1.6. Based on the thresholds set out in Appendix B of 'Guidance for Transport Assessments', published by DfT in 2007, the scale of development proposed requires a Transport Assessment Report to be prepared to analyse the impact of the development.
- 1.7. A Transport Scoping Report (Abley Letchford Report Ref: HD068-R001B) was submitted to Wokingham Borough Council (WBC) in November 2024. The scoping exercise set out the methodology of assessment and included the approach that should be taken to appraise the transport aspects of the proposed development. Similarly, the approach being taking in respect of the traffic modelling methodology was presented within a separate report (Abley Letchford Report Ref: HD068-R002) which was also submitted to Wokingham Borough Council in September 2024 for review.

Structure of the Transport Assessment Report

- 1.8. This Transport Assessment Report has been produced to demonstrate the suitability of the proposed development in transport terms with all modes of travel considered and is structured as follows:
 - Section 2 : Transport Policy
 - Section 3 : Existing Transport Conditions
 - Section 4 : Development Proposals
 - Section 5 : Travel Demand
 - Section 6 : Wokingham Strategic Traffic Model (WSTM)
 - Section 7 : Assessment of Vehicular Impact (2032)
 - Section 8 : Assessment of Vehicular Impact (2038)
 - Section 9 : Appraisal of Non-Car Travel
 - Section 10 : Summary and Conclusions



2.0 Transport Policy

Context

- 2.1. The following national and local planning policies have been reviewed and analysed with relevance to the development proposals and their locational context.
- National Planning Policy Framework (Updated December 2024).
 - NPPG 'Travel Plans, Transport Assessments and Statements in Decision-Taking' (March 2014).
 - Wokingham Borough Adopted Core Strategy (2006-2026).
 - Wokingham Borough Third Local Transport Plan (LTP3) 2011-2026.
 - Wokingham Borough Council : Emerging Local Plan Update 2023 - 2040
 - Shinfield Parish Council Neighbourhood Development Plan (February 2017).

National Planning Policy Framework (December 2024)

- 2.2. The Department for Levelling Up, Housing and Communities published the 'National Planning Policy Framework' (NPPF) document in March 2012 which has been revised several times, most recently in December 2024. The NPPF sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other developments can be produced.
- 2.3. The purpose of the planning system is to contribute to the achievement of sustainable development. So that sustainable development is pursued in a positive way, at the heart of the framework is a presumption in favour of sustainable development.
- 2.4. The NPPF states that transport issues should be considered from the earliest stages of plan-making and development proposals. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.
- 2.5. In respect of promoting sustainable travel the NPPF advocates that planning policies and decisions should consider whether:
- *"Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
 - *Safe and suitable access to the site can be achieved for all users;*
 - *The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*



- *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach."*

2.6. The guidance advises that, subject to the above considerations, development should not be prevented or refused on transport grounds unless 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.

Planning Practice Guidance (March 2014)

- 2.7. The National Planning Practice Guidance web-based resource was launched in March 2014 by the Department for Communities and Local Government. The guidance covers all aspects and procedures of the planning process and supports the National Planning Policy Framework.
- 2.8. The guidance states that supporting transport assessments for planning applications are important as they should support national planning policy which sets out that the planning process should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.
- 2.9. Such assessments should be proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible. Further to this they should be tailored to particular local circumstances.

Wokingham Borough Adopted Core Strategy (2006-2026)

- 2.10. The Wokingham Borough Core Strategy was adopted in January 2010 and sets out a vision for how the Borough will develop in the period to 2026. Policies of relevance to this development site include:
- CP1 establishes a requirement to provide sustainable development and in particular to provide attractive, functional, accessible, safe, secure and adaptable schemes with the aim of enhancing the overall sustainability of the area through minimising impact on the environment, including access to facilities.
 - CP4 establishes the need for proposals to demonstrate that there is either sufficient infrastructure capacity or that this can be readily provided as part of any scheme. Infrastructure includes roads and other transport requirements.
 - CP6 establishes a desire to manage travel demand rather than designing for the private car. The aim of policy CP6 is to ensure that all proposals achieve sustainable development and that people have the widest range of choice in selecting transport modes thereby helping to reduce the use of the private car.



- CP10 sets out a need to make improvements to the Strategic Transport Network including improvements to the quality and frequency of public transport services along any part of the network and improvements to increase the use of bicycles, including cycle paths.
- CP19 establishes the need for a proposed mixed use strategic development South of the M4. The development areas encompass land at Three Mile Cross, Spencers Wood and Shinfield and requires the delivery of the Shinfield Eastern Relief Road.

Wokingham Borough Third Local Transport Plan (LTP3) 2011-2026

- 2.11. The Third Local Transport Plan for Wokingham Borough (LTP3) covers the fifteen year period between 2011-2026. The main objective articulated by the LTP3 is to provide a cost effective, inclusive transport network that enhances the economic, social and environmental prospects of the Borough whilst promoting the safety, health and wellbeing of those that use it.
- 2.12. The following five goals for the LTP3 are identified which reflect the local priorities set out in Wokingham Borough's Sustainable Community Strategy and the overarching national transport priorities:
- To have a resilient, safe highway network that balances capacity for all users, enhances the economic prospects of the Borough, and promotes sustainable travel.
 - To work with partners to promote walking and cycling as a health enhancing physical activity for all of our residents through providing; connected, convenient, safe and signed pedestrian networks across the Borough to enhance existing networks; new cycleways integrated with the existing cycle network; and improved cycle parking at stations, businesses and schools.
 - To promote an integrated and inclusive public transport network that provides a convenient, acceptable, reliable and affordable alternative to car travel.
 - To enable people who live, visit and work in the Borough to make informed, safe and sustainable travel decisions from a range of transport options.
 - To manage the demand for travel in order to ensure that people have a high level of access to different destinations, with sufficient choice, whilst minimising the adverse effects of congestion.



Wokingham Borough Council – Local Plan Update 2023-2040: Proposed Submission Plan

- 2.13. Wokingham Borough Council submitted a new Local Plan to the Secretary of State for examination in February 2025. Once adopted It will replace the current Core Strategy and Managing Delivery Local plans. Due to the early stage reached in the preparation of the Local Plan only limited weight can be attributed to the policies, however it shows a direction of travel and is a material consideration in the determination of the planning application.
- 2.14. Of note is that the land east and west of Hyde End Road site is proposed to be allocated for residential development as set out under Draft Policy SS14.

Shinfield Parish Council Neighbourhood Development Plan (February 2017)

- 2.15. Following examination and a referendum, the Shinfield Parish Council Neighbourhood Plan is part of the WBC's Development Plan and will be given full weight in the determination of all planning applications within Shinfield Parish.
- 2.16. The Neighbourhood Plan seeks to achieve the objectives of:
- Ensuring that new developments enhance the character of existing settlements;
 - Developing a vibrant and prosperous neighbourhood by encouraging development that supports a good range of housing, schools, shops and services that meets the needs of local people and protects the quality of the local environment.
 - Providing new and diverse leisure and recreational activities in order to promote healthy and crime free lifestyles for everyone.
- 2.17. In relation to transport and highways the Neighbourhood Plan sets out the following policies in Policy 4 stating that all development proposals should demonstrate appropriate levels of accessibility and highway safety. The following issues should be considered when forming such proposals.
- Restricting traffic speed through traffic calming measures such as the use of chicanes within residential streets, restricted speed limits within development roads and pedestrian priority zones.
 - Make the fullest possible use of public transport, walking and cycling to school, work places and local amenities, through measures such as (but not limited to):
 - The provision of additional pedestrian footpath and cycle routes;
 - Accessibility improvements to bus stops from existing developments;
 - Real time travel information at bus stops;



- Practical walking routes from developments to public transport, schools, work places and local amenities with proper footpaths, street lighting and safe crossing points.
 - Steps to actively encourage the integration of walking and cycling routes and facilities into key destinations within the Parish
 - Provision of safe routes for equestrians.
- 2.18. Policy 5 of the Neighbourhood Plan relates to parking. The Parish Council have stated that developments should look to deliver a parking provision of one parking space per bedroom either on-site or on-street depending on the parking capacity available in the area, unless otherwise justified. Clearly the parking levels provided, whilst being sympathetic to the aspirations of the Neighbourhood Plan, will also have to take account of Wokingham Borough Council's adopted parking standards, as set out in their Managing Development delivery DPD which was adopted in February 2014.

Summary

- 2.19. The overarching principle of national and local transport policy is for new development to be located where it is accessible by a range of transport including walking, cycling and public transport. Safe access and appropriate parking should be provided. Fundamentally, development should only be prevented from coming forward for transport reasons if the residual impact would be severe.
- 2.20. The following sections of the Transport Assessment describe how the development proposal complies with these national and local policy considerations.

3.0 Existing Transport Conditions

Context

- 3.1. The location of the proposed development in the context of the neighbouring area is depicted at **Figure 3.1** below.

Figure 3.1: Site Location



- 3.2. The proposed site is currently undeveloped land used for agricultural purposes. Hyde End Road routes north-south between the two parcels. The existing village of Shinfield is located to the north while Tanners Copse and Langley Mead SANG are then located to the east and south east. High Copse and agricultural land is located to the south west of the site.
- 3.3. This Section of the Transport Assessment Report examines the existing transport provision in the vicinity of the site with all modes of travel considered.



Local Highway Network

Hyde End Road and Appleton Way

- 3.4. The vehicular accesses to the eastern and western parcels of the development will be located on Hyde End Road and Appleton Way respectively.
- 3.5. Hyde End Road runs north to south and separates the eastern and western parcels of the development. Hyde End Road takes the form of a single carriageway road with a varying carriageway width which is generally 5.5m at the frontage of the proposed site with a speed limit of 40mph.
- 3.6. Approximately 700m to the north of the site is the Hollow Lane / Arborfield Road / Hyde End Road Roundabout within Shinfield. Hyde End Road runs south for about 2 km to Spencers Wood forming a signal junction with the B3349 Basingstoke Road. Continuing on the Basingstoke Road for about 2km north via Three Mile Cross leads to the A33 and Junction 11 of the M4 Motorway.
- 3.7. The eastern parcel will be accessed via the priority junction which currently serves the existing Langley Mead SANG car park.
- 3.8. Appleton Way forms a priority junction with Hyde End Road c180m north of the car park access. The western parcel will access onto Appleton Road which currently provides access to the Shinfield West development to the north. Appleton Way is a single carriageway road with a speed limit of 30mph and a carriageway width of 6m along the northern site frontage of the western parcel.

Arborfield Road & Hollow Lane

- 3.9. To the north of the Hollow Lane / Arborfield Road / Hyde End Road Roundabout, Hollow Lane runs northward for approximately 1km through the centre of Shinfield before reaching the Black Boy Roundabout via the M4 overbridge providing connections towards the M4 motorway and towards Reading and Earley.
- 3.10. Arborfield Road runs east of the roundabout for approximately 400m to the Arborfield Road / Shinfield Eastern Relief Road Roundabout. Arborfield Road then continues eastward towards Arborfield and Arborfield Cross and Observer Way which routes to Arborfield Green about 3.5km to the south east.
- 3.11. The Shinfield Eastern Relief Road runs north providing connections to the Thames Valley Science Park, University Bridge over the M4 motorway and the Black Boy Roundabout, which then provides a route to Reading via Shinfield Road or the M4 Junction 11 on the B3270.



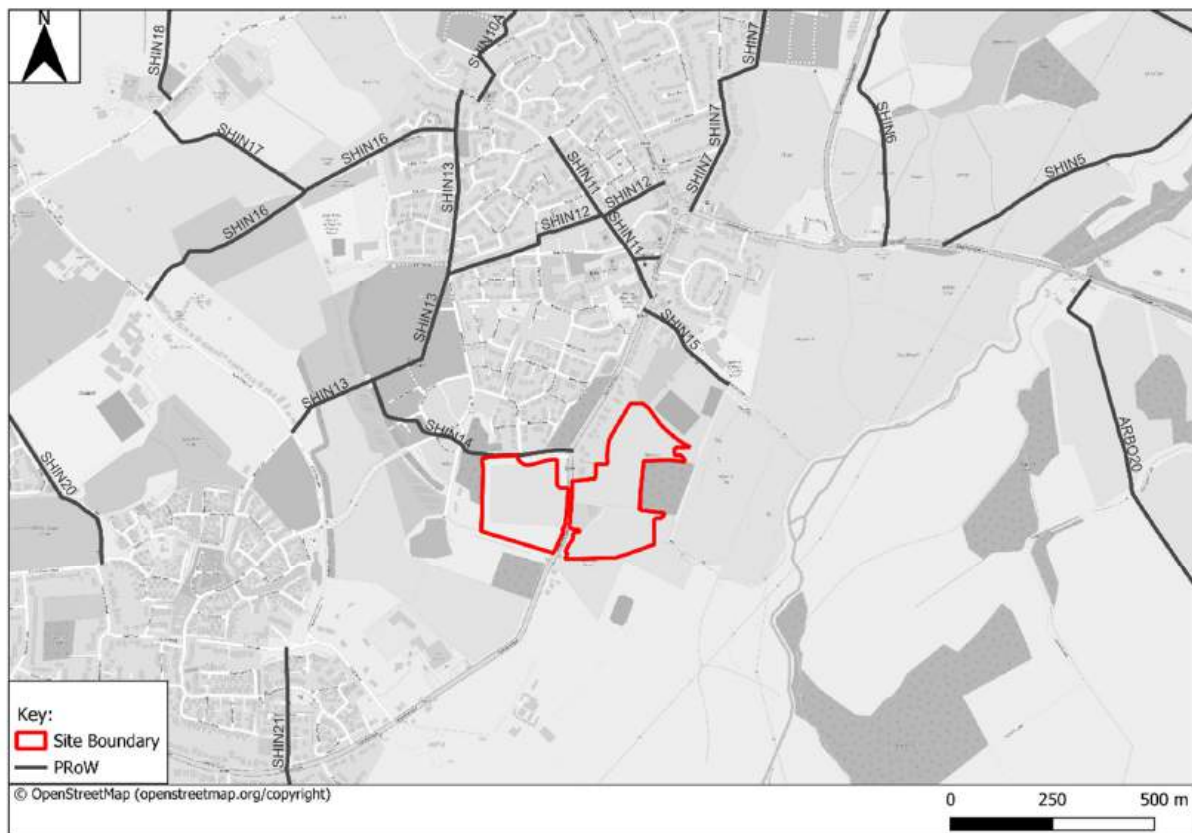
Travel by Foot and Cycle

- 3.12. The proposed site has a good level of pedestrian and cycle connectivity due to the significant investment in new infrastructure that has been implemented in the area over recent years. A Wokingham Borough Council plan depicting the cycle route network in the area is attached at **Appendix B**.
- 3.13. A 2m footpath is located on the western side of the carriageway at Hyde End Road in the vicinity of the Appleton Way junction. To the north of the junction, a pedestrian island crossing leads to a footway with a width of generally 1.2m provided on the eastern side of the carriageway for a c400m length up to School Green where footways are then located on both sides of the road, connecting into the existing networking within Shinfield. For those cycling through Shinfield, a 3m footway / cycleway runs along the east of the northern portion of Hollow Lane before continuing onto Shinfield Road which leads to the northern section of the Eastern Relief Road and the Black Boy Gyratory located north of the M4.
- 3.14. A 3m wide shared use footway/cycleway is located on the northern side of Appleton Way routing to High Copse to the west and connecting to the 2m footways on either side of Appleton Way as it routes north into the Shinfield West development. A permissive path is also located at High Copse routing along the western edge of the Shinfield West development, providing a route away from traffic c700m north to Alder Grove Primary School.
- 3.15. About 120m south of the Appleton Way junction, the 2m footway on the western side of the carriageway leads to a 2m wide permissive path. The permissive path links with the path network of the Langley Mead SANG with an existing dropped kerb and tactile paving crossing of Hyde End Road linking to the SANG car park. The permissive path runs alongside the Hyde End Road to the southwest for approximately 500m where the route returns to a footway adjacent to the northern side of the carriageway which then continues into Spencers Wood.

Public Right of Ways

- 3.16. In addition to the footway and cycleway facilities in the area, there is also a network of recreational Public Rights of Way running in the vicinity, as identified at **Figure 3.2** below.

Figure 3.2 : Existing Public Rights of Way



- 3.17. Public Footpath SHIN FP14 routes along the northern side of Appleton Way to the north of the western parcel of the proposed development site. This footpath leads westward towards High Copse Road through the development at Shinfield West to link with SHIN 13, which then connects with Hyde End Lane. Alternatively, travelling along SHIN 13 to the north east provides a route via SHIN 12 and SHIN 11 to the local Centre at Shinfield.
- 3.18. There are a range of recreational paths located within the Langley Mead SANG which is located immediately to the south and east of the proposed eastern development parcel offering circular walking routes to future residents.

Pedestrian and Cycle Accessibility

- 3.19. Walking can play an important role both in delivering accessibility at the local level and in contributing towards sustainable development patterns in the longer term. Walking is considered to be the most important mode of travel at a local level and offers the greatest potential to replace short car trips. Cycling can also contribute to transport sustainability and accessibility and is a good substitute for short car trips.



- 3.20. Government guidance on accessibility planning advises that residential development should be accessible to a range of land uses including education, employment, health and retail facilities. The provision of residential development in close proximity to such land uses helps to maximise the number of shorter distance trips and therefore capitalises on the potential for these journeys to be undertaken by non-car modes of travel.
- 3.21. It is clear that having services and facilities in close proximity is one of the primary factors in encouraging sustainable travel. In this regard it is notable that the National Travel Survey (2022) records that for the vast majority (83%) journeys of up to 1 mile (1,600m) are undertaken on foot by the general public and that even for journeys between 1 mile to 2 miles a significant proportion (40%) are still undertaken on foot. Similarly, cycling is used for accessing a variety of different destinations further afield, including educational facilities, shops and places of work.
- 3.22. On this basis, for the purposes of this Report, journeys of up to 2 miles and 5 miles are considered to represent acceptable walk and cycle distances for travel to nearby services and facilities.
- 3.23. Table 3.1 below summarises these local facilities and land uses, with actual walk distances measured along local footways from the centre of the development site. The Table also includes some key facilities that lie further afield, albeit it is not intended to represent an exhaustive list.

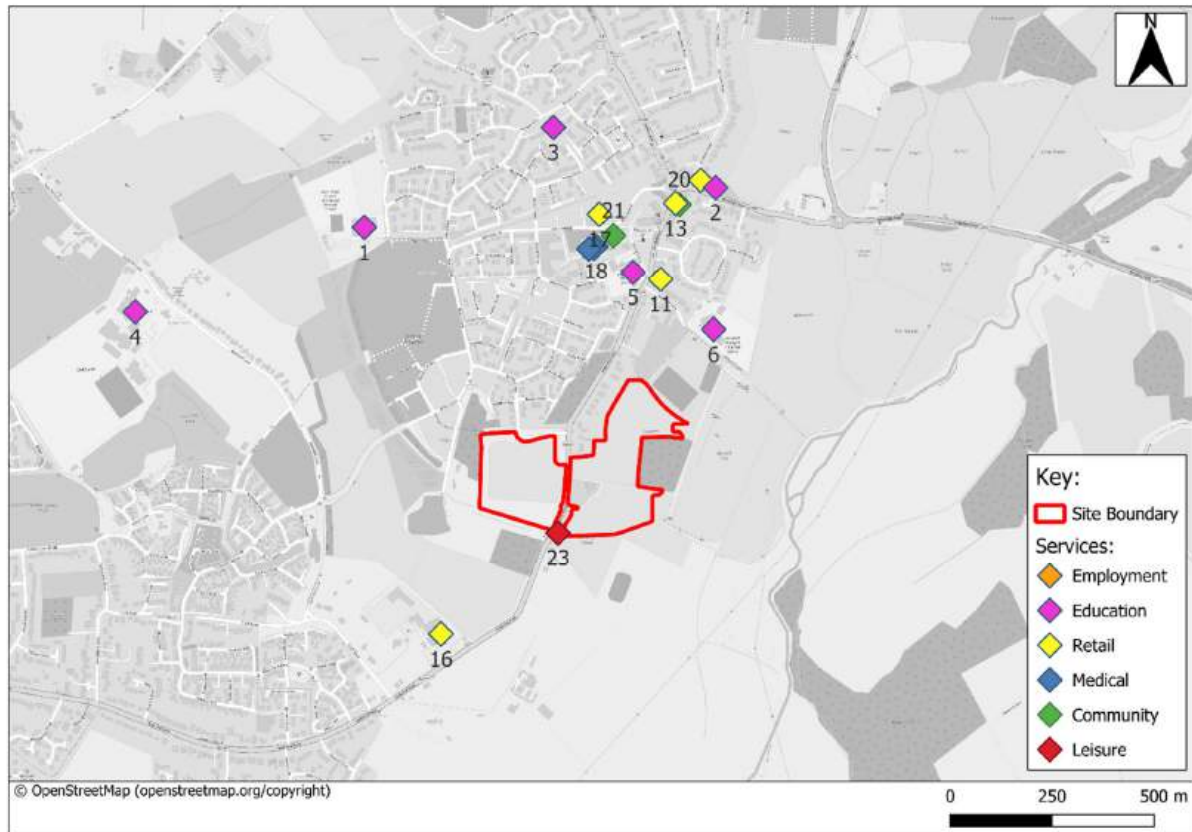


Table 3.1: Proximity of Key Facilities and Services

Service Type	Map ID	Facility	Approximate Distance	Within Reasonable Walking Distance	Within Reasonable Cycling Distance
Education	1	Alder Grove Primary School	1,000m	✓	✓
	2	Happy Trails Play Nursery	800m	✓	✓
	3	Honeysuckle Day Nursery	1,000m	✓	✓
	-	Oakbank Secondary School	1,500m	✓	✓
	5	Shinfield Infant and Nursery School	550m	✓	✓
	6	Shinfield St Marys C of E Junior School	850m	✓	✓
Employment	-	Green Park Business Park	5,100m		✓
	9	Thames Valley Science Park	2,000m	✓	✓
	-	Reading Town Centre	7,400m		✓
Retail	-	Asda Lower Early	3,600m		✓
	11	Co-Operative, Shinfield	600m	✓	✓
	-	M & S Lower Early	3,500m		✓
	13	Premier Express, Shinfield	700m	✓	✓
	-	Reading Town Centre	7,400m		✓
	15	Shinfield Service Station	750m	✓	✓
	16	Shinfield Garden Centre	550m	✓	✓
	21	Lidl Shinfield	680m	✓	✓
Health	18	Shinfield Dental Care	750m	✓	✓
	18	Shinfield Medical Centre	750m	✓	✓
	18	Shinfield Pharmacy	750m	✓	✓
	-	South Reading Surgery	3,100m	✓	✓
	-	Royal Berkshire Hospital	6,100m		✓
Community	20	Shinfield Post Office	700m	✓	✓
	21	School Green Community Centre	600m	✓	✓
	-	Spencers Wood Library	2,100m	✓	✓
Leisure	-	Langley Mead SANG	200m	✓	✓
	-	Loddon Valley Leisure Centre	3,750m		✓
	-	Shinfield Players Theatre	2,200m	✓	✓
	26	The Shinfield Arms	1,900m	✓	✓

3.24. For ease of reference, a number of nearby facilities listed above are depicted on **Figure 3.3** below.

Figure 3.3: Neighbouring Services and Facilities

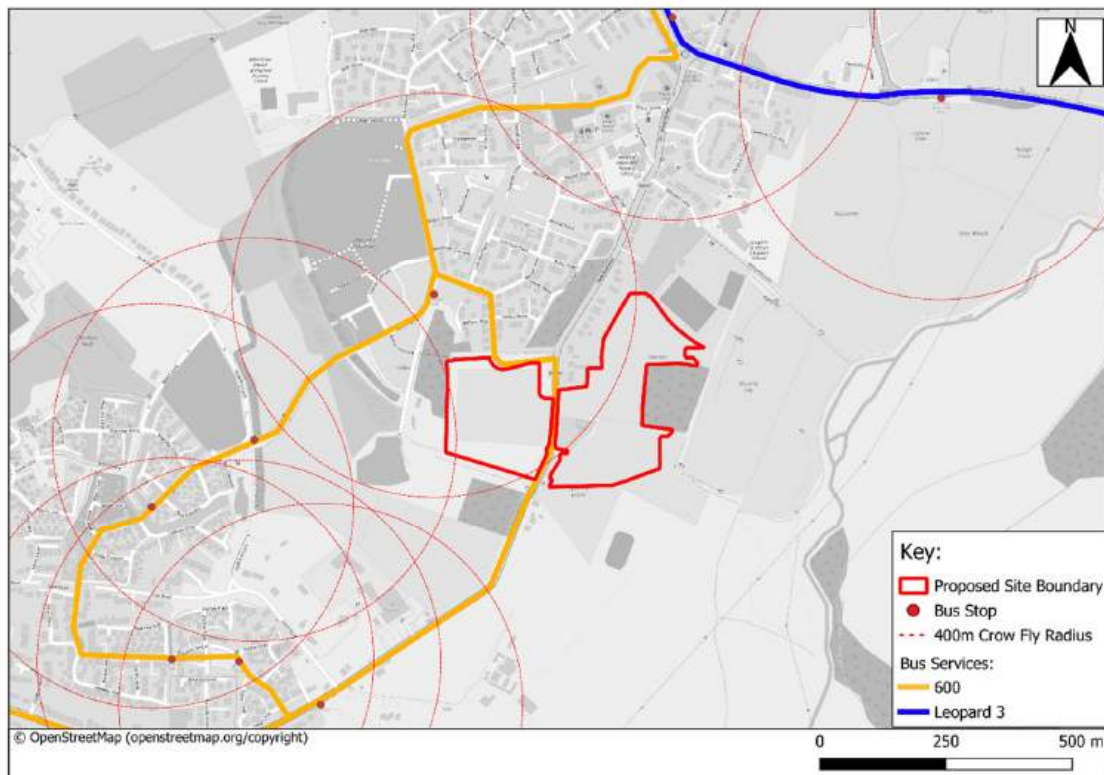


- 3.25. In addition to the range of local services and facilities located near the site and towards Reading town centre, there is also a network of SANG areas within Shinfield, Spencers wood and Three Mile Cross which provide access for residents to local recreation and outdoor space. Of particular note is the Langley Mead SANG which lies immediately to the south and east of the eastern parcel of the proposed development site.
- 3.26. The location of the proposed development is therefore consistent with national and local policy aspirations given that there are nearby services and facilities (both existing and committed) which are accessible within reasonable walking and cycling distances. There is scope therefore for journeys made in relation to the proposed development to be undertaken by non-car modes.

Travel by Bus

- 3.27. There are a number of frequent bus services operating in the vicinity of the site. The routings are depicted on **Figure 3.4** below which, for context, also shows 400m crow fly distances from the neighbouring bus stops. Of note however is that all proposed plots are lie within an actual walk distance of 800m from a bus stop.

Figure 3.4: Existing Bus Stops



- 3.28. Bus services currently operate at bus stops on Bolton Drive located to the north west of the development site. These are c500m walk distance from the centre of the site, whilst more services are available at bus stops on the Hollow Lane corridor within the existing urban area of Shinfield a c850m walk distance from the centre of the site. Further details of the provision at the closest pairs of bus stops on each corridor are set out below:
- Bolton Drive - northbound/southbound each include timetable information and a flag.
 - Hollow Lane - School Green northbound and southbound stop include a shelter and timetable information.
- 3.29. Table 3.2 below provides a summary of the services offered along the bus routes presently operating in the area.



Table 3.2 : Local Bus Services

No.	Bus Stop Locations	Route	Peak Frequency Guide		
			Weekd ay	Sat	Sun
600	Bolton Drive	Reading – Mere oak Park and Ride– Spencers Wood	60 mins	60 mins	-
600	Hollow Lane, School Green	Reading – Mere oak Park and Ride– Spencers Wood	60 mins	60 mins	-
3	Hollow Lane, School Green	Central Reading – Royal Berkshire Hospital – Shinfield - Arborfield	15 mins	15 mins	30 mins
3	Hollow Lane, School Green	Central Reading – Royal Berkshire Hospital – Shinfield – Arborfield - Wokingham	60 mins	60 mins	-

Source: Reading Buses (January 2025)

- 3.30. As can be seen, there are a number of services operating in the locality which serve a range of destinations in the area. The Bolton Drive Bus Stops located to the north west of the development site are also served by the Route 600 service which provides a 60minute frequency service between Reading and Mere oak Park and Ride.
- 3.31. The Route 3 and 600 services operated by Reading Buses route along the Hollow Lane corridor through Shinfield between Reading town centre and Wokingham, resulting in 5 buses per hour routing along the corridor to Reading. Full bus service details are provided at **Appendix C**.

Travel by Rail

- 3.32. The nearest rail station to the site is at Earley which is located approximately 6.5km cycle distance to the north-east. Covered and secure cycle parking is available at the station. Earley rail station provides regular and frequent services between Reading and London Waterloo operated by South West Trains. The journey time to Reading Railway Station is approximately 6 minutes.



3.33. Whilst the closest Rail Station is at Earley, it is of note that Reading rail station lies approximately 8.5km cycle distance to the north and is connected by the 600 bus service described above. Reading rail station is the second busiest railway interchange in England outside London and caters for approximately 13 million passengers per year. It forms a national hub with rail services operated by Cross Country, South West Trains and Great Western Railway providing connections to all UK mainland destinations - including direct links to Gatwick and Heathrow International Airports. Essentially, Reading Railway Station performs three diverse roles for travellers within the Reading urban area comprising:

- Locally - connecting Reading with other adjoining local areas in the Thames Valley;
- Regionally – forming a central Transport Hub for both the sub-region and South-east region as a whole where either connections to or interchange for services to all destinations in the south-east are possible; and
- Nationally – forming a national hub at the cross-roads of the Great Western mainline and Cross Country networks providing connections between the sub-region and all other English regions as well as Wales and Scotland.

3.34. Frequent rail services operate between Reading and destinations across the UK including Wokingham and London Paddington. Table 3.3 below shows a variety of the destinations, journey times and frequency of services of rail services operating from Reading rail station.

Table 3.3: Reading Station Train Services

Destination	Journey Time	Approximate Frequency Guide			
		Peak	Off Peak	Evening	Weekend
Wokingham	9 to 14 mins	15 mins	15 mins	15 mins	15 mins
London Paddington	30 mins	6 mins	6 mins	6 mins	6 mins
Basingstoke	17 to 27 mins	20 mins	20 mins	20 mins	20 mins
Birmingham	90 mins	60 mins	60 mins	60 mins	60 mins
Bristol	49 to 70 mins	15 mins	15 mins	15 mins	20 mins
Southampton	50 mins	60 mins	60 mins	60 mins	60 mins

Source: National Rail Enquiries (January 2025)

3.35. Green Park Railway station, which opened in 2023, is located c5km west of the development site and facilitates access to services along the Basingstoke to Reading line.



Accident Analysis

- 3.36. In order to establish whether there are any particular road safety issues on the local network, the most recent 5-years of Personal Injury Accident information for the highway network in the vicinity of the site has been obtained from Wokingham Borough Council. The data covers the period of 1st August 2018 to 31st July 2024 and the following study area has been assessed as established during the scoping exercise:
- Shinfield Eastern Relief Road (ERR)
 - A327 Hollow Lane through Shinfield between Black Boy Gyratory and Arborfield Road
 - B3349 Hyde End Road between Hollow Lane and Basingstoke Road
 - Arborfield Road east of the A327 Hollow Lane Roundabout (to the ERR)
 - Appleton Way, Bolton Drive and Church Lane to the A327 Hollow Lane
 - Hyde End Lane to Church Lane
 - Basingstoke Road between Hyde End Road and Church Lane
- 3.37. The accidents have been examined to determine if any patterns emerge at particular locations, relating to elements such as the type of user involved and the causes of such accidents. The accident data is summarised in Table 3.4 below while the full output is presented at **Appendix D**.



Table 3.4 : Accidents by vehicle Types

Location	Severity				Road Users			
	Slight	Serious	Fatal	Total	Vehicle Only	Cycle	Pedestrian	Total
Shinfield Eastern Relief Road	5	1	-	6	6	-	-	6
A327 Hollow Lane through Shinfield	5	2	-	7	6	1	-	7
B3349 Hyde End Road	3	-	-	3	2	-	1	3
Arborfield Road	-	-	-	-	-	-	-	-
Appleton Way, Bolton Drive and Church Lane	1	-	-	1	1	-	-	1
Hyde End Lane to Church Lane	2	-	-	2	-	1	1	2
Basingstoke Road	3	-	-	3	3	-	-	3
Total	19	3	0	22	18	2	2	22

- 3.38. A total of 22 accidents occurred in the study area over the five-year period. None of the accidents resulted in fatalities, although three of the accidents did result in at least one serious injury. The remaining 19 accidents were recorded as resulting in slight injuries.
- 3.39. A total of two accidents involved cyclists and two involved a pedestrian. The remaining accidents were vehicle-only accidents.
- 3.40. Of note is that no accidents were recorded in the immediate vicinity of the proposed site access locations or along the site frontages on Hyde End Road or Appleton Way.
- 3.41. An appraisal of the accidents which occurred within the study area is set out below.

Shinfield Eastern Relief Road

- 3.42. Two accidents occurred at the signal junction at the northern extent of the corridor. The first involved a right turning car colliding with a motorcycle resulting in a slight injury with a variety of possible causes listed. The other accident involved a car suddenly breaking due to a malfunction then a light goods vehicle hit the rear of the car resulting in 3 slight injuries.



- 3.43. Three accidents occurred to the north of the Thames Valley Science Park roundabout. A northbound car changed lanes after failing to look properly and collided with another car resulting in a slight injury, whilst a second accident involved a southbound driver losing control on the bend resulting in a serious injury. Careless or reckless driving were listed as possible causes of the accident which resulted in serious injury. Another slight accident involved a car colliding with another at the TVSP access roundabout with no other details recorded aside from carelessness as a possible factor.
- 3.44. The final slight accident on the Eastern Relief Road occurred when a car departed the Cutbush Lane East priority junction and collided with another due to a misleading signal given.

A327 Hollow Lane through Shinfield

- 3.45. Three accidents occurred in the vicinity of the Hollow Lane / Arborfield Road/ Hyde End Road roundabout. A serious injury occurred when a car entered the roundabout and collided with a motorcycle after failing to look properly. In another incident a car reversing from a parking space collided with a car waiting to turn causing a slight injury, whilst the final accident involved a southbound car at Hollow Lane shunting a car waiting at temporary lights.
- 3.46. A slight accident at Hollow Lane to the north of the roundabout occurred when a car waiting to turn right into Wychelm Road was rear ended by a northbound car. The driver failing to look properly was listed as a factor.
- 3.47. Two accidents occurred at the Hollow Lane/Brookers Hill signal junction. One, which resulted in slight injuries, occurred when a right turning car hit another after disobeying the traffic signal. The other accident happened when a fatigued southbound driver crossed the carriageway and collided with another car, resulting in a serious injury.
- 3.48. The remaining accident along Hollow Lane was at the northern extent of the corridor near the Foot/Cycle/Bus bridge over the M4 motorway when a cyclist hit a car as a result of defective breaks which resulted in a slight injury.

B3349 Hyde End Road

- 3.49. Three slight accidents were recorded at the B3349 Hyde End Road. The first involved an intoxicated driver losing control when travelling east along the link about 25m east of Croft Road. At the second, a pedestrian was crossing the carriageway in the vicinity of the junction with Century Drive and was hit by a car with the pedestrian failing to look properly listed as a factor. The final recorded accident involved a van overtaking a parked car on Montgomery Drive and colliding with it.



Appleton Way, Bolton Drive and Church Lane

- 3.50. The only accident recorded in this area was a slight accident at Church Lane/Skylark Close which involved a right turning car hitting another after failing to look properly.

Hyde End Lane to Church Lane

- 3.51. Two slight accidents involved pedestrians at Hyde End Lane. At the first a pedestrian was hit by a car whilst crossing the carriageway with the driver failing to look properly listed as a potential factor and no specific location details recorded. At the second accident, a car collided with a pedestrian crossing the carriageway at the Church Lane / Hyde End Lane priority junction. However, the pedestrian failing to look properly was listed as a potential factor.

Basingstoke Road

- 3.52. A northbound motorcycle collided with the rear of a car waiting at temporary traffic lights at the Mayflower Meadows priority junction, with distraction listed as a possible factor. At the junction with Sevenoaks Drive an agricultural vehicle collided with a northbound car with illness related to the driver recorded as a possible factor.
- 3.53. The final slight accident occurred at the Church Lane / Basingstoke Road junction when a motorcycle braked to allow a pedestrian to cross the road and lost control on the wet road.

Summary

- 3.54. Whilst all accidents are regrettable, based on the above analysis it is not considered that there are any specific issues with highway safety in the area that would be significantly exacerbated by the additional traffic that would be attributable to the development proposals.

Baseline Traffic Flows

- 3.55. Automatic Traffic Counters (ATC) were placed on Appleton Way and Hyde End Road in the vicinity of each of the proposed site accesses to record the existing flows and speeds of traffic at the site frontage over a 7-day period between Wednesday 11th September and Tuesday 17th September 2024 inclusive. Summaries of the ATC results are presented in **Appendix E**.
- 3.56. The results of the ATC surveys indicate that Appleton Way typically accommodates approximately 205 two-way movements during the busiest hour, while Hyde End Road accommodates 767 two-way movements.
- 3.57. The ATC surveys also recorded a 7-day average 85th percentile speeds of 26.4mph (eastbound) and 26.5mph (westbound) at Appleton Way and 37.1mph(northbound) and 36.9mph (southbound) on Hyde End Road, indicating that vehicles predominately adhere to the posted 30mph and 40mph respective speed limits.



4.0 Development Proposals

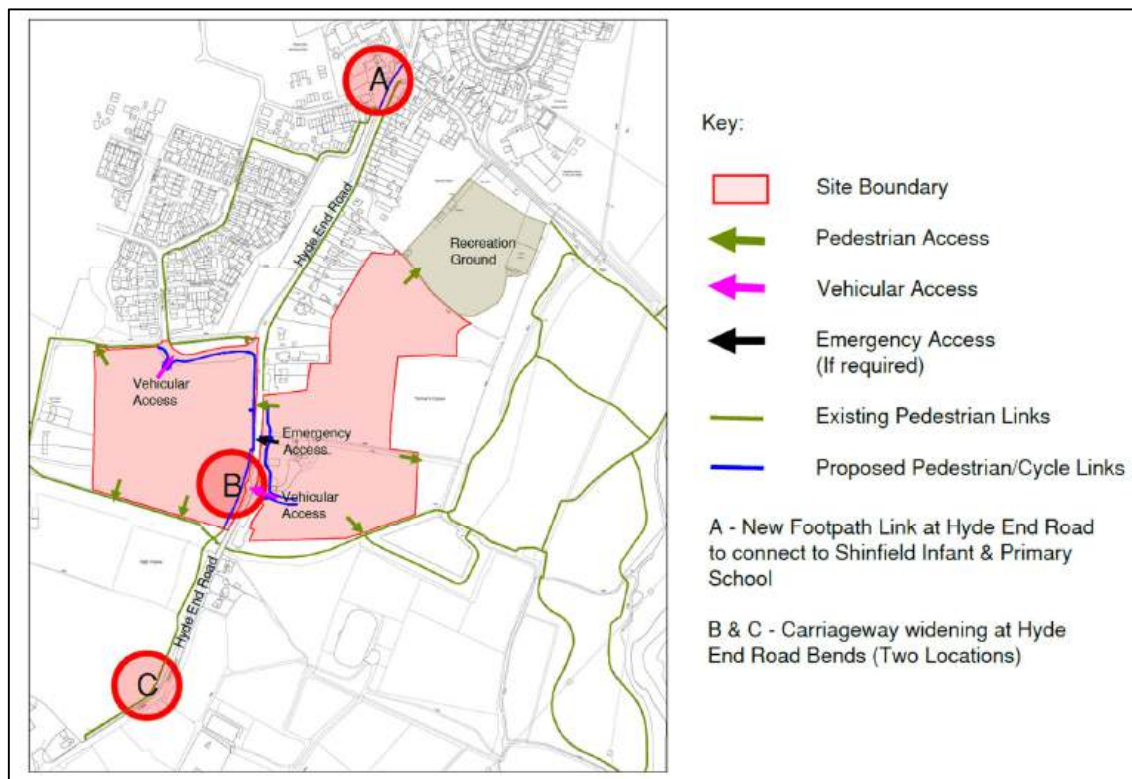
Context

- 4.1. This Section of the Transport Assessment Report outlines the transport measures that will accompany the proposed development which have been derived to facilitate movement by all modes of travel in a satisfactory manner.
- 4.2. A copy of the proposed Layout is attached as **Appendix A** of this report. Further details which set out how the Layout has been developed to reflect a number of considerations, including access and movement, are set out in the Design and Access Statement which accompanies the planning submission.
- 4.3. It is proposed that the western parcel would be accessed via a new simple priority junction to be formed onto Appleton Way. Access into the eastern parcel would make use of the existing Langley Mead SANG priority junction onto Hyde End Road.
- 4.4. In addition, a number of connections at the boundaries of each parcel are proposed to maximise accessibility for pedestrian and cyclists to the proposed site.

Travel by Foot and Cycle

- 4.5. Careful consideration has been taken within the proposed Layout with regard to the integration of the pedestrian and cycle networks with the surrounding facilities and infrastructure in order to deliver a high level of connectivity for movements to and from the site.
- 4.6. A number of design measures to cater for pedestrian and cycle movements within the development have been employed, including:
 - A street pattern that generates natural surveillance where entrances and frontages face all public routes.
 - An internal layout that encourages low vehicle speeds and therefore creates an environment where pedestrians and cyclists are not intimidated by motor traffic.
 - A permeable hierarchy of direct routes within the development comprising a range of shared, segregated and recreational links which would connect all internal areas of the development to the points of access.
- 4.7. The proposed Access Arrangements for each parcel are depicted on Drawing No. HD068-003/P3, provided at **Appendix F**. For further context, **Figure 4.1** below identifies how the emerging proposals would integrate into the wider transport networks.

Figure 4.1 : Access and Pedestrian Accessibility Context Plan



- 4.8. As can be seen from Drawing No. HD068-003/P3, a 3m shared use footway/cycleway is being promoted within the western frontage of the eastern parcel which will provide a link that routes parallel to Hyde End Road. A 2.5m wide pedestrian island crossing is then proposed to allow pedestrians and cyclists to cross to the western parcel, where a 3m wide footway/cycleway will then be provided alongside Hyde End Road. This will connect northwards to the off-road footway / cycleway that routes along the northern side of Appleton Way and also southwards to the permissive path provided alongside the Hyde End Road corridor towards Spencers Wood.
- 4.9. The above provision will be complimented by a new 2m wide footway along the southern side of Appleton Way, connecting to the existing link along Hyde End Road.
- 4.10. Further points of connection will be promoted at both parcels, including access to Footpath 14 to the north-west; the SANG Link to the south, and also into Millworth Lane Recreation Ground to the north-east.
- 4.11. Further to the site access arrangements, the following footway and cycleway provision has been incorporated into the proposed Layout:
 - 2.0m footways provided on both sides of the carriageway along the spine road of each development parcel.



- A 2m recreational path around the perimeter of the western parcel and eastern side of the eastern parcel.
- 4.12. Within areas such as private drives, shared streets will be promoted allowing pedestrians and drivers to share the carriageway where lower volumes and speeds of vehicles permit this.
- 4.13. Residents at the proposed development would therefore enjoy attractive and continuous routes within the development providing connections between Langley Mead SANG, Millworth Lane and Footpath 14 at Appleton Way.
- 4.14. In addition, the potential to improve pedestrian connectivity towards School Green in the vicinity of Shinfield Infant & Nursery School has been identified. A possible enhancement scheme that could be promoted is shown on Drawing No. HD068 - 008/P1 at **Appendix J**. Whilst the works shown on the Drawing can be delivered with land designated as adopted highway, it is recognised that other potential enhancements could be achieved in this area, particularly if the pedestrian access arrangement for the school were to be reconfigured.

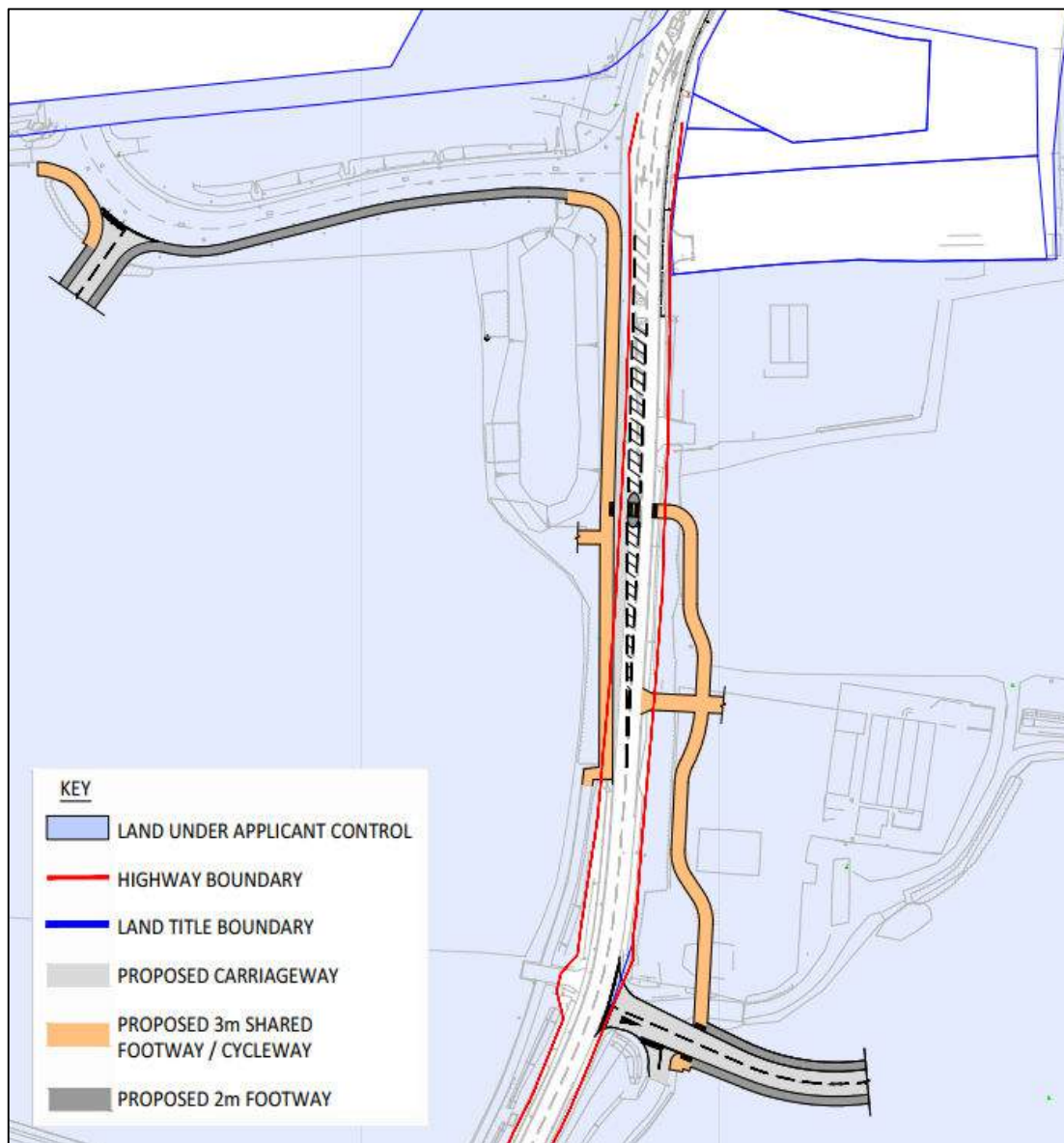
Travel by Public Transport

- 4.15. As has been established in Section 3 of this report, the 600 service operates at bus stops located on Bolton Drive a c500m walk from the centre of the site offering a 60-minute frequency service between Mere oak park and Ride and Reading. In addition, the Leopard 3 service operates at a 15-minute frequency through the Hollow Lane Corridor with bus stops located a c850m walk distance from the centre of the site. Pedestrian routes to these bus stops from the proposed site has helped to inform the location of the new pedestrian accesses at the north of each parcel in order to help facilitate bus travel. These services will therefore offer future residents a good level of accessibility for bus journeys.

Travel by Car

- 4.16. Whilst the development proposals seek to maximise connectivity for non-car modes of travel, it is also important that a satisfactory level of highway provision is allowed for within the internal layout of the development which, in turn, affords a satisfactory access arrangement onto the surrounding highway network.
- 4.17. The proposed vehicular access arrangements for each parcel are depicted on Drawing No. HD068-003/P3, attached as **Appendix F** and also on **Figure 4.2** below.

Figure 4.2 : Vehicular Access Arrangements



- 4.18. Vehicular access to the western parcel, which accommodates 68 units, will be achieved by a new simple priority junction with Appleton Way. The access junction comprises a 5.5m wide carriageway with 2m footways at either side. The proposed priority access has been designed to accommodate junction visibility splays of 2.4 x 43m, commensurate with the speed limit of 30mph along Appleton Way.
- 4.19. The eastern parcel accommodating 116 units is proposed to be accessed by utilising the existing Langley Mead SANG car park access onto Hyde End Road. Junction visibility splays of 2.4 x 90m can be achieved for the access which is commensurate with the 40mph speed limit along the corridor. Based on discussions with Wokingham Borough Council, the proposed priority access is judged to be sufficient to accommodate the quantum of units proposed within the parcel.



- 4.20. It is proposed to reconfigure the carriageway within the eastern site to provide a 5.5m wide access street routing into the proposed residential area. The entrance to the Langley Mead SANG car park is to be reconfigured slightly so that it is formed off the southern side of the access street. The arrangement being promoted ensures that vehicles utilising the junction to access either the residential area or the SANG car park can do so in a safe and satisfactory manner.
- 4.21. Swept path analysis has been undertaken to demonstrate that large vehicles including a refuse vehicle can manoeuvre at each of the proposed site accesses. The results of the swept path analysis are shown on the Drawings included within **Appendix G**.
- 4.22. A spine street routes south to north within the western parcel providing access to a number of shared surface streets generally formed of 5m carriageway and 2m margins at either side. Private drives and courtyards within the development also generally comprise shared surface streets. The use of shared surface streets recognises that the volume and speeds of traffic in these areas will be low. The approach taken will therefore deliver well designed safe streets that contribute to the quality of the built environment.
- 4.23. Similarly, within the eastern parcel a spine street routes to the north with a number of shared surface streets and private drives formed off the street. In addition, an access has been formed onto the spine road to accommodate the existing access track which allows maintenance vehicles to serve the SANG at the east of the site.

Servicing

- 4.24. The swept path analysis presented on the drawings at **Appendix H** demonstrate that a fire tender is able to manoeuvre within 45m of every property in a satisfactory manner. Similarly, the design of the internal street network has been assessed to identify that a large refuse vehicle can be accommodated with sufficient allowance for turning manoeuvres.
- 4.25. Of note is that Bin Collection Points are provided to prevent excessive carry distances for either residents or waste vehicle operatives as labelled on Drawing No. HD068 - 013/P1 at **Appendix H**.

Parking Guidance

- 4.26. Wokingham Borough Council's Parking Standards are presented within Appendix 2 of its Managing Development Delivery DPD which was adopted in February 2014.



- 4.27. The standards no longer identify maximum numbers of parking spaces to be provided within residential developments. This approach is in line with national guidance presented in the National Planning Policy Framework (March 2012) and Planning Practice Guidance (October 2014) which recognise that the level of parking provided should be based on a number of local factors including car ownership, dwelling type and size as well as being mindful of local constraints such as the availability of on-street parking facilities in the locality.
- 4.28. The Wokingham Borough Council Parking Standards advocate the use of a 'Demand Calculator' which helps to establish the level of parking demand at a development. With regards to residential parking, the 'Demand Calculator' appraises the level of on-plot parking in order to establish the level of ancillary, unallocated parking that should be provided within a development. The 'Demand Calculator' also makes an allowance for instances when not all garages provided within a development will be fully utilised for car parking.
- 4.29. It is however important to note that the Wokingham Borough Council Parking Standards acknowledge that the standards and the 'Demand Calculator' should be regarded as only a starting point and that the overall level of parking provided will need to be assessed on its own merits within the wider context of the area within which the development sits.

Vehicular Parking Strategy

- 4.30. When determining the precise level and type of parking throughout the wider development, consideration has been given to the housing types proposed. A design led approach has been adopted which seeks to provide parking that is well integrated and complements, rather than dominates, the street scene.
- 4.31. The objective is to provide an adequate level of parking and, importantly, to ensure that the spaces that are designed for parking are used for parking, and that places where parking will cause problems are not going to be used for that purpose. This approach will help to prevent the problems such as cars parked indiscriminately which obstruct pavements and restrict access along a street.
- 4.32. Most car owners like to be able to see their vehicles and / or to know that they are securely parked. On plot parking satisfies this strong desire. Acceptance of this means that the significant majority of the parking at the proposed development is designed to be provided within the curtilage of dwellings through the use of on-plot spaces.
- 4.33. The proposed Layout allows for unallocated parking, predominantly through the use of on-street parking bays. In this respect, care has been taken to ensure that the on-street parking areas are designed so that they do not impinge on the operation of the street or footways.



Allocated Parking

- 4.34. The proposed layout provides for some 360 allocated spaces and a further 77 spaces within garages.
- 4.35. Table 4.1 below provides a summary of the level of allocated parking provision for each of the dwelling sizes while a plot-by-plot appraisal of the allocated parking is presented in **Appendix I** of this report. For the avoidance of doubt, Table 4.1 identifies all garages as contributing to an 'allocated space.'

Table 4.1: Summary of Allocated Parking Provision

Dwelling Size	No of Dwellings	1 Space	2 Spaces	3 Spaces	6 Spaces
1 Bed House	22	20	2	-	-
2 Bed House	27	-	27	-	-
3 Bed House	68	-	61	7	-
4 Bed House	65	-	3	58	4
5 Bed House	2	-	-	-	2
Total	184	20	93	65	6

- 4.36. As can be seen, all 1-bed houses have at least one allocated parking space and all other houses have at least 2 parking spaces.
- 4.37. It is noted that based on Wokingham Borough Council's research, garages are only used around 50% of the time for parking. The provision has therefore been re-presented in Table 4.2 below, but this time excluding all garages from the calculation, to provide reassurance that if the resident chooses to not use their garage for parking, they still have access to sufficient numbers of allocated parking spaces.

Table 4.2: Summary of Allocated Parking Provision (Excluding Garages)

Dwelling Size	No of Dwellings	1 Space	2 Spaces	4 Spaces
1 Bed House	22	20	2	-
2 Bed House	27	-	27	-
3 Bed House	68	-	68	-
4 Bed House	65	-	61	4
5 Bed House	2	-	-	2
Total	184	20	158	6

- 4.38. As Table 4.2 identifies, even when excluding garages, all houses still have benefit of an allocated space which is not a garage. Furthermore, all houses with 2 or more bedroom are provided with 2 allocated spaces which are not garages.



Visitor Parking

- 4.39. In order to cater for the demands of visitors, a blanket requirement of 1 visitor space for every 5 dwellings is required. This equates to a total visitor provision of 36.8 visitor spaces across the proposed development.

Unallocated Parking

- 4.40. The Wokingham Borough Council Parking 'Demand Calculator' appraises the level of on-plot parking in order to establish the level of ancillary, unallocated parking that should be provided within a development.
- 4.41. It is important to reiterate that the Wokingham Borough Council Parking Standards acknowledge that the standards and the 'Demand Calculator' should be regarded as only a starting point and that the overall level of parking provided will need to be assessed on its own merits. Nevertheless, the 'Demand Calculator' does provide a useful indication against which the level of provision within the layout can be assessed.
- 4.42. The identification of the demand for unallocated spaces on a plot-by-plot basis is based on the coefficients set out in the parking standards. Of note is that garages are proposed with dimensions of at least 7mx3m in excess of WBC guidance that identifies a minimum of 6mx3m.
- 4.43. The Wokingham Borough Council Parking Calculator does not require unallocated demand to be provided at properties with more than 2 spaces (other than the blanket 0.2 visitor spaces per unit). Therefore, in the instances where the inclusion of the additional garage provides such plots with a total of three parking spaces, the unallocated demand has been excluded for such properties when ascertaining the total unallocated parking requirement for the development.
- 4.44. As can be seen from the parking appraisal at **Appendix I**, this yields a total requirement for 9.3 communal unallocated parking spaces on top of the 36.8 visitor spaces required, thereby equating to a requirement for at least 46.1 such spaces across the development. The Layout responds positively to this requirement by delivering a total of 48 unallocated / visitor spaces, thereby according with the parking requirement. The location of each parking space and garage is identified on the layout provided at **Appendix A**.

Summary of Vehicular Parking

- 4.45. For ease of reference, the parking provision throughout the development, expressed as ratios per dwelling, is summarised in Table 4.3 below.



Table 4.3: Vehicular Parking Summary

Unit Mix	No of Spaces	Ratio per Dwelling
Visitor / Unallocated	48	0.26
Allocated	360	1.96
Garages	77	0.42
Total Allocated + Garages + Visitor / Unallocated	485	2.64

4.46. As can be seen, the resultant parking provision at the development equates to an average of 2.64 spaces per dwelling.

Electric Vehicle Charging

4.47. The proposed layout allows for one active car charging point per house or apartment in accordance with Wokingham Borough Council's Living Streets: Highways Design Guide document (2019) and Part S of the Building Regulations 2010 (Updated 2021).

4.48. One active electric charging point will be located within garages or on the side of the house/garage for plots where an allocated parking space is provided within the curtilage of the property.

4.49. Alternatively for houses where off-site allocated parking is proposed then one active charge point will be provided in the form of a pillar for each dwelling.

Cycle Parking

4.50. Wokingham standards identify a requirement based on habitable rooms provided which typically results in a provision of 1,2 or 3 spaces per 1/2/3+ bed house.

4.51. Cycle parking will generally be accommodated within the curtilage of each individual house, including within garages where these are provided as detailed below.

- A total of 65no. houses are provided with a 7mx3m garage for the storage of bikes, in accordance with WBC guidance which identifies such a dimension for the storage of cars and bikes. Each of these units also has 2no. allocated car parking spaces in addition to the garage.
- A further 6no. 4 or 5-bed dwellings are provided with double garages suitable for storing bikes. Each of these units also has 4no. allocated car parking spaces in addition to the double garage.

4.52. For the remaining 113 units where garages are not provided, each house will be provided with a storage shed in their back gardens suitable for the storage of typically 2no. bikes, with rear accessing gates meaning that residents will not need to bring their bicycles through the house.

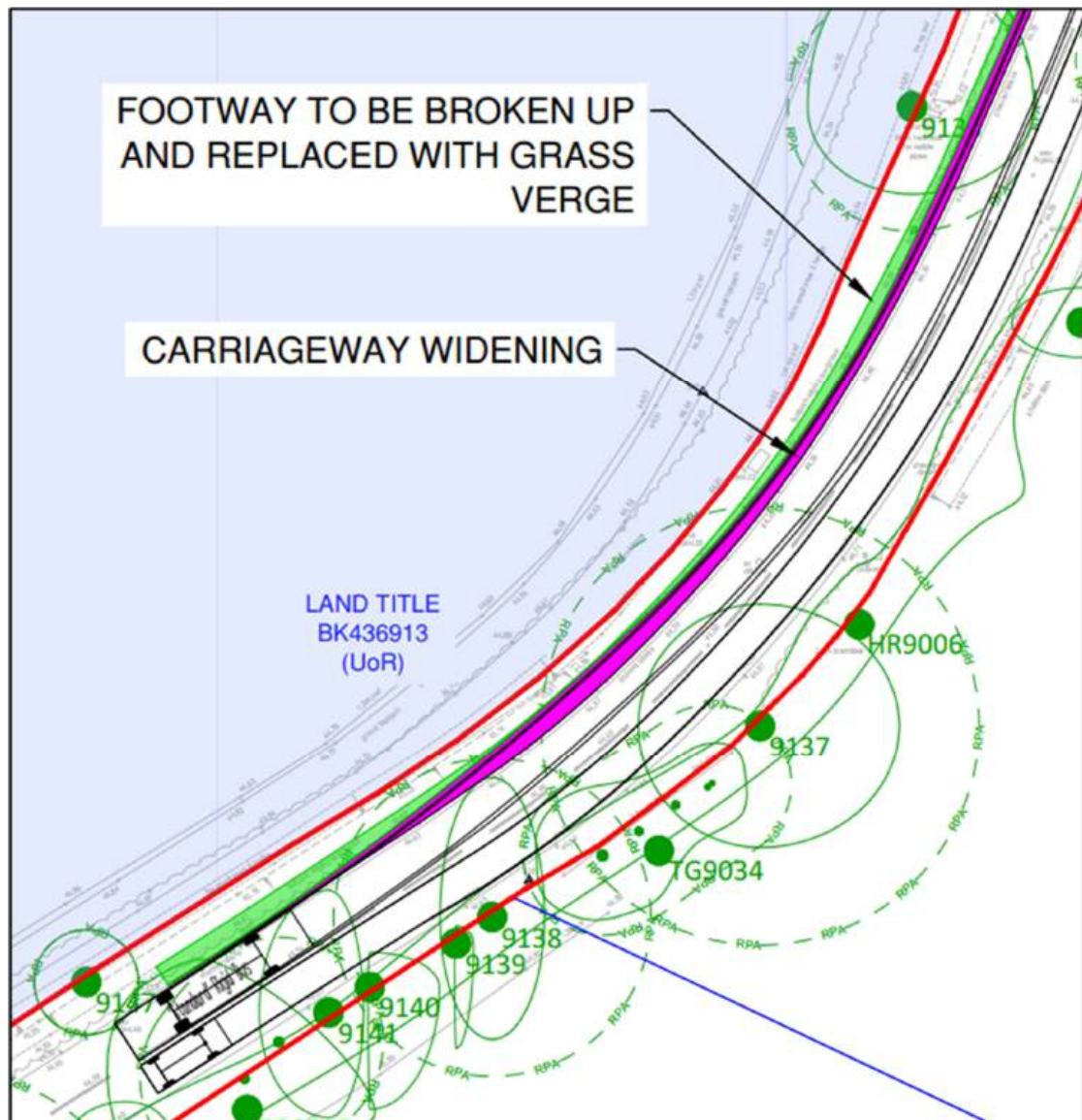
Travel Plan

- 4.53. As part of the scoping discussions, it has been agreed that, instead of preparing a new Travel Plan for the development, a S106 financial contribution will be provided instead given that matters relating to Travel Planning are now addressed through WBC's 'My Journey Wokingham' initiative.

Off-Site Mitigation

- 4.54. It is recognised that the alignment of Hyde End Road is likely to benefit from carriageway widening at the location of two bends which lie to the south of the site. A drawing which depicts a proposed improvement scheme is attached as **Appendix J**, while an extract which depicts the nature of the works at each of the locations is shown on **Figure 4.3** below.

Figure 4.3 : Potential Hyde End Road Carriageway Widening (Extract)





- 4.55. The works would comprise the provision of additional carriageway along the inside of the two bends which would be achieved by removing the narrow footway which is currently inaccessible to pedestrians due to barriers in place at either end. Importantly, pedestrian movements along the corridor would continue to be accommodated along the parallel path that routes along the western side of Hyde End Road. The works would therefore be accommodated wholly within highway land (identified in red ink on Figure 4.3) and would not result in any impacts to the existing vegetation that lies alongside the corridor.



5.0 Travel Demand

Introduction

- 5.1. This Section of the Transport Assessment Report outlines the forecast trip generation of the proposed development in respect of vehicular trips. Trips in relation to other modes of travel are set out in Section 9.
- 5.2. The appraisal focuses on the weekday morning and evening peak hours which represent the busiest periods along the local highway network.

Vehicular Trip Rates and Trip Generation

- 5.3. The vehicular trip generation for the proposed development has been assessed using approved peak hour trip rates which Wokingham Borough Council uses within its Wokingham Strategic Transport Model (WSTM).
- 5.4. Table 5.1 below shows the vehicle trip rates and the resultant number of trips related to the proposed development of 184 dwellings.

Table 5.1 : Vehicular Trip Generation

Development Trips	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	In	Out	Two Way	In	Out	Two Way
Vehicular Trip Rate (per unit)	0.17	0.41	0.58	0.36	0.16	0.51
Proposed Western Parcel of Development (69 Units)	12	28	40	25	11	35
Proposed Eastern Parcel of Development (115 Units)	20	47	67	41	18	59
Total Development (184 Units)	31	75	107	66	29	94

- 5.5. As can be seen the development proposals would generate less than 107 peak hour trips during the morning and evening peak hours.
- 5.6. The strategic transport modelling needed to be commissioned in advance of the layout being finalised and an initial figure of 210 units was used in order to proceed with the modelling on a robust basis. In the event, the site is now proposed to accommodate 184 units which is 26 units lower than used in the modelling. Accordingly, the analysis presented in the following sections is considered to provide a robust representation of the impacts that could arise from the development.



- 5.7. It is not considered necessary for the WSTM model to specifically account for the traffic movements utilising the Langley Mead Car Park which will share access into the eastern parcel of development. Instead, an allowance for peak hour trips associated with the SANG car park has been included manually within the detailed capacity appraisal of the proposed access junction.

Trip Distribution and Assignment

- 5.8. The distribution and assignment of the development generated vehicular trips reflects the parameters used within the Wokingham Borough Council WSTM traffic model. Further details of the approach taken are set out in Section 6 of this report.



6.0 Wokingham Strategic Transport Model (WSTM)

Context

- 6.1. Wokingham Borough Council has developed a Wokingham Strategic Traffic Model (WSTM) which enables the assessment of traffic impact arising from development sites within the Borough. The model has been produced to assist Wokingham Borough Council in assessing the traffic impact and possible mitigation requirements relating to such development sites.
- 6.2. Information on the access arrangements, development quantum and peak hour vehicular trip generation has been supplied to Wokingham Borough Council. These inputs have then been used by their modellers to provide a bespoke model run to assess the impact the proposed development will have on the local highway network. The use of the WSTM model therefore allows the traffic impact assessment to be undertaken on a common and agreed basis.

Assessment Scenarios

- 6.3. The WSTM model contains outputs for morning and evening peak periods.
- 6.4. The model includes outputs for a future year of 2026, albeit it is currently being updated to allow for a 2038 future year which accounts for development proposed within Wokingham Borough Council's Draft Local Plan. Given the proposed development would not be operational until after 2026, future year flows for 2032 and 2038 have been obtained for the local highway corridors. The use of such design years complies with the DfT guidance which advises that the impacts of a development should be assessed using a design year that is at least 5 years beyond the date of submission of a planning application.
- 6.5. In order to derive traffic flow data specific to the proposed development, WSTM model outputs have been obtained for two baseline scenarios, namely:
 - 2032 'Forecast Base'
 - 2038 'Forecast Base'
- 6.6. These two scenarios will enable a future baseline to be derived against which the impacts of the proposed development can be appraised.
- 6.7. Two further scenarios have then been formed from the model which allow for traffic flows arising from 210 units at the proposed development, namely:
 - 2032 'With Proposed Development'
 - 2038 'With Proposed Development'



- 6.8. Both the 2032 'With Development' and 2038 'With Development' scenarios allow the impact of the development proposals to be assessed when the development is fully operational. The design flows also allow for traffic growth and committed development, thereby ensuring that the impact of the proposed development is assessed in a cumulative manner which accounts for the effects of other strategic planned development in the area.



7.0 Assessment of Vehicular Impact (2032)

Context

- 7.1. This Section of the Transport Assessment Report assesses the impact of the vehicular trips generated by the proposed development for a future assessment year of 2032. This represents a design year where the development will be fully operational and is more than 5 years from the submission of the planning application.

Detailed Junction Assessments

- 7.2. The detailed appraisals of the junctions in the vicinity of the site have been undertaken using outputs from the Wokingham Strategic Transport Model (WSTM) for the 2032 'Forecast Base' and 2032 'With Development' scenarios to demonstrate the future conditions when the proposed development is fully implemented. Importantly the analysis appraises the impact of the proposed development while also including for the traffic associated with other planned developments in the area that will be operational by 2032.
- 7.3. The 2032 'Forecast Base' and 2032 'With Development' traffic flows derived from the WSTM model for the morning and evening peak hours are depicted on the diagrams attached within **Appendix K**.
- 7.4. As would be expected, flows across the majority of the network are generally slightly higher within the 2032 'With Development' scenario which allows for the traffic arising from the proposed development.
- 7.5. It should be noted that output from the WSTM model is available as either 'Actual Flows' or 'Demand Flows'. 'Demand Flows' can be defined as the level of traffic that wants to travel through a particular junction or link during a specific time period but may be prevented from doing so by queuing at upstream areas of the network (i.e. the 'Demand Flows' represent unsuppressed demand). The use of 'Demand Flows' is therefore considered to present an exaggerated and overly robust representation which can result in assumed traffic levels that are unrealistically high given that they ignore the effects of upstream queuing.
- 7.6. Nevertheless, the WSTM output and subsequent analysis presented within this Transport Assessment Report is based on the 'Demand Flows'. It is therefore important that this effect is given sufficient consideration when reviewing the findings of the capacity analyses that are presented below.
- 7.7. As identified within the agreed scoping exercise, the following junctions have been assessed:



1. Site Access / Appleton Way priority junction
 2. Site Access / Hyde End Road priority junction
 3. Appleton Way / Hyde End Road priority junction
 4. B3349 Hyde End Road / Basingstoke Road Signal Junction
 5. Church Lane / Basingstoke Road Mini Roundabout
 6. Hollow Lane / Arborfield Road / Hyde End Road / Shinfield West Roundabout
 7. Arborfield Road / Eastern Relief Road Roundabout
- 7.8. The findings of the future year capacity analysis for each of the junctions is set out below.

1. Site Access / Appleton Way Priority Junction

- 7.9. The assessment of the proposed Site Access / Appleton Way Priority Junction has been undertaken using JUNCTIONS 10 software based on the 2032 'With Development' scenario flows for both the AM and PM peak hours.
- 7.10. The JUNCTIONS 10 software relates certain variables such as the geometry of a junction and the traffic flow to predict the capacity of a junction. The software calculates a useful measure of performance of a junction represented as a Ratio of Flow to Capacity (RFC) of which an RFC of 1.00 indicates that a junction is operating at its theoretical capacity.
- 7.11. The result of the assessment is summarised at Table 7.1 below whilst the full capacity assessment outputs are included at **Appendix L**.

Table 7.1: Proposed Site Access / Appleton Way Priority Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2032 With Development Analysis				
Site Access - Left Out	0	0.02	0	0.00
Site Access - Right Out	1	0.05	0	0.03
Appleton Way - Right in	0	0.01	0	0.02

Note : Analysis based on Drawing No. HD068 - 003 P3

- 7.12. The results in Table 7.1 above indicate that the proposed site access would operate well within capacity with minimal queuing along the approaches during both peak hours. The proposed layout can therefore readily accommodate the future year traffic flows generated by the proposed western parcel of development with significant spare capacity.

2. Site Access / Hyde End Road Priority Junction

- 7.13. The assessment of the proposed Site Access / Hyde End Road Priority Junction has been undertaken using JUNCTIONS 10 software based on the 2032 'With Development' scenario flows for both the AM and PM peak hours.



- 7.14. In order to ensure a robust assessment, 10 arrivals and 10 departures to/from the SANG car park have been added to the turning flows at the junction.
- 7.15. The results of the assessment are summarised at Table 7.2 below whilst the full capacity assessment outputs are included at **Appendix M**.

Table 7.2: Proposed Site Access / Hyde End Road Priority Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2032 With Development Analysis				
Site Access - Left Out	1	0.06	0	0.03
Site Access - Right Out	1	0.16	0	0.05
Hyde End Road - Right in	1	0.05	1	0.08

Note : Analysis based on Drawing No. HD068 - 003 P3

- 7.16. The results in Table 7.2 above indicate that the proposed site access would operate well within capacity with minimal queuing along the approaches during both peak hours, including an allowance for the use of the existing SANG car park. The proposed layout can therefore readily accommodate the future year traffic flows generated by the proposed eastern parcel of development with significant spare capacity.

3. Appleton Way / Hyde End Road Priority Junction

- 7.17. Capacity assessments of the existing Appleton Way / Hyde End Road Priority Junction have been undertaken using JUNCTIONS 10 software for the 2032 'Forecast Base' and 2032 'With Development' scenarios for both the AM and PM peak hours.
- 7.18. The result of the assessments for each scenario is summarised at Table 7.3 below whilst the full capacity assessment outputs are included at **Appendix N**.



Table 7.3: Appleton Way / Hyde End Road Priority Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2032 Forecast Base Analysis				
Appleton Way – Left	0	0.00	0	0.00
Appleton Way – Right	1	0.59	1	0.07
Hyde End Road - Right	0	0.00	0	0.00
2032 With Development Analysis				
Appleton Way – Left	1	0.06	0	0.01
Appleton Way – Right	2	0.68	1	0.09
Hyde End Road - Right	0	0.02	0	0.02

Note : Analysis based on Existing Layout

- 7.19. The results in Table 7.3 above indicate that the existing junction would operate within capacity with minimal queuing along the approaches during both peak hours in the 2032 forecast base and future year scenario.

4. B3349 Hyde End Road / Basingstoke Road Signal Junction

- 7.20. Capacity assessments of the existing B3349 Hyde End Road / Basingstoke Road Signal Junction have been undertaken using LINSIG software for the 2032 'Forecast Base' and 2032 'With Development' scenarios for both the AM and PM peak hours.
- 7.21. The result of the assessments for each scenario is summarised at Table 7.4 below whilst the full capacity assessment outputs are included at **Appendix O**.

Table 7.4: Hyde End Road / Basingstoke Road Signal Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (PCUs)	Saturation	Queue (PCUs)	Saturation
2032 Forecast Base Analysis				
Basingstoke Road (S)	19	89%	11	67%
Basingstoke Road (N)	10	84%	10	66%
Hyde End Road	17	87%	9	67%
2032 With Development Analysis				
Basingstoke Road (S)	24	94%	11	70%
Basingstoke Road (N)	13	91%	11	68%
Hyde End Road	24	95%	9	68%

Note : Analysis based on Existing Layout



- 7.22. The results in Table 7.4 above indicate that the existing junction would operate within capacity during the PM peak period during both the 2032 forecast base and with development scenarios.
- 7.23. During the 2032 AM peak period the junction is approaching capacity with a maximum degree of saturation of 89% on the Basingstoke Road (S) arm. When allowing for the proposed development, the maximum degree of saturation increases to 95% respectively. However, the corresponding queue increase is only 7 vehicles which is not considered to represent a severe impact.
- 7.24. The junction performs well in the PM peak hour with a maximum degree of saturation of 70% forecast in the 2032 'with development' scenario.

5. Church Lane / Basingstoke Mini Roundabout

- 7.25. Capacity assessments of the existing Church Lane / Basingstoke mini roundabout have been undertaken using Junctions 10 software for the 2032 'Forecast Base' and 2032 'With Development' scenarios for both the AM and PM peak hours.
- 7.26. The result of the assessments for each scenario is summarised at Table 7.5 below whilst the full capacity assessment outputs are included at **Appendix P**. A drawing depicting the junction geometries that have been used is provided at **Appendix Q**

Table 7.5: Church Lane / Basingstoke Road Mini Roundabout

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2032 Forecast Base Analysis				
Basingstoke Road (N)	48	1.03	137	1.14
Church Lane	12	0.94	12	0.94
Basingstoke Road (S)	51	1.06	2	0.63
2032 With Development Analysis				
Basingstoke Road (N)	50	1.04	156	1.17
Church Lane	13	0.95	13	0.94
Basingstoke Road (S)	53	1.06	2	0.64

Note : Analysis based on Existing Layout

- 7.27. The modelling at Table 7.5 shows that by 2032, the roundabout would be operating beyond capacity during the AM and PM peak periods irrespective of whether the proposed development at Hyde End Road was to come forward. The performance would be slightly exacerbated as a result of the proposed development traffic, albeit it should be noted that the excessive queuing shown, particularly on the Basingstoke (N) arm during the PM period, is a function of the exponential nature of the predicted increase in queuing that occurs when the model becomes unstable.



- 7.28. Given the high queuing levels predicted within the Forecast Base scenario, it is clear that the capacity constraint along this part of the corridor is a function of cumulative development rather than the impact of the proposed development, particularly given that the total increase of turning movements at the junction resulting from the development is only 29 trips, or less than one vehicle every 2 minutes.
- 7.29. Of note is that an Improvement scheme has already been secured at this junction as part of the South of M4 SDL mitigation package. When the scheme is implemented the capacity issues will be alleviated and hence the effects of the proposed development will be even less pronounced.

6. Hollow Lane / Arborfield Road / Hyde End Road / Beke Avenue Roundabout

- 7.30. Capacity assessments of the existing Hollow Lane / Arborfield Road / Hyde End Road / Beke Avenue Roundabout have been undertaken using JUNCTIONS 10 software for the 2032 'Forecast Base' and 2032 'With Development' scenarios for both the AM and PM peak hours.
- 7.31. Drawings depicting the junction geometries that have been used are provided at **Appendix Q**. The result of the assessments for each scenario is summarised at Table 7.6 below whilst the full capacity assessment outputs are included at **Appendix R**.

Table 7.6: Hollow Ln / Arborfield Rd / Hyde End Rd / Beke Avenue Roundabout

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2032 Forecast Base Analysis				
Arborfield Road	1	0.28	2	0.63
B3349 Hyde End Road	3	0.76	1	0.45
Beke Avenue	1	0.26	1	0.29
Hollow Lane	1	0.46	1	0.32
2032 With Development Analysis				
Arborfield Road	1	0.29	2	0.65
B3349 Hyde End Road	4	0.78	1	0.46
Beke Avenue	1	0.27	1	0.29
Hollow Lane	1	0.47	1	0.32

Note : Analysis based on Existing Layout

- 7.32. The results in Table 7.6 above indicate that the existing junction would operate within capacity during both peak periods during the 2032 forecast base year. The results also show that the junction would continue to operate within capacity when allowing for the effects of the traffic arising from the proposed development with no increase in the queues except at the Hyde End Road arm which increases by only 1 vehicle during the AM peak period.



7. Arborfield Road / Eastern Relief Road Roundabout

- 7.33. Capacity assessments of the existing Arborfield Road / Eastern Relief Road Roundabout have been undertaken using JUNCTIONS 10 software for the 2032 'Forecast Base' and 2032 'With Development' scenarios for both the AM and PM peak hours.
- 7.34. The result of the assessments for each scenario is summarised at Table 7.7 below whilst the full capacity assessment outputs are included at **Appendix S**. As before, drawings depicting the junction geometries that have been used are provided at **Appendix Q**.

Table 7.7: Arborfield Road / Eastern Relief Road Roundabout

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2032 Forecast Base Analysis				
Arborfield Road (E)	3	0.75	12	0.93
Arborfield Road (W)	6	0.86	1	0.48
Eastern Relief Road	2	0.63	45	1.01
2032 With Development Analysis				
Arborfield Road (E)	3	0.75	14	0.94
Arborfield Road (W)	7	0.88	1	0.48
Eastern Relief Road	2	0.64	53	1.02

Note : Analysis based on Existing Layout

- 7.35. The results in Table 7.6 above indicate that the existing junction would operate within capacity during the 2032 AM peak period and continue to do so when allowing for the proposed development, with a queue increase of only 1 vehicle at the Arborfield (W) approach.
- 7.36. During the 2032 PM forecast base peak period, the Eastern Relief Road arm is shown to operate marginally above capacity with an RFC of 1.01. When allowing for the proposed development, the RFC increases slightly to 1.02 with a corresponding queue increases of 8 vehicles along the Eastern Relief Road approach which is not considered to represent a severe impact.

Wider Highway Network

- 7.37. In addition to assessing the impact of the proposed development at the local junctions, an appraisal of traffic flows has also been undertaken along the main corridors in the vicinity of the site in order to ascertain the level of impact of the development along the wider highway network.



7.38. Table 7.8 below identifies the number of vehicles that are predicted along the wider highway corridors during the morning and evening peak hours in the 2032 'Forecast Base' and 2032 'With Development' scenarios.

Table 7.8: Two-Way Flows Along Wider Highway Network

Link	AM Peak Hour				PM Peak Hour			
	2032 Base	2032 With Dev	Change	% Change	2032 Flow	2032 With Dev	Change	% Change
A327 Shinfield Road	1879	1899	+19	+1.0%	1839	1834	-5	-0.3%
B3270 Lower Earley Way (West)	3861	3900	+38	+1.0%	3327	3320	-7	-0.2%
B3270 Lower Earley Way (East)	2615	2638	+22	+0.9%	2615	2612	-3	-0.1%
Shinfield Road (West of University Bridge)	1917	1945	+28	+1.5%	1297	1280	-17	-1.3%
Beke Avenue	329	334	+5	+1.6%	551	559	+8	+1.5%
Brookers Hill	822	831	+10	+1.2%	846	845	-1	-0.1%
Reading Road (East of Observer Way)	528	532	+4	+0.8%	766	755	-12	-1.5%
Observer Way	2088	2101	+13	+0.6%	2185	2190	+4	+0.2%
B3349 (South of Hyde End Road)	1791	1805	+13	+0.7%	1494	1509	+15	+1.0%
Basingstoke Road (North of Church Lane)	1669	1688	+19	+1.1%	1510	1532	+22	+1.5%

Note : Flows are Two-Way Total Vehicles

7.39. The appraisal of changes in traffic flows along the wider highway network demonstrates that the traffic flows generated by the proposed development would soon dissipate onto the various road corridors. It is noted that there are some corridors where flows are predicted to reduce slightly by a small number of vehicles. This reflects a slight redistribution of traffic that occurs between the model run scenarios.

7.40. As Table 7.8 shows, the predicted traffic increases along the wider highway network are low, typically equating to less than 2% when compared to the 'Forecast Base' flows. Traffic increases of these magnitudes lie within the day-to-day variation of traffic flows and would therefore not have a material impact on the performance of junctions along these areas of the wider highway network.



- 7.41. The NPPF in setting a benchmark of a 'Severe' impact is deliberate in that it should not prevent development with high sustainability credentials from preceding unless the residual traffic impacts are clearly unacceptable. In this respect it is evident that the proposed development would not have any significant effects on the operation of the junctions along the surrounding highway network and hence the resultant impact cannot be considered as being severe.



8.0 Assessment of Vehicular Impact (2038)

Context

- 8.1. The analysis presented within Section 7 of this Transport Assessment Report for the future year scenario of 2032 already allows for full completion and occupation of the proposed development. The appraisal therefore already provides a robust assessment of the vehicular impact of the proposed development in the context of planned developments in the area.
- 8.2. Notwithstanding the above, at the request of Wokingham Borough Council during scoping discussions, this section of the Transport Assessment Report presents the findings of supplementary analysis which assesses the impact of the vehicular trips generated by the proposed development during a future assessment year of 2038. It should be noted however that this assessment scenario represents a design year which is 13 years into the future and hence lies beyond the requirements set out in transport policy guidance. Accordingly, the results set out below should be considered in this context and are provided for information purposes only.

Detailed Junction Assessments

- 8.3. The detailed appraisals of the suite of junctions have been undertaken by using the WSTM outputs from the 2038 'Forecast Base' and 2038 'With Development' scenarios to demonstrate the future conditions.
- 8.4. The 2038 'Forecast Base' traffic flows derived from the WSTM model for the morning and evening peak hours are depicted at **Appendix T**. The corresponding morning and evening peak hour flows from the 2038 'With Development' model are also presented at **Appendix T**.
- 8.5. The junctions have again been assessed using the robust 'Demand flows' obtained from the WSTM model.

Site Accesses

- 8.6. The assessments of the proposed Site Access / Appleton Way Priority Junction and Site Access / Hyde End Road priority junction have been undertaken using JUNCTIONS 10 for the 2038 'With Development' scenario for both the AM and PM peak hours. The result of the assessments are summarised at Table 8.1 and Table 8.2 below whilst the full capacity assessment outputs are included at **Appendix U**.



Table 8.1: Proposed Site Access / Appleton Way Priority Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2038 With Development Analysis				
Site Access - Left Out	0	0.02	0	0.00
Site Access - Right Out	1	0.05	0	0.03
Appleton Way - Right in	0	0.01	0	0.02

Note : Analysis based on Drawing No. HD068 - 003 P3

Table 8.2: Proposed Site Access / Hyde End Road Priority Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2038 With Development Analysis				
Site Access - Left Out	1	0.05	0	0.03
Site Access - Right Out	1	0.17	0	0.04
Hyde End Road - Right in	1	0.06	1	0.08

Note : Analysis based on Drawing No. HD068 - 003 P3

- 8.7. The results in Table 8.1 and Table 8.2 above indicate that the proposed site accesses would continue to operate within capacity with minimal queuing along all approaches during the 2038 future year scenarios.

Other Junction Assessments

- 8.8. Capacity assessments of the remaining junctions have been undertaken for the 2038 'Forecast Base' and 2038 'With Development' scenarios for both the AM and PM peak hours. The results are summarised in Tables 8.3 to Table 8.7 below whilst the full capacity assessment outputs are also included within **Appendix U**.

Table 8.3: Appleton Way / Hyde End Road Priority Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2038 Forecast Base Analysis				
Appleton Way – Left	0	0.00	0	0.00
Appleton Way – Right	2	0.67	1	0.07
Hyde End Road - Right	0	0.00	0	0.00
2038 With Development Analysis				
Appleton Way – Left	1	0.08	0	0.01
Appleton Way – Right	3	0.76	1	0.09
Hyde End Road - Right	0	0.02	0	0.02



Table 8.4: Hyde End Road / Basingstoke Road Signal Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (PCUs)	Saturation	Queue (PCUs)	Saturation
2038 Forecast Base Analysis				
Basingstoke Road (S)	18	87%	11	71%
Basingstoke Road (N)	11	86%	10	63%
Hyde End Road	16	85%	9	71%
2038 With Development Analysis				
Basingstoke Road (S)	19	88%	12	72%
Basingstoke Road (N)	11	87%	11	65%
Hyde End Road	18	89%	9	73%

Table 8.5: Church Lane / Basingstoke Road Mini Roundabout

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2038 Forecast Base Analysis				
Basingstoke Road (N)	72	1.07	194	1.21
Church Lane	16	0.96	12	0.94
Basingstoke Road (S)	45	1.05	2	0.65
2038 With Development Analysis				
Basingstoke Road (N)	62	1.05	208	1.22
Church Lane	19	0.97	14	0.95
Basingstoke Road (S)	46	1.05	2	0.63



Table 8.6: Hollow Ln / Arborfield Rd / Hyde End Rd / Beke Av Signal Junction

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2038 Forecast Base Analysis				
Arborfield Road	1	0.30	2	0.64
B3349 Hyde End Road	4	0.80	1	0.46
Beke Avenue	1	0.28	1	0.29
Hollow Lane	1	0.50	1	0.34
2038 With Development Analysis				
Arborfield Road	1	0.30	2	0.67
B3349 Hyde End Road	5	0.83	1	0.47
Beke Avenue	1	0.29	1	0.29
Hollow Lane	1	0.51	1	0.34

Table 8.7: Arborfield Road / Eastern Relief Road Roundabout

Approach	AM Peak Hour		PM Peak Hour	
	Queue (Vehs)	RFC	Queue (Vehs)	RFC
2038 Forecast Base Analysis				
Arborfield Road (E)	4	0.78	15	0.95
Arborfield Road (W)	8	0.89	1	0.53
Eastern Relief Road	2	0.66	75	1.04
2038 With Development Analysis				
Arborfield Road (E)	4	0.77	19	0.96
Arborfield Road (W)	9	0.91	1	0.54
Eastern Relief Road	2	0.66	95	1.06

- 8.9. The analysis demonstrates that the Appleton Way / Hyde End Road priority junction would operate within capacity during the 2038 with development scenario. Similarly, the Hyde End Road / Basingstoke Road signal junction would operate within capacity during the Forecast Base and With Development scenarios, albeit the junction would be approaching capacity during the AM peak hour with a degree of saturation of 89%.
- 8.10. The Church Lane / Basingstoke Road mini roundabout is shown to operate over capacity during both the AM and PM 2038 forecast base scenarios. When allowing for the proposed development, the results are broadly similar with the queues at the Basingstoke (N) arm decreasing by 10 vehicles during the AM peak period and increasing by 14 vehicles in the PM peak period.



- 8.11. At the Hollow Lane Roundabout in Shinfield, the effect of the proposed development traffic on queuing levels in 2038 would be minimal with no significant changes to the RFC of the roundabout during each peak period.
- 8.12. Similarly, the effect of the proposed development traffic on queuing levels in 2038 would be minimal at the Arborfield Road/Eastern Relief Road roundabout during the AM peak period. During the PM peak period the roundabout is shown to operate over capacity at the Eastern Relief Road with an RFC of 1.04 during the forecast base scenario. The RFC increases marginally to 1.06 when allowing for the proposed development.
- 8.13. It is evident therefore that the capacity constraint relates to the allowance for planned development up to 2038 rather than a direct impact of the proposed development. Notably, a significant element of future growth in this area of the network is likely to compromise strategic development at the proposed Loddon Garden Village SDL development to the east of Shinfield. If the future growth was to manifest in this way then the Loddon Garden Village site is likely to include measures to mitigate impacts in the area, including along the Shinfield Eastern Relief Road corridor.

Wider Highway Network

- 8.14. Similarly to that undertaken in Section 7 of this Transport Assessment Report, in addition to assessing the impact of the proposed development at the local junctions, an appraisal of traffic flows has also been undertaken along the main corridors in the vicinity of the site in order to ascertain the level of impact of the development along the wider highway network during 2038.
- 8.15. Table 8.8 below identifies the number of vehicles that are predicted along the wider highway corridors during the morning and evening peak hours in the 2038 'Forecast Base' and 2038 'With Development' scenarios.



Table 8.8: Two-Way Flows Along Wider Highway Network

Link	AM Peak Hour				PM Peak Hour			
	2038 Base	2038 With Dev	Change	% Change	2038 Flow	2038 With Dev	Change	% Change
A327 Shinfield Road	1985	1983	-2	-0.1%	1879	1895	+16	+0.9%
B3270 Lower Earley Way (West)	3843	3873	+30	+0.8%	3468	3427	-41	-1.2%
B3270 Lower Earley Way (East)	2664	2672	+8	+0.3%	2651	2645	-6	-0.2%
Shinfield Road (West of University Bridge)	1954	1970	+16	+0.8%	1303	1310	+7	+0.5%
Beke Avenue	334	333	-1	-0.3%	553	558	+5	+0.9%
Brookers Hill	782	762	-21	-2.6%	866	867	+2	+0.2%
Reading Road (East of Observer Way)	543	544	+1	+0.2%	798	784	-14	-1.7%
Observer Way	2163	2163	0	0.0%	2218	2223	+5	+0.2%
B3349 (South of Hyde End Road)	1797	1845	+49	+2.7%	1535	1532	-4	-0.2%
Basingstoke Road (North of Church Lane)	1683	1672	-12	-0.7%	1579	1582	+3	+0.2%

Note : Flows are Two-Way Total Vehicles

- 8.16. As Table 8.8 shows, the predicted traffic increases along the wider highway network are very low, typically equating to less than 3% when compared to the 'Forecast Base' flows. Traffic increases of these magnitudes lie within the day-to-day variation of traffic flows and would therefore not have a material impact on the performance of junctions along these areas of the wider highway network.
- 8.17. There are some instances where traffic flows would decrease slightly. This is due to the traffic adopting different routings in response to the different traffic flows and highway infrastructure that is reflected within the future year WSTM traffic model.
- 8.18. Based on the above it is concluded that the traffic attributable to the proposed development would not result in any significant impacts to the operation of the wider highway network during the 2038 future year scenario.



9.0 Appraisal of Non-Car Travel

Context

- 9.1. The significant majority of the trip generation in the morning and evening peak hours will be related to residents departing and returning from work. Journey to Work census data has therefore been used as a reasonable proxy for determining the number of movements for non-car modes during these peak hours.
- 9.2. The proposed development lies within the Shinfield South ward and Journey to Work Census Data for 2011 has been used to establish the mode share of person trips in the ward.
- 9.3. The census travel to work data is set out within Table 9.1 below, as well as the associated number of trips for each mode. This has been calculated using the vehicle trip rates identified at Section 5.

Table 9.1: Non-Car Trip Generation

Mode of Travel	2011 Census Mode Share	Two Way Development Trips (Peak Hour)
Pedestrian	3%	4
Cyclist	2%	3
Bus	4%	5
Rail	5%	6
Vehicular	83%	107
Passenger	4%	5
Total	100%	130

- 9.4. An appraisal of the suitability of the non-car networks to accommodate the trips that will be generated is presented below for each mode of travel.
- 9.5. It should also be noted that a full assessment of existing transport conditions including the accessibility of local services is provided at Section 3 of this report and details of the proposed transport links within the development to existing routes are included at Section 4.

Walk and Cycle Trips

- 9.6. Table 9.1 identifies that 4 walk trips and 3 cycle trips would arise from the development site during each peak hour as well as 5 trips by bus which will involve walking to nearby bus stops. Similarly, the 6 trips by rail are likely to occur by residents first walking to bus stops to access services at Reading or instead cycle nearby railway stations.



- 9.7. The peak hour walk and cycle trips are likely to represent residents walking to work from the site to nearby locations such as the Thames Valley Science Park or local facilities within Shinfield. Such journeys will also be represented in the cycle trip forecasts, albeit these may also include trips to destinations which are further afield. A proportion of the cycle trips may also comprise residents performing linked trips to/from work via Reading and Earley rail stations.
- 9.8. Taking into account the information above and location of key facilities and services set out in Section 3 of this report, it is considered that the walk and cycle trips are likely to occur along the following key routes to and from the proposed development.
- Route A: To the north-east towards Shinfield Village Centre, continuing towards Lower Earley and Reading.
 - Route B: To the south-west towards the Local SANG, Shinfield Garden Centre and Spencers Wood.
 - Route C: To the north-west towards Ryeish Green.
 - Route D: To the north-east and Millworth Lane Recreation Ground.
- 9.9. As the development is split into two separate parcels, located to the west and east of Hyde End Road, the route descriptions have been divided to reflect the different starting points and access arrangements. This approach takes into account how future residents from each parcel may travel along different routes to reach the same destinations.
- Route A: To the north-east towards Shinfield Village, continuing towards Lower Earley and Reading
- 9.10. Future residents within the western parcel can access Shinfield Village and wider destinations such as Lower Earley and Reading by travelling north along Appleton Way and Westall Street, where 2m footways are present on both sides of the carriageway.
- 9.11. At the junction with Hyde End Road, a pedestrian island crossing with dropped kerbs and tactile paving is provided. From here, a lit footway with a width of generally 1.2m continues north along the eastern side of Hyde End Road for approximately 400m towards School Green. Footways are then available at both sides of the road to the north of School Green and a signal crossing is available at the frontage of school green. These footways connect to the footway network at Arborfield Road, Hollow Lane and ultimately Shinfield Road to the north.
- 9.12. For access to services in Shinfield Village such as Shinfield Infant & Nursery School, the community centre, health centre, pharmacy and local shops, residents can continue north along the Hyde End Road corridor. All these facilities are located within approximately 800m–1,000m of the site.



- 9.13. Alternatively, residents can travel via public footpath SHIN FP14 that routes along the northern side of Appleton Way, to High Copse at the west and north along Bolton Drive and Beke Avenue which each have a 2m footway at one side and a 3m shared use footway / cycleway at the other.
- 9.14. Additionally, High Copse also connects to a permissive path that routes along the western frontage of the Shinfield West development, providing an alternative route segregated from traffic c700m north to Alder Grove Primary School.
- 9.15. Residents travelling beyond Shinfield Village can continue north along Hollow Lane, which provides a connection to Shinfield Road and routes towards Lower Earley and Reading. A shared use footway/cycleway is present along the eastern side of Hollow Lane and continues along Shinfield Road which then routes towards Reading town centre and other key destinations such as the University of Reading and Royal Berkshire Hospital.
- 9.16. Future residents within the eastern parcel can also access Shinfield Village and Reading via Hyde End Road. From the parcel's main access point, a new 3m shared footway/cycleway is proposed along the site frontage. A pedestrian island crossing is proposed near the Appleton Way junction, which provides a link to the western parcel and its north and east connections.

Route B: To the south-west towards the Local SANG, Shinfield Garden Centre and Spencers Wood

- 9.17. Future residents within the western parcel can travel along the internal 2m wide recreational footpath along the periphery of the site. This footpath provides two access points at the southern boundary, linking to a permissive path that routes from High Copse to an approximately 2.4m wide crossing with dropped kerbs and tactile paving at Hyde End Road which leads to the Langley Mead SANG footpath network and car park.
- 9.18. Alternatively, residents can use the footway connection on the eastern frontage of the eastern parcel, which leads onto Hyde End Road where a new pedestrian island crossing is proposed. From here, residents can access the internal footway connections within the eastern parcel which links directly into the SANG footpath network.
- 9.19. The permissive path which routes along the southern frontage of the western development parcel, also connects to the permissive path that routes 500m south adjacent to Hyde End Road towards Shinfield Garden Centre. Beyond the garden centre, a footway continues adjacent to Hyde End Road travelling into Spencers Wood. Once the route reaches Croft Road, the footway widens and provides a continuous route into the centre of Spencers Wood.



- 9.20. Future residents within the eastern parcel will have access to a footway network that links directly into the SANG footpath network. To travel towards Shinfield Garden Centre and Spencers Wood, residents can use the crossing on Hyde End Road that connects to the permissive path leading to the garden centre and Spencers Wood.

Route C: To the north-west towards Ryeish Green

- 9.21. Future residents within the western parcel can travel towards Ryeish Green using a combination of local footway connections and public rights of way. Residents can travel via public footpath SHIN FP14 that routes along the northern side of Appleton Way, to High Copse at the west.
- 9.22. Footways of 2m widths then provide a link to the permissive path that routes along the western frontage of Shinfield West and Footpath SHIN 13, which continues west towards Hyde End Lane. Hyde End Lane includes a continuous 1.5m footway along the eastern side of the carriageway, providing a connection to the facilities within Ryeish Green.
- 9.23. This route is largely segregated from traffic and includes a mix of surfaced paths through residential areas and gravel or natural surfaces along public rights of way through green spaces and lighting is generally present along Appleton Way. These paths provide access to destinations such as the Ryeish Green Sports Hub, Oakbank Secondary School, and wider rural footpath connections towards Three Mile Cross.
- 9.24. Similarly, future residents from the eastern parcel can route through the development to the proposed crossing on Hyde End Road, then follow Appleton Way westward as described above.

Route D: To Millworth Lane Recreation Ground

- 9.25. Future residents within the eastern parcel will have direct access to the proposed Millworth Lane Recreation Ground via a pedestrian link proposed on the northern boundary of the parcel, where pedestrians could then travel to Millworth Lane.
- 9.26. Alternatively, residents from either the eastern or western parcel can travel north along Hyde End Road (as described in Route A) and turn into Millworth Lane. A 2m footway is provided along the southern side of Millworth Lane as far as the allotments. Beyond this point, the route continues as a gravel-surfaced access road leading to the recreation grounds and a footpath link within Langley Mead SANG.

Public Transport Trips

- 9.27. It is evident from Table 9.1 that, based on the existing local mode share, the development would generate some 5 bus trips during each peak hour. A further 6 rail trips would be generated which are most likely to also manifest as either bus trips (or cycle trips to a lesser degree).



- 9.28. As detailed within Section 3, there are two primary bus services operating in close proximity to the development parcels. The nearest bus stops are located on Bolton Lane to the north-west of the site and are served by the Reading 600 bus. These stops are approximately 500m walking distance from the centre of the site. The Reading 600 service operates between Thames Valley Science Park, Spencers Wood and Reading (via the A33), with a frequency of one bus per hour on weekdays and Saturdays.
- 9.29. Another option for future residents is the bus stops located on Hollow Lane, approximately 850m walking distance north of the development site. These stops are served by both the Reading 600 and the Leopard 3 services. The Leopard 3 operates between Reading (via Shinfield Road), Shinfield, Arborfield, and Wokingham. The service runs at a frequency of four buses per hour on weekdays and Saturdays between Reading and Arborfield, with one of those services continuing onwards to Wokingham each hour.
- 9.30. Both the Reading 600 and Leopard 3 services provide direct connections to Reading town centre, including Reading Railway Station.
- 9.31. For residents who choose to cycle, there are several railway stations within a reasonable cycling distance. Reading Station is approximately a 30-minute cycle to the north of the site and can be reached via Shinfield Road, which includes sections of shared use cycleways. Alternatively, Green Park Station, located around a 20-minute cycle to the west, is accessible primarily via on-carriageway routes. Finally, Earley Station is approximately a 25-minute cycle to the north-east and is reachable using a combination of residential roads and shared use cycleways.
- 9.32. All three stations offer cycle parking facilities, with secure covered spaces available at Reading and Green Park in particular.



10.0 Summary and Conclusions

Context

- 10.1. This Transport Assessment has been prepared by Abley Letchford, on behalf of Bloor Homes (Southern) and the University of Reading, in relation to the proposed residential development at Land to the east and west of Hyde End Road at Shinfield located to the south of Reading. A copy of the proposed site layout for the development is included at **Appendix A** of this report.
- 10.2. This Transport Assessment relates to a "Full application for the erection of 184 no. dwellings (C3 Use Class) together with associated hard and soft landscaping, drainage infrastructure, parking, access and associated works" at Hyde End Road.
- 10.3. It is proposed that the western parcel would be accessed via a new simple priority junction to be formed onto Appleton Way. Access into the eastern parcel would make use of the existing Langley Mead SANG priority junction onto Hyde End Road.

Accessibility

- 10.4. The location of the proposed development is consistent with national, regional and local policy aspirations. There is a range of existing and planned jobs, schools, shops, community facilities and amenities, which are accessible within reasonable walking and cycling distance reducing the need to travel by private car.
- 10.5. The proposed development is also well positioned relative to a wider range of major employment, commercial, retail and recreational facilities located in the town centres of Reading and Wokingham which are currently accessible by public transport. A significant proportion of journeys arising from the proposed development could therefore be undertaken by non-car modes in accordance with the transport policy aspirations articulated at all levels of government.

Travel by Foot and Cycle

- 10.6. The proposed pedestrian and cycle provision has been designed to provide a permeable network within the site. Particular emphasis has been given to creating a number of connections to the surrounding area for future residents to use at each parcel of development to ensure direct routes are available for the key desire lines to Shinfield, Spencers Wood and Reading
- 10.7. Notably, a new pedestrian island crossing is promoted on Hyde End Road to connect the development parcels to each other and a 3m shared use pedestrian / cycleway route is being provided along Hyde End Road at the site frontage.



- 10.8. In addition, the potential to improve pedestrian connectivity towards School Green in the vicinity of Shinfield Infant & Nursery School has been identified. A possible enhancement scheme that could be promoted is shown on Drawing No. HD068 - 008/P1 at **Appendix J**. Whilst the works shown on the Drawing can be delivered with land designated as adopted highway, it is recognised that alternative potential enhancement could be achieved in this area, particularly if the pedestrian access arrangement for the school were to be reconfigured.

Travel by Public Transport

- 10.9. The 600 service operates at bus stops located on Bolton Drive a c500m walk from the centre of the site offering a 60-minute frequency service between Mere oak park and Ride and Reading. In addition, the leopard 3 service operates at a 15-minute frequency through the Hollow Lane Corridor with bus stops located c850m walking distance from the centre of the site. Pedestrian routes to these bus stops from the proposed site has helped to inform the location of the new pedestrian accesses at the north of each parcel in order to help facilitate bus travel. These services will therefore offer future residents a good level of accessibility for bus journeys.

Travel by Car

- 10.10. Vehicular access to the western parcel accommodating 68 units will be achieved by a new simple priority junction with Appleton Way. This includes a 5.5m wide carriageway with 2m footways at either side. The proposed priority access is shown at Drawing No. HD068-003/P3 attached as **Appendix F** and has been designed to accommodate junction visibility splays of 2.4 x 43m, commensurate with the speed limit of 30mph along Appleton Way.
- 10.11. The eastern parcel accommodating 116 units is proposed to be accessed by utilising the existing Langley Mead SANG car park access onto Hyde End Road. It is proposed to reconfigure the carriageway within the eastern site to provide a 5.5m wide access street routing into the proposed residential area and the entrance to the Langley Mead SANG car park has been reconfigured to be formed off the southern side of the access street. Junction visibility splays of 2.4 x 90m have been safeguarded for the access which are commensurate with the recorded speeds of 37mph along the Hyde End Road corridor, as also depicted at **Appendix F**.
- 10.12. The internal streets within the development, including the access junctions onto Appleton Way and Hyde End Road, have been designed to accommodate large service and emergency vehicle movements throughout the development in a safe and satisfactory manner.



- 10.13. Vehicular parking will be provided in a combination of ways including on-street parking, within squares and mews, on-plot driveways and garages. The application of the Wokingham Borough Council parking calculator identifies a requirement for 46 visitor and unallocated spaces. The proposals respond positively to this requirement by providing 48 visitor / unallocated spaces throughout the layout in accordance with the standard. The resultant parking provision equates to an overall ratio of 2.64 spaces per dwelling.
- 10.14. It is recognised that the alignment of Hyde End Road is likely to benefit from carriageway widening at the location of two bends which lie to the south of the site. A drawing which depicts a proposed improvement scheme is attached as **Appendix J**. Importantly, pedestrian movements along the corridor would continue to be accommodated along the parallel path that routes along the western side of Hyde End Road.

Traffic Impact

- 10.15. Use has been made of Wokingham Borough Council's Strategic Traffic Model (WSTM) in order to ensure that the traffic impact of the development proposals is assessed on a common and agreed basis. The modelling scenarios allow for committed and planned development throughout Wokingham Borough. The impact of the proposed development is therefore assessed in a cumulative manner which accounts for the effects of other strategic planned development in the area.
- 10.16. It has been demonstrated that the proposed site access junctions would operate within capacity with minimal queuing along the approaches during both peak hours. This is the case for both the 2032 and 2038 future year scenarios. It is concluded therefore that the proposed access arrangements can satisfactorily accommodate the traffic generated by the proposed development.
- 10.17. The capacity analysis for the nearby junctions on the highway network has demonstrated that the effect of the proposed development traffic on capacity and queuing levels would not be significant during the 2032 and 2038 scenarios.
- 10.18. Similarly, the appraisal of changes in traffic flows along the wider highway network demonstrates that the traffic flows generated by the proposed development would soon dissipate onto the various road corridors. The resultant increases in traffic along the road corridors beyond Shinfield village lie within the day-to-day variation of traffic flows and would therefore have no discernible impact.
- 10.19. It is therefore concluded that the traffic attributable to the proposed development would not result in any significant impacts to the operation of the highway network in the vicinity of the development.



Conclusion

- 10.20. The analysis within this Transport Assessment Report has demonstrated that the proposed development accords with the key transport tests as set out in the NPPF. Accordingly, the proposed development is considered to be acceptable in terms of highways and transport matters.



Appendices



Appendix A - Proposed Layout

KEY

- PUBLIC OPEN SPACE
- PLAY AREA
- AFFORDABLE RENTED DWELLING
- AFFORDABLE SHARED OWNERSHIP DWELLING OR FIRST HOME

High Cops Cottages

BEALES GROVE

Tanner's Copse

HYDE END ROAD, SHINFIELD - DETAILED SITE LAYOUT

PEGASUS GROUP



Appendix B - Wokingham Borough Council Cycle Map

My Journey Wokingham is a behaviour change campaign promoting active and sustainable travel.

Cycling is a low impact exercise, which can be built into a daily routine, saves you money, improves your health and helps the local environment. A 30 minute ride a day, 5 days a week, is the best way to build your cardiovascular fitness, reducing the risk of heart disease and stroke.



Keep yourself safe when cycling

- Follow the highway code www.highwaycode.co.uk
- Ride positively, decisively and position yourself well clear of the kerb
- Cycle training is a good option if you're new or returning to cycling - see www.myjourneywokingham.com/events
- Consider wearing a helmet
- Keep your bike roadworthy
- Don't forget, lights are necessary after dark and hi-vis clothing or accessories will help you be seen
- Never undertake large vehicles, especially near junctions
- When cycling on routes shared with pedestrians, always warn others of your presence by use of a bell, adjust your speed accordingly, and avoid cycling too closely. Some pedestrians may be visually or hearing impaired so please take extra care.

Cycle hubs

- Finchampstead (FBC Centre)** - A local location for regular term-time cycle training, with the advantage of a cycle track, café, library and children's play area.
- Montague Park (Floreat Montague Park Primary School)** - A local location for cycle training during school holidays.
- Woodford Park Bike Hub** - A local location for regular term-time cycle training.
- Shinfield St Mary's Junior School** - A local location for cycle training during school holidays.

Signs for cyclists



Shared-use path:
A shared-use path is one which can be used by cyclists as well as pedestrians. On such paths cyclists must give way to pedestrians.



Segregated shared-use paths:
A segregated shared-use path is one which has some form of physical separation distinguishing the cyclist and pedestrian areas, usually a delineator white line, a raised white line or a kerb.



Cycle route:
For cyclists only.



Recommended for Cyclists:
Route ahead recommended for cyclists.



No cycling:
Cycling is NOT permitted on the path or in the areas marked by these signs.

Western Area Cycle Maps

Off-Carriageway Routes

These routes are considered to be suitable for cycling all year round and are separated from the carriageway.

On-Carriageway Routes

These routes are dedicated cycle routes on the carriageway.

Quiet Links

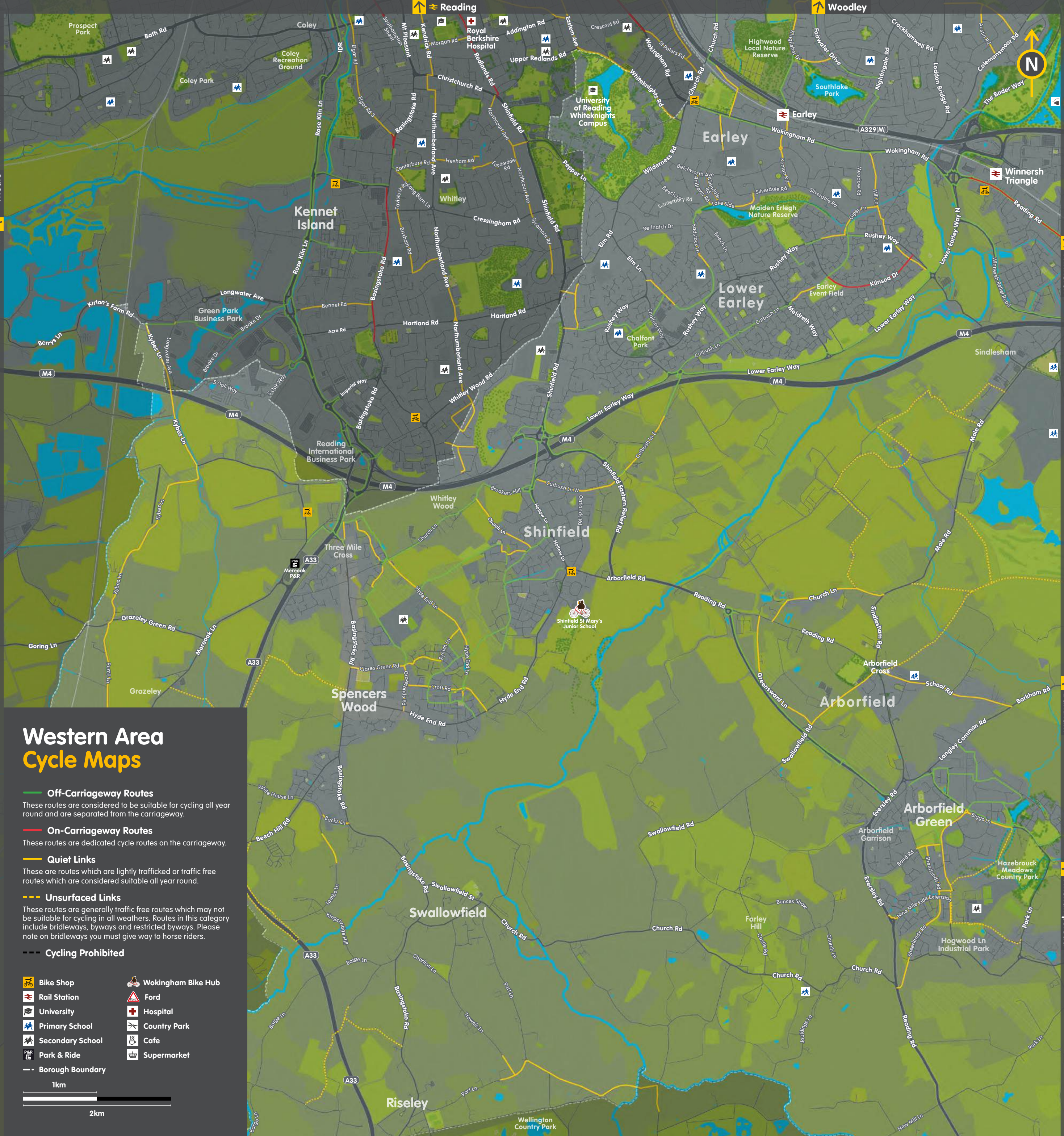
These are routes which are lightly trafficked or traffic free routes which are considered suitable all year round.

Unsurfaced Links

These routes are generally traffic free routes which may not be suitable for cycling in all weathers. Routes in this category include bridleways, byways and restricted byways. Please note on bridleways you must give way to horse riders.

Cycling Prohibited

- | | |
|------------------|--------------------|
| Bike Shop | Wokingham Bike Hub |
| Rail Station | Ford |
| University | Hospital |
| Primary School | Country Park |
| Secondary School | Cafe |
| Park & Ride | Supermarket |
| Borough Boundary | |



- Avonit Cycling** (Bikeability training provider for Wokingham) www.avonitcycling.co.uk - getting more people onto bikes by teaching little people how to cycle in traffic, by giving adults confidence to ride and by helping organisations implement sustainable transport policies
- Sprockets** www.sprockets.club - British Cycling Go-Ride Club for 3 - 17 year olds, to improve cycling skills, confidence and ability
- Wokingham Cycle Club** www.wokinghamcc.org.uk - for cycling on road together with club rides and other cycling related and social events
- National rail enquiries - cycling** www.nationalrail.co.uk/stations_destinations/cyclists.aspx
- Cycling UK** www.cyclinguk.org
- British Cycling** www.britishcycling.org.uk
- Bikeability** www.bikeability.org.uk
- Sustrans** (includes maps of national cycle network) www.sustrans.org.uk
- Wokingham Borough Council** www.wokingham.gov.uk
- My Journey website** www.myjourneywokingham.com

Useful Links

- Steve Johnson** - Cycle Services (mobile cycle repair and servicing) 07879494345
- Gary Neilson** - Dr Bike 07882 021314
- Dr Bike:** Alongside being mobile mechanics, Dr Bikes also attend some of our My Journey events and carry out bike checks.
- Bia Cycling shop and cafe** - www.biacycling.com
- KC Sports** - www.freewebs.com/kcsport/cycles
- Mountain Trax** - www.mountain-trax.com
- Rotec Cycles** - www.rotectcyclesberkshire.com
- Berkshire Cycle Co** - www.berkshirebikes.com
- Cycle Shops:** cycle maintenance can be carried out at these shops

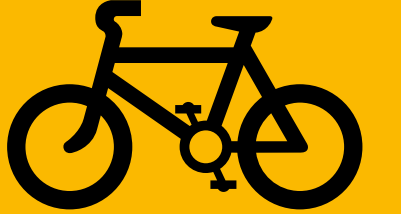
Cycle Maintenance

Cycle Hubs: Cycle training for adults and children is usually carried out at one of our four cycle hubs.

Bikeability: Bikeability is the Department for Transport's national award scheme for cycle training in England primarily for children and young people. Bikeability Levels 1, 2 and 3 are offered to Wokingham schools every year, particularly targeting Year 5/6 pupils. Our cycle training provider is Avonit Cycling.

Bikeability Levels 1, 2 and 3 holiday courses are also run at one of our four cycle hubs.

Cycle Training



CYCLE MAP WESTERN AREA 2022

- Arborfield
- Lower Earley
- Maiden Erlegh
- Riseley
- Shinfield
- Spencers Wood
- Swallowfield



WOKINGHAM BOROUGH COUNCIL



Wokingham Borough Cycle Routes

www.myjourneywokingham.com



- CR1** — Cycling Route 1
- CR2** — Cycling Route 2
- CR3** — Cycling Route 3 (NCN422)
- CR4** — Cycling Route 4 (NCN4/NCN 23)
- CR5** — Cycling Route 5

- Bike Shop
- Rail Station
- University
- Primary School
- Secondary School
- Park & Ride
- - - Borough Boundary
- Wokingham Bike Hub
- Ford
- Hospital
- Country Park
- Cafe
- Supermarket

ROYAL BOROUGH OF WINDSOR & MAIDENHEAD



HAMPSHIRE





Appendix C - Bus Service Information

Mondays to Fridays except public holidays

	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am
Wokingham Broad Street		5.57					6.50			7.35			8.27			
+ Wokingham Hospital		5.58					6.51			7.36			8.28			
Barkham St. James Road		6.08					7.03			7.49			8.40			
California Crossroads Ratepayers Hall		6.10					7.06			7.52			8.43			
Arborfield Green Harvest Path	5.45	6.16	6.32	6.50	7.06		7.13	7.25	7.40	8.00	8.15	8.30	8.50	9.00	9.09	9.18
Arborfield Green Sheerlands Road	5.47	6.19	6.35	6.53	7.09		7.16	7.28	7.43	8.04	8.18	8.33	8.53	9.03	9.12	9.21
Arborfield Cross The Swan	5.51	6.23	6.40	6.58	7.14		7.21	7.33	7.48	8.09	8.23	8.38	8.58	9.08	9.17	9.26
Shinfield School Green	5.56	6.29	6.46	7.04	7.20		7.28	7.40	7.55	8.16	8.30	8.45	9.04	9.14	9.23	9.32
Thames Valley Science Park	▼	▼	▼	▼	▼		▼	▼	▼	▼	▼	▼	▼	▼	9.27	▼
+ Royal Berkshire Hospital main entrance	6.11	6.47	7.07	7.26	7.44		7.58	8.11	8.26	8.47	9.01	9.14	9.30	9.40	9.49	9.55
+ Central Reading Station Road stop SA	6.20	6.57	7.17	7.37	7.56		8.11	8.24	8.39	8.59	9.13	9.26	9.41	9.51	10.00	10.07

	am	am	am	am	am	am					pm	pm	pm	pm
Wokingham Broad Street		9.12				10.12	then at		12	until	1.12			
+ Wokingham Hospital		9.13				10.13			13		1.13			
Barkham St. James Road		9.25				10.25			25		1.25			
California Crossroads Ratepayers Hall		9.28				10.28			28		1.28			
Arborfield Green Harvest Path		9.35		10.04		10.35			04 35		1.35		2.04	
Arborfield Green Sheerlands Road		9.38		10.07		10.38			07 38		1.38		2.07	
Arborfield Cross The Swan		9.43		10.12		10.43			12 43		1.43		2.12	
Shinfield School Green	9.35	9.49	10.04	10.18	10.34	10.49			04 18 34 49		1.49	2.04	2.18	2.34
Thames Valley Science Park	▼	▼	▼	10.22	▼	▼			▼ 22 ▼ ▼		▼	▼	2.22	▼
+ Royal Berkshire Hospital main entrance	9.58	10.12	10.28	10.43	10.58	11.13			28 43 58 13		2.13	2.28	2.43	3.00
+ Central Reading Station Road stop SA	10.10	10.24	10.40	10.55	11.10	11.25			40 55 10 25		2.25	2.40	2.55	3.13

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Mondays to Fridays except public holidays

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Wokingham Broad Street	2.10					3.17				4.25					5.21	
+ Wokingham Hospital	2.11					3.18				4.26					5.22	
Barkham St. James Road	2.23					3.31				4.40					5.36	
California Crossroads Ratepayers Hall	2.26					3.34				4.43					5.39	
Arborfield Green Harvest Path	2.33	2.50		3.08	3.24	3.45	4.00	4.19	4.37	4.51	5.05	5.21	5.35	5.46	6.00	
Arborfield Green Sheerlands Road	2.36	2.53		3.11	3.27	3.48	4.03	4.22	4.40	4.54	5.08	5.24	5.38	5.49	6.03	
Arborfield Cross The Swan	2.41	2.58		3.16	3.32	3.53	4.08	4.27	4.45	4.59	5.13	5.29	5.43	5.54	6.07	
Shinfield School Green	2.47	3.04	3.14	3.22	3.38	3.59	4.14	4.33	4.51	5.05	5.19	5.35	5.49	6.00	6.13	
Thames Valley Science Park	▼	▼	▼	3.26	▼	▼	▼	4.37	▼	▼	▼	5.40	▼	▼	▼	
+ Royal Berkshire Hospital main entrance	3.13	3.30	3.40	3.52	4.09	4.29	4.44	5.02	5.17	5.32	5.47	6.04	6.13	6.22	6.35	
+ Central Reading Station Road stop SA	3.26	3.44	3.54	4.06	4.23	4.43	4.58	5.16	5.31	5.46	6.01	6.17	6.26	6.35	6.48	

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Wokingham Broad Street			6.21			7.22		8.09								
+ Wokingham Hospital			6.22			7.23		8.10								
Barkham St. James Road			6.35			7.35		8.21								
California Crossroads Ratepayers Hall			6.37			7.37		8.23								
Arborfield Green Harvest Path	6.13	6.29	6.44	7.11	7.31	7.44	8.08	8.29	8.44		9.44		10.44		11.44	
Arborfield Green Sheerlands Road	6.16	6.32	6.47	7.13	7.33	7.46	8.10	8.31	8.46		9.46		10.46		11.46	
Arborfield Cross The Swan	6.20	6.36	6.51	7.17	7.37	7.50	8.14	8.34	8.49		9.49		10.49		11.49	
Shinfield School Green	6.26	6.42	6.57	7.23	7.43	7.56	8.20	8.39	8.54		9.54		10.54		11.54	
Thames Valley Science Park	6.30	▼	▼	7.26	▼	▼	▼	▼	▼		▼		▼		▼	
+ Royal Berkshire Hospital main entrance	6.49	7.02	7.15	7.43	8.01	8.13	8.36	8.52	9.07	9.35	10.07	10.35	11.07	11.35	12.07	
+ Central Reading Station Road stop SA	7.02	7.13	7.26	7.54	8.11	8.23	8.45	9.01	9.15	9.45	10.15	10.45	11.15	11.45	12.15	

Saturdays

	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am
Wokingham Broad Street	6.15		7.15				8.12				9.17					10.17	
+ Wokingham Hospital	6.16		7.16				8.13				9.18					10.18	
Barkham St. James Road	6.25		7.26				8.24				9.28					10.29	
California Crossroads Ratepayers Hall	6.27		7.28				8.27				9.31					10.32	
Arborfield Green Harvest Path	6.33	7.08	7.34	8.04			8.34		9.04		9.38		10.07		10.38	10.53	11.07
Arborfield Green Sheerlands Road	6.36	7.11	7.37	8.07			8.37		9.07		9.41		10.10		10.41	10.56	11.10
Arborfield Cross The Swan	6.40	7.15	7.41	8.11			8.41		9.11		9.45		10.15		10.46	11.01	11.15
Shinfield School Green	6.45	7.20	7.47	8.17	8.32		8.47	9.02	9.17	9.31	9.51	10.06	10.21	10.37	10.52	11.07	11.21
+ Royal Berkshire Hospital main entrance	7.00	7.35	8.04	8.34	8.50		9.05	9.21	9.36	9.50	10.10	10.26	10.41	10.58	11.13	11.28	11.42
- Central Reading Station Road stop SA	7.09	7.44	8.13	8.43	8.59		9.15	9.31	9.46	10.00	10.21	10.37	10.53	11.10	11.25	11.40	11.55

	am	am	am	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Wokingham Broad Street		11.13					12.13				1.15					2.17	
+ Wokingham Hospital		11.14					12.14				1.16					2.18	
Barkham St. James Road		11.26					12.26				1.28					2.29	
California Crossroads Ratepayers Hall		11.29					12.29				1.31					2.32	
Arborfield Green Harvest Path	11.21	11.35	11.51	12.06	12.21		12.36	12.52	1.06	1.22	1.38	1.53	2.08	2.24	2.39	2.54	3.09
Arborfield Green Sheerlands Road	11.24	11.38	11.54	12.09	12.24		12.38	12.54	1.08	1.24	1.40	1.55	2.10	2.26	2.41	2.56	3.11
Arborfield Cross The Swan	11.29	11.43	11.59	12.14	12.29		12.43	12.59	1.13	1.29	1.44	1.59	2.14	2.30	2.45	3.00	3.15
Shinfield School Green	11.35	11.49	12.05	12.20	12.35		12.49	1.05	1.19	1.35	1.50	2.05	2.20	2.36	2.51	3.06	3.21
+ Royal Berkshire Hospital main entrance	11.57	12.11	12.27	12.42	12.57		1.11	1.27	1.41	1.56	2.11	2.26	2.41	2.56	3.11	3.26	3.41
- Central Reading Station Road stop SA	12.10	12.24	12.40	12.55	1.10		1.24	1.40	1.55	2.10	2.25	2.40	2.55	3.10	3.25	3.40	3.55

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Saturdays

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Wokingham Broad Street		3.16					4.16					5.17				6.17
+ Wokingham Hospital		3.17					4.17					5.18				6.18
Barkham St. James Road		3.29					4.28					5.30				6.29
California Crossroads Ratepayers Hall		3.32					4.31					5.33				6.32
Arborfield Green Harvest Path	3.25	3.39	3.54	4.09	4.24		4.39	4.54	5.09			5.40		6.09		6.39 7.09
Arborfield Green Sheerlands Road	3.27	3.41	3.56	4.11	4.26		4.41	4.56	5.12			5.43		6.12		6.42 7.11
Arborfield Cross The Swan	3.31	3.46	4.01	4.16	4.31		4.46	5.01	5.17			5.48		6.17		6.46 7.15
Shinfield School Green	3.37	3.52	4.07	4.22	4.37		4.52	5.07	5.23	5.39	5.54	6.08	6.23	6.38	6.52	7.21
+ Royal Berkshire Hospital main entrance	3.56	4.11	4.26	4.41	4.56		5.11	5.26	5.42	5.57	6.12	6.25	6.40	6.55	7.09	7.38
- Central Reading Station Road stop SA	4.10	4.25	4.40	4.55	5.10		5.25	5.40	5.55	6.10	6.25	6.37	6.52	7.07	7.21	7.50

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Wokingham Broad Street	7.17		8.09								
+ Wokingham Hospital	7.18		8.10								
Barkham St. James Road	7.30		8.21								
California Crossroads Ratepayers Hall	7.32		8.23								
Arborfield Green Harvest Path	7.38	8.00	8.29	8.44		9.44		10.44		11.44	
Arborfield Green Sheerlands Road	7.40	8.02	8.31	8.46		9.46		10.46		11.46	
Arborfield Cross The Swan	7.44	8.06	8.35	8.49		9.49		10.49		11.49	
Shinfield School Green	7.50	8.12	8.40	8.54		9.54		10.54		11.54	
+ Royal Berkshire Hospital main entrance	8.06	8.28	8.54	9.07	9.35	10.07	10.35	11.07	11.35	12.07	
- Central Reading Station Road stop SA	8.18	8.40	9.04	9.15	9.45	10.15	10.45	11.15	11.45	12.15	

Sundays and public holidays

	am	am	am	am	am	am	am	pm	pm	pm	pm	pm	pm	pm	pm	pm
Arborfield Cross Harvest Path	8.50	9.20	9.50	10.20	10.50	11.20	11.50	12.20	12.50	1.20	1.50	2.20	2.50	3.20	3.50	4.20
Arborfield Green Sheerlands Road	8.53	9.23	9.53	10.22	10.52	11.22	11.52	12.22	12.52	1.22	1.52	2.22	2.52	3.22	3.52	4.22
Arborfield Cross The Swan	8.58	9.28	9.57	10.26	10.56	11.26	11.56	12.26	12.56	1.27	1.57	2.26	2.56	3.26	3.56	4.26
Shinfield School Green	9.05	9.35	10.03	10.32	11.02	11.32	12.02	12.32	1.02	1.33	2.03	2.32	3.02	3.32	4.02	4.32
 Royal Berkshire Hospital main entrance	9.24	9.54	10.22	10.52	11.23	11.53	12.22	12.52	1.22	1.53	2.22	2.51	3.20	3.50	4.20	4.49
 Central Reading Station Road stop SA	9.35	10.05	10.32	11.03	11.34	12.04	12.33	1.04	1.35	2.06	2.34	3.03	3.32	4.02	4.33	5.00

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Arborfield Cross Harvest Path	4.50	5.20	5.50	6.20	6.50	7.16	7.46	8.45	9.55		
Arborfield Green Sheerlands Road	4.52	5.22	5.52	6.22	6.52	7.18	7.48	8.47	9.57		
Arborfield Cross The Swan	4.56	5.26	5.56	6.26	6.56	7.22	7.52	8.51	10.01		
Shinfield School Green	5.02	5.32	6.02	6.32	7.02	7.28	7.58	8.57	10.07	10.54	11.54
 Royal Berkshire Hospital main entrance	5.18	5.48	6.18	6.47	7.17	7.43	8.14	9.09	10.19	11.06	12.06
 Central Reading Station Road stop SA	5.29	5.59	6.29	6.57	7.27	7.53	8.24	9.17	10.27	11.14	12.14

Mondays to Fridays except public holidays

	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am
Central Reading Station Road stop SA	5.45	6.05	6.20	6.35	6.50	7.05	7.20	7.35	7.50	8.05	8.20	8.35	8.50	9.05	9.20	
Royal Berkshire Hospital main entrance	5.51	6.11	6.26	6.42	6.57	7.13	7.28	7.44	7.59	8.14	8.29	8.44	8.59	9.14	9.29	
Thames Valley Science Park	▼	▼	▼	▼	7.14	▼	▼	▼	▼	8.38	▼	▼	▼	▼	9.46	
Shinfield School Green	6.02	6.26	6.41	6.59	7.19	7.37	7.54	8.10	8.25	8.43	8.51	9.05	9.19	9.34	9.51	
Arborfield Cross The Swan	6.07	6.31	6.46	7.04	7.25	7.43	8.00	8.16	8.31	8.48	8.56	9.10	9.24		9.56	
Arborfield Green Sheerlands Road	6.11	6.36	6.51	7.09	7.30	7.48	8.05	8.21	8.36	8.53	9.01	9.15	9.29		10.01	
Arborfield Green Harvest Path	6.13	6.38	6.53	7.11	7.32	7.51	8.08	8.24	8.38	8.55	9.03	9.17	9.31		10.03	
California Crossroads Ratepayers Hall	6.19		7.00			7.58			8.45				9.38			
Barkham St. James Road	6.22		7.03			8.01			8.49				9.41			
Wokingham Station Interchange	6.33		7.16			8.16			9.02				9.52			
Wokingham Broad Street	6.35		7.19			8.20			9.05				9.55			

	am	am	am	am	am	am	then at					until	pm	pm	pm	pm	pm
Central Reading Station Road stop SA	9.35	9.50	10.05	10.20	10.35	10.50		05	20	35	50		1.50	2.05	2.20	2.35	2.55
Royal Berkshire Hospital main entrance	9.44	9.59	10.14	10.29	10.44	10.59		14	29	44	59		1.59	2.14	2.29	2.45	3.05
Thames Valley Science Park	▼	▼	▼	10.46	▼	▼		▼	46	▼	▼		▼	▼	2.48	▼	▼
Shinfield School Green	10.03	10.18	10.33	10.51	11.03	11.18		33	51	03	18		2.18	2.33	2.51	3.08	3.29
Arborfield Cross The Swan		10.23		10.56		11.23			56		23		2.23	2.38	2.56	3.13	3.34
Arborfield Green Sheerlands Road		10.28		11.01		11.28			01		28		2.28	2.43	3.01	3.18	3.39
Arborfield Green Harvest Path		10.30		11.03		11.30			03		30		2.30	2.45	3.03	3.20	3.41
California Crossroads Ratepayers Hall		10.37				11.37					37			2.52			3.49
Barkham St. James Road		10.40				11.40					40			2.55			3.52
Wokingham Station Interchange		10.51				11.51				51		3.06			4.05		
Wokingham Broad Street		10.54				11.54				54		3.09			4.08		

continues on next page

Mondays to Fridays except public holidays

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Central Reading Station Road stop SA	3.10	3.25	3.40	3.55	4.10		4.25	4.40	4.55	5.10	5.25	5.40	5.55	6.10	6.25	6.45	7.05
Royal Berkshire Hospital main entrance	3.21	3.38	3.53	4.06	4.21		4.36	4.50	5.05	5.20	5.34	5.49	6.04	6.19	6.34	6.54	7.13
Thames Valley Science Park	3.41	▼	▼	▼	4.45		▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Shinfield School Green	3.47	4.05	4.20	4.35	4.51		5.07	5.18	5.32	5.45	5.59	6.14	6.27	6.42	6.54	7.14	7.32
Arborfield Cross The Swan	3.52	4.10	4.25	4.40	4.56		5.12	5.23	5.37	5.50	6.04	6.19	6.32	6.47	6.59	7.19	7.37
Arborfield Green Sheerlands Road	3.57	4.15	4.30	4.45	5.01		5.17	5.28	5.42	5.55	6.09	6.24	6.37	6.52	7.04	7.24	7.42
Arborfield Green Harvest Path	3.59	4.17	4.32	4.47	5.03		5.19	5.30	5.44	5.57	6.11	6.26	6.39	6.54	7.06	7.26	7.44
California Crossroads Ratepayers Hall				4.55					5.51					7.00			7.50
Barkham St. James Road				4.58					5.54					7.03			7.53
Wokingham Station Interchange				5.11					6.06					7.14			8.04
Wokingham Broad Street				5.15					6.09					7.17			8.06

	pm	pm	pm	pm	pm	pm	pm	pm
Central Reading Station Road stop SA	7.30	8.10	9.10	9.25	10.10		10.25	11.10 11.25
Royal Berkshire Hospital main entrance	7.37	8.17	9.17	9.35	10.17		10.35	11.17 11.35
Shinfield School Green	7.55	8.34	9.32		10.32			11.32
Arborfield Cross The Swan	8.00	8.38	9.36		10.36			11.36
Arborfield Green Sheerlands Road	8.05	8.42	9.40		10.40			11.40
Arborfield Green Harvest Path	8.07	8.44	9.42		10.42			11.42

Saturdays

	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am	am
 Central Reading Station Road stop SA	6.10	6.30	6.55	7.25	7.55		8.10	8.25	8.40	8.50	9.05	9.20	9.35	9.50	10.05	10.20
 Royal Berkshire Hospital main entrance	6.16	6.36	7.01	7.31	8.01		8.16	8.31	8.46	8.56	9.12	9.27	9.42	9.57	10.13	10.28
Shinfield School Green	6.28	6.49	7.14	7.45	8.16		8.31	8.47	9.02	9.12	9.28	9.43	9.58	10.13	10.30	10.45
Arborfield Cross The Swan	6.33	6.54	7.19	7.50	8.21			8.52		9.17		9.48		10.18	10.35	10.50
Arborfield Green Sheerlands Road	6.37	6.58	7.23	7.55	8.26			8.57		9.22		9.53		10.23	10.39	10.54
Arborfield Green Harvest Path	6.39	7.00	7.25	7.57	8.28			8.59		9.24		9.55		10.25	10.41	10.56
California Crossroads Ratepayers Hall	6.45		7.31		8.34					9.30				10.32		
Barkham St. James Road	6.48		7.34		8.37					9.33				10.35		
 Wokingham Station Interchange	6.58		7.45		8.49					9.45				10.45		
Wokingham Broad Street	7.00		7.47		8.52					9.48				10.48		

	am	am	am	am	am	am	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
 Central Reading Station Road stop SA	10.35	10.50	11.05	11.20	11.35		11.50	12.05	12.20	12.35	12.50	1.05	1.20	1.35	1.50	2.05
 Royal Berkshire Hospital main entrance	10.43	10.58	11.13	11.28	11.43		11.58	12.13	12.28	12.43	12.58	1.13	1.28	1.44	1.59	2.14
Shinfield School Green	11.00	11.15	11.30	11.47	12.02		12.17	12.32	12.48	1.03	1.18	1.33	1.47	2.03	2.18	2.33
Arborfield Cross The Swan	11.05	11.20	11.35	11.52	12.07		12.22	12.37	12.53	1.08	1.23	1.38	1.52	2.08	2.23	2.38
Arborfield Green Sheerlands Road	11.09	11.24	11.39	11.56	12.11		12.26	12.42	12.58	1.13	1.28	1.43	1.57	2.13	2.28	2.43
Arborfield Green Harvest Path	11.11	11.26	11.41	11.58	12.13		12.28	12.44	1.00	1.15	1.30	1.45	1.59	2.15	2.30	2.45
California Crossroads Ratepayers Hall		11.33					12.34				1.36				2.36	
Barkham St. James Road		11.37					12.37				1.39				2.39	
 Wokingham Station Interchange		11.48					12.48				1.53				2.51	
Wokingham Broad Street		11.51					12.51				1.56				2.54	

continues on next page

Saturdays

	pm	pm	pm	pm	pm	pm	pm							pm	pm	pm	pm	
🚶 Central Reading Station Road stop SA	2.20	2.35	2.50	3.05	3.20		3.35	3.50	then at	05	20	35	50	until	4.50	5.05	5.20	5.35
🚶 Royal Berkshire Hospital main entrance	2.29	2.44	2.59	3.14	3.29		3.44	3.59		14	29	44	59		4.59	5.14	5.29	5.44
Shinfield School Green	2.48	3.03	3.18	3.33	3.48		4.03	4.18		33	48	03	18		5.18	5.33	5.48	6.03
Arborfield Cross The Swan	2.53	3.08	3.23	3.38	3.53		4.08	4.23		38	53	08	23		5.23		5.53	
Arborfield Green Sheerlands Road	2.58	3.13	3.28	3.43	3.58		4.13	4.28		43	58	13	28		5.28		5.58	
Arborfield Green Harvest Path	3.00	3.15	3.30	3.45	4.00		4.15	4.30		45	00	15	30		5.30		6.00	
California Crossroads Ratepayers Hall				3.36				4.36					36		5.37			
Barkham St. James Road				3.39				4.39					39		5.40			
🚶 Wokingham Station Interchange				3.49				4.49				49	5.52					
Wokingham Broad Street				3.52				4.52				52	5.55					

	am	am	am	am	am	am	pm	pm	pm	pm	pm	pm
Central Reading Station Road stop SA	5.50	6.10	6.30	6.45	7.15	8.10	9.10	9.25	10.10	10.25	11.10	11.25
Royal Berkshire Hospital main entrance	5.59	6.19	6.38	6.53	7.23	8.17	9.17	10.35	10.17	10.35	11.17	11.35
Shinfield School Green	6.17	6.37	6.56	7.11	7.41	8.33	9.33		10.33		11.33	
Arborfield Cross The Swan	6.22		7.01	7.16	7.46	8.37	9.37		10.37		11.37	
Arborfield Green Sheerlands Road	6.27		7.06	7.21	7.51	8.41	9.41		10.41		11.41	
Arborfield Green Harvest Path	6.29		7.08	7.23	7.53	8.43	9.43		10.43		11.43	
California Crossroads Ratepayers Hall	6.35			7.30								
Barkham St. James Road	6.37			7.32								
Wokingham Station Interchange	6.48			7.43								
Wokingham Broad Street	6.51			7.45								

Sundays and public holidays

	am	am	am	am	am	am	am	am	pm	pm	pm	pm	pm
 Central Reading Station Road stop SA	8.15	8.45	9.15	9.40	10.10	10.40	11.10	11.40	12.10	12.40	1.10	1.40	5.40
 Royal Berkshire Hospital main entrance	8.21	8.52	9.22	9.47	10.17	10.47	11.17	11.47	12.18	12.48	1.19	1.49	5.49
Shinfield School Green	8.36	9.07	9.37	10.03	10.33	11.03	11.33	12.03	12.36	1.06	1.37	2.07	6.07
Arborfield Cross The Swan	8.41	9.12	9.42	10.08	10.38	11.08	11.38	12.08	12.41	1.11	1.42	2.12	6.12
Arborfield Green Sheerlands Road	8.45	9.16	9.46	10.12	10.42	11.12	11.42	12.12	12.45	1.15	1.46	2.16	6.17
Arborfield Green Harvest Path	8.47	9.18	9.48	10.14	10.44	11.14	11.44	12.14	12.47	1.17	1.48	2.18	6.19

then every 30 mins until

	pm	pm	pm	pm	pm	pm	pm
 Central Reading Station Road stop SA	6.10	6.40	7.10	8.10	9.20	10.30	11.30
 Royal Berkshire Hospital main entrance	6.19	6.47	7.17	8.17	9.26	10.36	11.36
Shinfield School Green	6.37	7.04	7.34	8.33	9.41	10.51	11.51
Arborfield Cross The Swan	6.42	7.09	7.39	8.38	9.46		
Arborfield Green Sheerlands Road	6.46	7.13	7.43	8.42	9.50		
Arborfield Green Harvest Path	6.48	7.15	7.45	8.44	9.52		

MereOak park & ride towards Central Reading Station Road stop SD



travel time to
Central Reading 16-20 mins

Mon-Fri

5.55 am	3.47 pm
6.40 am	4.05 pm
7.12 am	4.22 pm
7.25 am	4.46 pm
7.40 am	5.05 pm
7.55 am	5.25 pm
8.10 am	5.45 pm
8.25 am	6.05 pm
8.40 am	6.10 pm
8.55 am	6.38 pm
9.10 am	6.45 pm
9.24 am	7.00 pm
9.39 am	7.35 pm
9.54 am	7.55 pm
10.09 am	8.25 pm
then every 15 mins until	8.55 pm
	9.25 pm
	10.00 pm
	10.40 pm
	11.20 pm
	11.50 pm
	1.09 pm
	1.24 pm
	1.39 pm
	1.54 pm
	2.08 pm
	2.28 pm
	2.45 pm
	3.07 pm
	3.23 pm

Sat

5.55 am	5.23 pm
6.42 am	5.38 pm
7.42 am	5.53 pm
8.12 am	6.08 pm
8.42 am	6.28 pm
9.09 am	6.43 pm
9.24 am	6.56 pm
9.39 am	7.25 pm
9.54 am	7.55 pm
10.09 am	8.25 pm
then every 15 mins until	8.55 pm
	9.25 pm
	10.00 pm
	10.40 pm
	11.20 pm
	11.40 pm
	1.54 pm
	2.06 pm
	2.23 pm
	2.38 pm
	2.53 pm
	3.08 pm
	3.23 pm
	3.38 pm
	3.53 pm
	4.08 pm
	4.23 pm
	4.38 pm
	4.53 pm
	5.08 pm

returning from Central Reading St Mary's Butts stop CS



travel time to
MereOak park&ride 22-25 mins

buses also leave from Station Road stop SD a few minutes later

Mon-Fri

5.18 am	4.35 pm
5.35 am	4.55 pm
6.00 am	5.15 pm
6.30 am	5.35 pm
6.45 am	5.55 pm
7.00 am	6.15 pm
7.15 am	6.35 pm
7.30 am	7.00 pm
7.45 am	7.30 pm
8.00 am	8.00 pm
8.15 am	8.30 pm
8.30 am	9.00 pm
then every 15 mins until	9.30 pm
	10.00 pm
	10.30 pm
	11.10 pm
	1.00 pm
	1.15 pm
	1.30 pm
	1.45 pm
	2.00 pm
	2.20 pm
	2.40 pm
	2.55 pm
	3.10 pm
	3.30 pm
	3.50 pm
	4.15 pm

Sat

5.18 am	10.30 pm
6.05 am	11.00 pm
6.35 am	
7.05 am	
7.35 am	
8.05 am	
8.30 am	
8.45 am	
9.00 am	
then every 15 mins until	
	4.30 pm
	4.45 pm
	5.00 pm
	5.15 pm
	5.30 pm
	5.50 pm
	6.10 pm
	6.30 pm
	7.00 pm
	7.30 pm
	8.00 pm
	8.30 pm
	9.00 pm
	9.30 pm
	10.00 pm

Mondays to Fridays except public holidays

	am	am	am	am	am	am	am	am			pm	pm	pm
Thames Valley Science Park		6.50		7.48		8.48		9.49		49		12.49	1.49
Spencers Wood Fullbrook Avenue		6.58		7.56		8.56		9.57		57		12.57	1.57
Riseley The Bull	6.19		7.17		8.16		9.17		then at these mins past each hour	18		1.18	
Swallowfield The Crown	6.25		7.23		8.23		9.24		24		1.24		
Spencers Wood Post Office	6.28		7.26		8.26		9.27		27		1.27		
Three Mile Cross Post Office	6.32	7.04	7.30	8.00	8.30	9.00	9.30	10.00	30	00	1.00	1.30	2.00
Central Reading St Mary's Butts stop CS	6.55	7.27	7.57	8.27	8.57	9.27	9.56	10.26	56	26	1.26	1.56	2.30

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
Thames Valley Science Park		3.01		4.01		5.06		5.51		6.41		7.41		8.41
Spencers Wood Fullbrook Avenue		3.10		4.10		5.14		5.59		6.48		7.47		8.47
Riseley The Bull	2.25		3.25		4.25		5.25		6.20		7.18		8.08	
Swallowfield The Crown	2.31		3.31		4.31		5.31		6.26		7.24		8.14	
Spencers Wood Post Office	2.34		3.34		4.34		5.34		6.29		7.27		8.17	
Three Mile Cross Post Office	2.37	3.13	3.37	4.13	4.37	5.17	5.37	6.02	6.32	6.51	7.30	7.50	8.20	8.50
Central Reading St Mary's Butts stop CS	3.04	3.42	4.12	4.47	5.11	5.50	6.10	6.33	6.58	7.19	7.54	8.14	8.44	9.10

	pm	pm	pm	pm
Spencers Wood Fullbrook Avenue		10.32		11.42
Riseley The Bull	9.08		11.03	
Swallowfield The Crown	9.14		11.09	
Spencers Wood Post Office	9.17		11.12	
Three Mile Cross Post Office	9.20	10.35	11.15	11.45
Central Reading St Mary's Butts stop CS	9.40	10.54	11.34	12.04

all buses run via Mereok park&ride

see pages 6-7 for departure times

Saturdays

	am	am	am	am	am	am			pm	pm	pm	pm	pm
Thames Valley Science Park		7.49		8.49		9.49		49		5.49		6.41	
Spencers Wood Fullbrook Avenue		7.57		8.57		9.57		57		5.56		6.48	
Riseley The Bull	7.20	↓	8.19	↓	9.19	↓		19	↓	5.19	↓	6.09	↓
Swallowfield The Crown	7.25		8.24		9.24			24		5.24		6.14	
Spencers Wood Post Office	7.28	↓	8.27	↓	9.27	↓		27	↓	5.27	↓	6.17	↓
Three Mile Cross Post Office	7.32	8.00	8.31	9.00	9.30	10.00		30	00	5.30	5.59	6.20	6.51
Central Reading St Mary's Butts stop CS	7.53	8.23	8.53	9.23	9.53	10.23		53	23	5.51	6.21	6.41	7.09

then at
these
mins
past
each
hour

until

	pm	pm	pm	pm	pm	pm	pm
Thames Valley Science Park	7.41		8.41				
Spencers Wood Fullbrook Avenue	7.47		8.47		10.32		11.32
Riseley The Bull	↓	8.09	↓	9.09	↓	11.04	↓
Swallowfield The Crown		8.14		9.14		11.09	
Spencers Wood Post Office	↓	8.17	↓	9.17	↓	11.12	↓
Three Mile Cross Post Office	7.50	8.20	8.50	9.20	10.35	11.15	11.35
Central Reading St Mary's Butts stop CS	8.08	8.38	9.08	9.41	10.52	11.32	11.52

all buses run via MereOak park&ride

see pages 6-7 for departure times

Mondays to Fridays except public holidays

	am	am	am	am	am	am	am					pm	pm	pm	pm	
 Central Reading St Mary's Butts stop CS	5.35	6.00	6.30	7.00	7.30		8.00	8.30	then at these mins past each hour	00	30	until	1.00	1.30	2.00	2.40
 Central Reading Station Road stop SD	5.40	6.05	6.35	7.05	7.35		8.05	8.35		05	35		1.05	1.35	2.05	2.45
Three Mile Cross Post Office	6.04	6.31	7.01	7.32	8.02		8.32	9.02		32	02		1.32	2.02	2.33	3.13
Spencers Wood Post Office	6.07		7.04		8.05			9.05						2.05		3.16
Swallowfield The Crown	6.10		7.08		8.09			9.09						2.09		3.20
Riseley The Bull	6.13	↓	7.12	↓	8.12		↓	9.12			↓		12	↓	2.12	↓
Spencers Wood Fullbrook Avenue		6.36		7.37			8.37			37			1.37		2.39	
Thames Valley Science Park		6.43		7.44			8.44			44			1.44		2.47	
	pm	pm	pm	pm	pm		pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
 Central Reading St Mary's Butts stop CS	2.55	3.30	3.50	4.35	4.55		5.35	5.55	6.35	7.00	7.30	8.00	8.30	10.00	10.30	11.10
 Central Reading Station Road stop SD	3.00	3.35	3.55	4.41	5.01		5.41	6.01	6.41	7.05	7.35	8.05	8.35	10.05	10.35	11.15
Three Mile Cross Post Office	3.28	4.04	4.24	5.09	5.29		6.08	6.28	7.03	7.25	7.55	8.25	8.55	10.24	10.54	11.34
Spencers Wood Post Office		4.07		5.12			6.11		7.06		7.58		8.58		10.57	
Swallowfield The Crown		4.12		5.17			6.14		7.09		8.01		9.01		11.00	
Riseley The Bull	↓	4.15	↓	5.20	↓		6.17	↓	7.12	↓	8.04	↓	9.04	↓	11.02	↓
Spencers Wood Fullbrook Avenue	3.34		4.30		5.34			6.32		7.29		8.29		10.28		11.38
Thames Valley Science Park	3.42		4.38		5.41			6.38		7.35		8.35				

all buses run via Mereok park&ride

see pages 6-7 for departure times

Saturdays

	am	am	am	am	am	am	am				pm	pm	pm
 Central Reading St Mary's Butts stop CS	6.35	7.05	7.35	8.05	8.30	9.00	9.30	then at these mins past each hour	00 30	until	1.00	1.30	2.00
 Central Reading Station Road stop SD	6.40	7.10	7.40	8.10	8.35	9.05	9.35		05 35		1.05	1.35	2.05
Three Mile Cross Post Office	6.58	7.28	7.58	8.28	8.53	9.26	9.56		26 56		1.26	1.56	2.26
Spencers Wood Post Office	7.01		8.01		8.56		9.59		59			1.59	
Swallowfield The Crown	7.04		8.04		8.59		10.03		03			2.03	
Riseley The Bull	7.07		8.07		9.02		10.07		07			2.07	
Spencers Wood Fullbrook Avenue		7.32		8.32		9.31		31			1.31		2.31
Thames Valley Science Park		7.38		8.38		9.38		38			1.38		2.38

	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
 Central Reading St Mary's Butts stop CS	2.30	3.00	3.30	4.00	4.30	5.00	5.30	5.50	6.30	7.00	7.30	8.00
 Central Reading Station Road stop SD	2.35	3.05	3.35	4.05	4.35	5.05	5.35	5.55	6.35	7.05	7.35	8.05
Three Mile Cross Post Office	2.56	3.26	3.56	4.26	4.56	5.26	5.56	6.16	6.55	7.25	7.55	8.24
Spencers Wood Post Office	2.59		3.59		4.59		5.59		6.58		7.58	
Swallowfield The Crown	3.03		4.03		5.03		6.03		7.01		8.01	
Riseley The Bull	3.07		4.07		5.07		6.07		7.04		8.03	
Spencers Wood Fullbrook Avenue		3.31		4.31		5.31		6.21		7.29		8.28
Thames Valley Science Park		3.38		4.38		5.38		6.28		7.35		8.34

	pm	pm	pm	pm
 Central Reading St Mary's Butts stop CS	8.30	10.00	10.30	11.00
 Central Reading Station Road stop SD	8.35	10.05	10.35	11.05
Three Mile Cross Post Office	8.54	10.24	10.54	11.24
Spencers Wood Post Office	8.57		10.57	
Swallowfield The Crown	9.00		11.00	
Riseley The Bull	9.02		11.02	
Spencers Wood Fullbrook Avenue		10.28		11.28

all buses run via Mereok park&ride

see pages 6-7 for departure times

MereOak park&ride | Green Park | Central Reading

via Lime Square & Longwater Avenue

MereOak park&ride

650

Sundays only

	am	am	am	am	pm	pm	pm	pm	pm	pm	pm	pm	pm
MereOak park&ride	8.00	9.00	10.00	11.00	12.00	1.02	2.02	3.02	4.02	5.02	6.02	7.02	8.00
Green Park Lime Square	8.07	9.07	10.07	11.08	12.08	1.10	2.10	3.10	4.10	5.10	6.10	7.10	8.07
Green Park 300 Longwater Avenue	8.10	9.10	10.10	11.11	12.11	1.13	2.13	3.13	4.13	5.13	6.13	7.13	8.10
Central Reading St Mary's Butts stop CS	8.22	9.22	10.22	11.23	12.25	1.27	2.27	3.27	4.26	5.26	6.26	7.25	8.21

Central Reading | Green Park | MereOak park&ride

via Longwater Avenue & Lime Square

MereOak park&ride

650

Sundays only

	am	am	am	am	am	pm	pm	pm	pm	pm	pm	pm	pm
Central Reading St Mary's Butts stop CS	7.26	8.25	9.25	10.25	11.26	12.30	1.30	2.30	3.30	4.30	5.30	6.30	7.30
Central Reading Station Road stop SD	7.30	8.30	9.30	10.30	11.30	12.35	1.35	2.35	3.35	4.35	5.35	6.35	7.35
Green Park 300 Longwater Avenue	7.39	8.39	9.39	10.40	11.40	12.45	1.45	2.45	3.45	4.45	5.45	6.44	7.44
Green Park Lime Square	7.43	8.43	9.43	10.44	11.44	12.49	1.49	2.49	3.49	4.49	5.49	6.48	7.48
MereOak park&ride	7.53	8.53	9.53	10.54	11.54	12.59	1.59	2.59	3.59	4.59	5.59	6.58	7.58



Appendix D - Accident Information

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties			
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev	
Road No.	Date										
2nd Road No.	Time										
Grid Ref.	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

190356814	Monday	B3349 SCHOOL GREEN APPX 26M SW	Veh 1	Car	Turning right	SW to SE	Dri	F	35	Slight	
	11/11/2019	J/W HOLLOW LANE SHINFIELD	Veh 2	Car	Reversing	SE to NW					
R1: B 3349	1230hrs	Daylight:street lights present									
E 473,421	Dry										
N 167,885	Fine without high winds										
	30 mph										

C2 REVRSG SW TO NE FROM PRKNG SPACE COLL/W O/S C1 STAT WAITNG TO TRN RT SW TO SE.

190389480	Wednesday	A327 SHINFIELD EASTERN RELIEF	Veh 1	Car	Wait go ahead held	E to W	Dri	F	32	Slight	
	11/12/2019	ROAD J/W A327 SHINFIELD ROAD	Veh 1	Car	Wait go ahead held	E to W	RSP	F	10	Slight	
R1: A 327	1625hrs	SHINFIELD	Veh 1	Car	Wait go ahead held	E to W	RSP	M	12	Slight	
R2: A 327	Darkness: street lights present a		Veh 2	Goods < 3.5t	Going ahead	E to W					
E 473,310	Wet/Damp										
N 168,881	Fine without high winds										
	40 mph										

C1 TRAV E TO W ON APP TO ATS & BRKD SUDD DUE TO MALFUNCTION IN VEH. C1 WAS HIT IN RR BY LGV2 TRAV E TO W.

190394183	Monday	A329 HOLLOW LANE J/W B3349	Veh 1	Car	Wait go ahead held	NWto SE	Dri	F	33	Slight	
	16/12/2019	SCHOOL GREEN SHINFIELD	Veh 1	Car	Wait go ahead held	NWto SE	FSP	F	27	Slight	
R1: A 327	2018hrs		Veh 2	Car	Going ahead	NWto SE					
R2: B 3349	Darkness: street lights present a										
E 473,418	Dry										
N 167,948	Fine without high winds										
	40 mph										

C2 TRAV NW TO SE COLL/W RR C1 STAT AT TEMP ATS WAITNG TO TRAV NW TO SE. C2 FTS.

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties		
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

190401187 Tuesday A327 SHINFIELD EASTERN RELIEF ROAD J/W A327 SHINFIELD ROAD SHINFIELD
24/12/2019 1120hrs
R1: A 327 Daylight:street lights present
R2: A 327 Wet/Damp
E 473,656 Fine without high winds
N 168,912 30 mph

Causation Factor:	Participant:	Confidence:
1st: Aggressive driving	Vehicle 1	Very Likely
2nd: Careless/Reckless/In a hurry	Vehicle 1	Very Likely
3rd: Swerved	Vehicle 1	
C1 TRAV NW TO SE ON L/H BEND LST CONT ON WET C/WAY & LFT C/WAY N/S.		

200010061 Friday A327 SHINFIELD ROAD J/W B3470 LOWER EARLEY WAY WEST SHINFIELD
10/01/2020 0650hrs
R1: A 327 Daylight:street lights present
R2: B 3470 Wet/Damp
E 473,154 Fine without high winds
N 169,028 30 mph

Causation Factor:	Participant:	Confidence:
1st: Failed to judge other persons path or speed	Vehicle 1	Very Likely
MC1 TRN LFT S TO W MISJUDGED PATH OF VEH ON ITS N/S & COLL/W KERB.		

200149283 Wednesday A327 SHINFIELD ROAD J/W B3270 LOWER EARLEY WAY SHINFIELD
20/05/2020 1817hrs
R1: A 327 Daylight:street lights present
R2: B 3270 Dry
E 473,202 Fine without high winds
N 169,036 30 mph

Causation Factor:	Participant:	Confidence:
1st: Impaired by alcohol	Vehicle 1	Very Likely
C1 ENT RBT SE TO NW & COLL/W PC2 TRAV E TO W. C1 FTS. DRIVER C1 INTOX.		

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles				Casualties			
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

200227076 Thursday CHURCH LANE J/W SKYLARK CLOSE SHINFIELD
09/07/2020
R1: U 7508 1948hrs
R2: U 7508 Daylight:street lights present
E 473,160 Wet/Damp
N 168,122 Fine without high winds
30 mph

Causation Factor:	Participant:	Confidence:
1st: Slippery road (due to weather)	Vehicle 2	Very Likely
2nd: Failed to look properly	Vehicle 2	Very Likely
C2 TRN RT SE TO NE COLL/W C1 TRAV NE TO SW.		

200248968 Friday A327 ARBORFIELD ROAD J/W B3349 SCHOOL GREEN SHINFIELD
07/08/2020
R1: A 327 1427hrs
R2: B 3349 Daylight:street lights present
E 473,440 Dry
N 167,912 Fine without high winds
30 mph

Causation Factor:	Participant:	Confidence:
1st: Careless/Reckless/In a hurry	Vehicle 1	Possible
2nd: Failed to look properly	Vehicle 1	Possible
C2 ENT RBT IN N/K DIR CAUSNG MC1 TRAV IN N/K DIR TO LSE CONT.		

200280475 Monday A327 HOLLOW LANE J/W BROOKERS HILL SHINFIELD
07/09/2020
R1: A 327 1500hrs
R2: U 7508 Daylight:street lights present
E 473,100 Dry
N 168,598 Fine without high winds
30 mph

Causation Factor:	Participant:	Confidence:
1st: Disobeyed automatic traffic signal	Vehicle 1	Very Likely
C1 TRN RT N TO W COLL/W C2 TRAV S TO N.		

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties		
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

200314945 Wednesday HYDE END LANE THREE MILE
30/09/2020 CROSS EX LOC N/K
R1: U 7508 1506hrs
E 472,131 Daylight:street lights present
N 167,700 Wet/Damp
Raining without high winds
30 mph

Causation Factor: Participant: Confidence:
1st: Failed to look properly Vehicle 2 Possible
P2 XING C/WAY SW TO NE COLL/W C1 TRAV IN N/K DIR.

200316280 Tuesday A327 SHINFIELD ROAD J/W B3270
06/10/2020 LOWER EARLEY WAY WEST
R1: A 327 1329hrs
R2: B 3270 SHINFIELD
E 473,203 Daylight:street lights present
N 169,097 Dry
Fine without high winds
40 mph

LGV2 TRAV IN N/K DIR ON RBT COLL/W RR C1 TRN RT SE TO NE STAT AT RED ATS. LGV2 FTS.

210248883 Tuesday B3349 HYDE END ROAD APPX 25M
08/06/2021 NE J/W CROFT ROAD SHINFIELD
R1: B 3349 0100hrs
E 472,769 Darkness: no street lighting
N 166,681 Dry
Fine without high winds
40 mph

Causation Factor: Participant: Confidence:
1st: Exceeding speed limit Vehicle 1 Very Likely
2nd: Loss of control Vehicle 1 Very Likely
3rd: Impaired by alcohol Vehicle 1 Very Likely
4th: Careless/Reckless/In a hurry Vehicle 1 Very Likely
C1 TRAV NE TO SW LST CONT. DRIVER C1 INTOX

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles				Casualties			
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

210405614

R1: B 3349

R2: U 7508

E 471,564

N 167,369

Thursday

09/09/2021

1202hrs

Darkness: street lights present a

Dry

Fine without high winds

40 mph

B3349 BASINGSTOKE ROAD J/W SEVENOAKS DRIVE SPENCERS WOOD

Veh 1 Agric. veh

Going ahead

N to S

Dri

M 73

Slight

Veh 2 Car

Stopping

S to N

Causation Factor:	Participant:	Confidence:
1st: Illness or disability, mental or physical	Vehicle 1	Very Likely
AGV1 TRAV IN N/K DIR COLL/W C2 TRAV S TO N.		

210463313

R1: A 327

E 473,520

N 168,948

Thursday

14/10/2021

1042hrs

Daylight:street lights present

Dry

Fine without high winds

40 mph

A327 SHINFIELD EASTERN RELIEF ROAD APPX 115M NE J/W A327 SHINFIELD ROAD SHINFIELD

Veh 1 Car

Change lane to left

SW to NE

Dri

M 53

Slight

Veh 2 Taxi

Going ahead

SW to NE

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Vehicle 1	Very Likely
2nd: Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd: Poor turn or manoeuvre	Vehicle 1	Very Likely
4th: Inexperienced or learner driver/rider	Vehicle 1	Very Likely
5th: Inexperience with type of vehicle	Vehicle 1	Very Likely
6th: Dazzling sun	Vehicle 1	Possible
C1 TRAV SW TO NE IN LN2 CHNGD LN TO LFT & COLL/W TX2 TRAV SW TO NE		

220019270

R1: A 327

R2: B 3270

E 473,150

N 169,034

Friday

14/01/2022

1317hrs

Daylight:street lights present

Dry

Fine without high winds

30 mph

A327 SHINFIELD ROAD J/W B3270 LOWER EARLEY WAY READING

Veh 1 M/C > 500 cc

Going ahead

S to N

Dri

M 54

Slight

Veh 2 Car

Turning left

S to W

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Vehicle 2	Very Likely
2nd: Poor turn or manoeuvre	Vehicle 2	Possible
C2 TRN LFT S TO W COLL/W MC1 TRAV S TO N.		

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles				Casualties			
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

220252750 Friday B3349 HYDE END ROAD J/W CENTURY DRIVE SPENCERS WOOD Veh 1 Car Going ahead SE to NW Ped F 13 Slight
10/06/2022 0750hrs
R1: B 3349
R2: U 7508 Daylight:street lights present
E 472,319 Dry
N 166,541 Fine without high winds
40 mph

Causation Factor: Participant: Confidence:
1st: Failed to look properly Casualty 1 Very Likely
2nd: Careless/Reckless/In a hurry Casualty 1 Very Likely
PED XING C/WAY SW TO NE COLL/W C1 TRAV SE TO NW.

220348974 Friday MONTGOMMERY DRIVE APPX 25M NE J/W MAGILL CLOSE SPENCERS WOOD Veh 1 Car Parked 0 to 0 Dri M 32 Slight
05/08/2022 1530hrs Veh 2 Goods < 3.5t Going ahead SW to NE
R1: U 7508
Daylight:street lights present
E 471,891 Dry
N 166,593 Fine without high winds
30 mph

LGV2 TRAV IN N/K DIR PASSD C1 PRKD & COLL OCCRD. LGV2 FTS.

220435186 Wednesday A327 SHINFIELD ROAD J/W B3270 LOWER EARLEY WAY WEST SHINFIELD Veh 1 Car Going ahead W to E
28/09/2022 0855hrs Veh 2 Car Turning left N to E Dri M 47 Slight
R1: A 327
R2: U 3270 Daylight:street lights present
E 473,213 Wet/Damp
N 169,103 Fine without high winds
40 mph

Causation Factor: Participant: Confidence:
1st: Disobeyed automatic traffic signal Vehicle 1 Very Likely
2nd: Failed to look properly Vehicle 1 Very Likely
3rd: Inexperienced or learner driver/rider Vehicle 1 Possible
4th: Vehicle blind spot Vehicle 2 Possible
C1 TRAV W TO E ON RBT DISOBEYED RED ATS & COLL/W C2 TRN LFT N TO E.

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties		
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

220498728 Saturday WESTALL STREET J/W WESTALL STREET SHINFIELD
05/11/2022
R1: U 7508 1251hrs
R2: U 7508 Daylight:street lights present
E 473,171 Wet/Damp
N 167,666 Raining without high winds
30 mph

Causation Factor:	Participant:	Confidence:
1st: Poor turn or manoeuvre	Vehicle 1	Very Likely
2nd: Failed to look properly	Vehicle 1	Very Likely
3rd: Failed to judge other persons path or speed	Vehicle 1	
C1 TRAV NW TO S ON R/H BEND COL/W MC2 TRAV S TO NW ON L/H BEND.		

220518911 Thursday B3349 BASINGSTOKE ROAD J/W MAYFLOWER MEADOWS SPENCERS WOOD
17/11/2022
R1: B 3349 1711hrs
R2: U 7508 Darkness: street lights present a
E 471,559 Wet/Damp
N 167,399 Fine without high winds
40 mph

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Vehicle 1	Very Likely
2nd: Distraction in vehicle	Vehicle 1	Possible
3rd: Driver using mobile phone	Vehicle 1	
MC1 TRAV S TO N COLL/W RR C2 STAT AT RED ATS WAITNG TO TRAV S TO N.		

230118785 Tuesday A327 SHINFIELD ROAD J/W B3270 LOWER EARLEY WAY WEST READING
14/03/2023
R1: A 327 0810hrs
R2: B 3270 Daylight:street lights present
E 473,143 Dry
N 169,085 Fine without high winds
30 mph

C2 TRAV IN N/K DIR COLL/W C1 TRAV W TO E. C2 FTS.

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties			
			Veh No	Type	Manv	Dir	Class	Sex / Age / Sev			
Road No.	Date										
2nd Road No.	Time										
Grid Ref.	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

230154757 Saturday A327 SHINFIELD ROAD J/W B3270 Veh 1 Car Wait go ahead held N to S Dri F 26 Slight
08/04/2023 LOWER EARLEY WAY WEST Veh 2 Car Going ahead N to S
1741hrs SHINFIELD
R1: A 327 Daylight:street lights present
R2: B 3270 Dry
E 473,210 Fine without high winds
N 169,112 30 mph

C2 TRAV N TO S COLL/W RR C1 STAT WAITNG TO ENT RBT N TO S. C2 FTS.

230333371 Thursday A327 ARBORFIELD ROAD APPX 125M Veh 1 Car Going ahead W to E
27/07/2023 E J/W A327 SHINFIELD EASTERN Veh 2 Car Going ahead E to W Dri F 19 Serious
0959hrs RELIEF ROAD SHINFIELD Veh 3 Car Going ahead W to E
Daylight:street lights present
E 473,975 Dry
N 167,846 Fine without high winds
50 mph

Causation Factor:

1st: Failed to look properly
2nd: Uncorrected, defective eyesight

Participant:

Vehicle 1
Vehicle 1

Confidence:

Very Likely
Possible

C1 TRAV W TO E XED INTO OPP C/WAY & COLL/W C2 TRAV E TO W. C1 THEN LST CONT & COLL/W C3 TRAV W TO E.

230461938 Friday A327 SHINFIELD ROAD APPX 114M Veh 1 Car Turning left SW to NW
13/10/2023 NE J/W CUTBUSH LANE SHINFIELD Veh 2 Pedal cycle Going ahead NE to SW Dri M 21 Slight
1930hrs
R1: A 327 Darkness: street lights present a
R2: U Wet/Damp
E 473,138 Raining without high winds
N 168,829 30 mph

Causation Factor:

1st: Defective brakes

Participant:

Vehicle 2

Confidence:

Very Likely

C2 TRAV NE TO SW USING CYCLE LN COLL/W C1 TRN LFT SW TO NW

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties			
			Veh No	Type	Manv	Dir	Class	Sex / Age / Sev			
Road No.	Date										
2nd Road No.	Time										
Grid Ref.	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

230470652	Thursday	A327 HOLLOW LANE J/W BROOKERS HILL SHINFIELD	Veh 1	Car		Going ahead	N to S	Dri	F	43	Serious
	19/10/2023		Veh 2	Car		Going ahead	S to N	FSP	F	76	Serious
R1: A 327	1436hrs		Veh 2	Car		Going ahead	S to N	Dri	M	76	Slight
R2: U 7508	Daylight:street lights present										
E 473,103	Dry										
N 168,571	Fine without high winds										
	30 mph										

Causation Factor:	Participant:	Confidence:
1st: Fatigue	Vehicle 1	Very Likely
C1 TRAV N TO S XED INTO OPP C/WAY & COLL/W C2 TRAV S TO N.		

230496525	Saturday	A327 EASTERN RELIEF ROAD J/W SHINFIELD ROAD SHINFIELD	Veh 1	Car		Turning right	NE to NW				
	04/11/2023		Veh 2	M/C < 125 cc		Turning right	NE to NW	Dri	M	69	Slight
R1: A 327	1511hrs										
R2: A 327	Daylight:street lights present										
E 473,294	Wet/Damp										
N 168,875	Raining without high winds										
	30 mph										

Causation Factor:	Participant:	Confidence:
1st: Inadequate/Masked signs or road markings	Vehicle 1	Very Likely
2nd: Slippery road (due to weather)	Vehicle 2	Possible
3rd: Road layout (eg bend, hill etc.)	Vehicle 1	Very Likely
4th: Poor turn or manoeuvre	Vehicle 1	Very Likely
5th: Failed to look properly	Vehicle 1	Very Likely
6th: Dazzling sun	Vehicle 1	Very Likely
C1 TRN RT NE TO NW IN LN3 COLL/W MC2 TRN RT NE TO NW IN LN2		

230524335	Tuesday	CHURCH LANE J/W HYDE END LANE SHINFIELD	Veh 1	Car		Going ahead	NE to SW	Ped	F	14	Slight
	21/11/2023										
R1: U 7508	1621hrs										
R2: U 7508	Darkness: no street lighting										
E 471,833	Dry										
N 167,960	Fine without high winds										
	40 mph										

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Casualty 1	Very Likely
PED XING C/WAY SE TO NW COLL/W C1 TRAV NE TO SW.		

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles				Casualties			
			Veh No	Type	Manv	Dir	Class	Sex	Age	Sev
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

240016174 Thursday A327 SHINFIELD EASTERN RELIEF 11/01/2024 ROAD SHINFIELD EX LOC N/K
R1: A 327 1720hrs
R2: U 7508 Darkness: street lights present a
E 473,716 Dry
N 168,868 Fine without high winds
40 mph

Causation Factor:		Participant:	Confidence:
1st:	Careless/Reckless/In a hurry	Vehicle 1	Possible
2nd:	Careless/Reckless/In a hurry	Vehicle 2	Possible
C1 & C2 TRAV IN N/K DIR. COLL OCCRD & C1 LST CONT, NO FURTHER DETAILS.			

240026315 Thursday A327 SHINFIELD EASTERN RELIEF 18/01/2024 ROAD J/W CUTBUSH LANE EAST SHINFIELD
R1: A 327 0810hrs
R2: U 7508 Daylight:street lights present
E 473,863 Frost/Ice
N 168,712 Other
50 mph

Causation Factor:		Participant:	Confidence:
1st:	Failed to signal/Misleading signal	Vehicle 2	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 2	Very Likely
3rd:	Slippery road (due to weather)	Vehicle 1	Possible
4th:	Slippery road (due to weather)	Vehicle 2	Possible
C1 TRN LFT NE TO SE. C2 TRAV NW TO SE GAVE MISLEADING SIG. COLL OCCRD.			

240062604 Thursday B3349 BASINGSTOKE ROAD APPX 08/02/2024 33M N J/W CHURCH LANE THREE MILE CROSS.
R1: B 3349 1752hrs
Darkness: street lights present a
E 471,503 Wet/Damp
N 167,842 Raining without high winds
30 mph

Causation Factor:		Participant:	Confidence:
1st:	Slippery road (due to weather)	Vehicle 1	Very Likely
MC1 TRAV N TO S BRKD TO ALLOW PED TO X C/WAY & LST CONT ON WET C/WAY			

Details of Personal Injury Accidents for Period - 01/08/2019 to 31/07/2024 (60) months

Selection: Notes:

Selected using Manual Selection; Refined using Pre-defined

Query : NON MOTORWAY ACCIDENTS

Police Ref.	Day	Location Description	Vehicles					Casualties			
			Veh No	Type	Manv	Dir	Class	Sex / Age / Sev			
Road No.	Date										
2nd Road No.	Time										
Grid Ref.	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

240230414 Friday A327 SHINFIELD ROAD APPX 79M N Veh 1 Pedal cycle Going ahead N to S Dri M 38 Slight
17/05/2024 J/W B3270 LOWER EARLEY WAY Veh 2 Car O/take m/veh o/side N to S
R1: A 327 1741hrs READING
Daylight:street lights present
E 473,200 Dry
N 169,183 Fine without high winds
30 mph

C2 TRAV N TO S OVERTK PC1 TRAV N TO S. COLL OCCRD. C2 FTS.

240316453 Thursday A327 HOLLOW LANE J/W WYCHELM Veh 1 Goods < 3.5t Going ahead SE to NW
04/07/2024 ROAD SHINFIELD Veh 2 Car Turning right SE to NE Dri M 67 Slight
R1: A 327 1429hrs
R2: U 7508 Daylight:street lights present
E 473,337 Dry
N 168,107 Fine without high winds
30 mph

Causation Factor:

1st: Failed to look properly
2nd: Distraction in vehicle

Participant:

Vehicle 1
Vehicle 1

Confidence:

Very Likely
Possible

C1 TRAV SE TO NW COLL/W RR C2 TRN RT SE TO NE.



Appendix E - ATC Survey Data : Hyde End Road and Appleton Way

[illegible][illegible][illegible]

Shinfield - ATC 1 - Appleton Way

Produced by Streetwise Services Ltd.



Channel - Eastbound

Vehicle Flow

Hour	Min	11/09/2024 Wednesday	12/09/2024 Thursday	13/09/2024 Friday	14/09/2024 Saturday	15/09/2024 Sunday	16/09/2024 Monday	17/09/2024 Tuesday	5 Day Ave	7 Day Ave
0	0	2	2	2	5	4	1	0	2	3
1	0	0	1	1	1	2	1	0	1	1
2	0	2	0	0	1	1	0	1	2	1
3	0	0	2	1	4	2	2	1	2	2
4	0	2	3	3	0	0	2	1	2	2
5	0	5	7	10	5	1	7	6	7	6
6	0	16	26	15	11	7	18	24	20	17
7	0	90	106	87	19	14	111	118	102	78
8	0	126	140	106	44	24	113	120	121	96
9	0	47	66	61	53	55	42	57	55	54
10	0	37	34	40	88	51	38	42	38	47
11	0	35	41	39	59	61	56	46	43	48
12	0	52	39	42	45	70	37	36	41	46
13	0	36	28	57	65	47	51	50	44	48
14	0	46	41	55	52	35	40	50	46	46
15	0	99	97	98	55	36	86	89	94	80
16	0	52	82	74	51	38	71	60	68	61
17	0	90	70	65	46	31	85	75	77	66
18	0	72	50	60	49	43	47	54	57	54
19	0	33	53	43	30	28	32	51	42	39
20	0	30	31	33	24	20	23	30	29	27
21	0	15	13	19	14	17	19	25	18	17
22	0	12	9	11	14	4	4	9	9	9
23	0	3	3	10	8	3	5	7	6	6

Hour	7-19	782	794	784	626	505	777	797	787	724
Ranges:	6-22	876	917	894	705	577	869	927	897	824
	6-24	891	929	915	727	584	878	943	911	838
	0-24	902	944	932	743	594	891	952	924	851

Channel - Westbound

Vehicle Flow

Hour	Min	11/09/2024 Wednesday	12/09/2024 Thursday	13/09/2024 Friday	14/09/2024 Saturday	15/09/2024 Sunday	16/09/2024 Monday	17/09/2024 Tuesday	5 Day Ave	7 Day Ave
0	0	3	2	1	7	13	4	3	3	5
1	0	0	2	0	7	7	0	2	2	5
2	0	1	1	1	0	0	0	0	1	1
3	0	1	0	0	0	2	0	0	1	2
4	0	1	0	0	1	0	0	0	1	1
5	0	0	0	1	1	0	2	0	2	1
6	0	6	15	7	5	1	6	7	8	7
7	0	54	50	49	15	6	53	59	53	41
8	0	107	109	122	22	12	108	107	111	84
9	0	61	62	55	30	24	55	53	57	49
10	0	36	41	39	56	38	32	35	37	40
11	0	35	49	43	62	51	58	33	44	47
12	0	44	33	50	76	72	39	44	42	51
13	0	51	50	59	56	46	52	48	52	52
14	0	33	58	63	74	51	59	49	52	55
15	0	79	93	101	61	41	86	95	91	79
16	0	88	91	95	55	68	92	96	92	84
17	0	118	103	85	61	46	101	96	101	87
18	0	91	75	85	57	50	82	104	87	78
19	0	59	75	73	48	38	53	64	65	59
20	0	48	41	30	44	33	33	36	38	38
21	0	27	34	31	19	21	26	29	29	27
22	0	13	11	22	23	14	11	15	14	16
23	0	7	7	14	14	8	6	11	9	10

Hour
Ranges:

7-19	856	889	919	673	543	870	883	883	805
6-22	950	990	1009	764	612	946	970	973	892
6-24	957	997	1023	778	620	952	981	982	901
0-24	963	1002	1026	794	642	958	986	987	910

Shinfield - ATC 2 - Hyde End Road

Produced by Streetwise Services Ltd.



Channel - Northbound

	11/09/2024 Wednesday	12/09/2024 Thursday	13/09/2024 Friday	14/09/2024 Saturday	15/09/2024 Sunday	16/09/2024 Monday	17/09/2024 Tuesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	4016	3950	3881	2969	2574	3557	3992	3879	3563
Mean Speed	32.7	32.7	33.3	33.3	33.3	33.1	32.8	32.9	33.0
85%ile Speed	36.7	36.7	37.2	37.5	37.5	37.1	36.9	36.9	37.1
No. Vehicles > 40 MPH Limit	163	156	199	166	152	171	166	171	168
% Vehicles > 40 MPH Limit	4.1	3.9	5.1	5.6	5.9	4.8	4.2	4.4	4.8
No. Vehicles > 55 MPH	0	0	0	2	1	1	0	1	1
% Vehicles > 55 MPH	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

Channel - Southbound

	11/09/2024 Wednesday	12/09/2024 Thursday	13/09/2024 Friday	14/09/2024 Saturday	15/09/2024 Sunday	16/09/2024 Monday	17/09/2024 Tuesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	3971	3913	3905	3109	2493	3570	3778	3827	3534
Mean Speed	32.9	32.9	33.3	33.2	33.4	33.2	33.1	33.1	33.1
85%ile Speed	36.7	36.7	37.0	37.2	37.2	36.9	36.7	36.8	36.9
No. Vehicles > 40 MPH Limit	155	148	157	138	135	152	135	149	146
% Vehicles > 40 MPH Limit	3.9	3.8	4.0	4.4	5.4	4.3	3.6	3.9	4.2
No. Vehicles > 55 MPH	2	2	0	0	2	2	0	2	2
% Vehicles > 55 MPH	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1

Northbound & Southbound

	11/09/2024 Wednesday	12/09/2024 Thursday	13/09/2024 Friday	14/09/2024 Saturday	15/09/2024 Sunday	16/09/2024 Monday	17/09/2024 Tuesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	7987	7863	7786	6078	5067	7127	7770	7707	7097
Mean Speed	32.8	32.8	33.3	33.2	33.4	33.2	33.0	33.0	33.1
85%ile Speed	36.7	36.7	37.1	37.3	37.3	37.0	36.8	36.9	37.0
No. Vehicles > 40 MPH Limit	318	304	356	304	287	323	301	320	313
% Vehicles > 40 MPH Limit	4.0	3.9	4.6	5.0	5.7	4.5	3.9	4.2	4.5
No. Vehicles > 55 MPH	2	2	0	2	3	3	0	2	2
% Vehicles > 55 MPH	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

Shinfield - ATC 2 - Hyde End Road

Produced by Streetwise Services Ltd.



Channel - Northbound

Vehicle Flow

Hour	Min	11/09/2024 Wednesday	12/09/2024 Thursday	13/09/2024 Friday	14/09/2024 Saturday	15/09/2024 Sunday	16/09/2024 Monday	17/09/2024 Tuesday	5 Day Ave	7 Day Ave
0	0	7	6	9	18	21	8	6	7	11
1	0	1	4	1	11	13	0	4	3	6
2	0	5	4	4	3	2	2	1	3	3
3	0	3	1	2	1	3	1	2	2	2
4	0	5	6	6	2	2	2	4	5	4
5	0	18	17	9	7	5	16	15	15	12
6	0	72	76	85	21	18	60	74	73	58
7	0	426	396	315	61	42	360	399	379	286
8	0	500	442	416	198	107	415	548	464	375
9	0	254	244	228	206	163	214	267	241	225
10	0	182	202	206	219	236	175	184	190	201
11	0	200	216	210	263	272	207	210	209	225
12	0	222	192	227	261	307	228	192	212	233
13	0	205	193	222	225	245	193	195	202	211
14	0	226	252	259	272	200	210	231	236	236
15	0	333	339	355	205	178	275	288	318	282
16	0	300	312	328	185	201	319	338	319	283
17	0	422	379	310	209	171	346	381	368	317
18	0	253	262	254	195	143	217	309	259	233
19	0	168	206	190	156	104	161	173	180	165
20	0	104	88	117	95	64	72	82	93	89
21	0	59	56	75	62	38	37	44	54	53
22	0	36	44	32	57	29	26	28	33	36
23	0	15	13	21	37	10	13	17	16	18

Hour	7-19	3523	3429	3330	2499	2265	3159	3542	3397	3107
Ranges:	6-22	3926	3855	3797	2833	2489	3489	3915	3796	3472
	6-24	3977	3912	3850	2927	2528	3528	3960	3845	3526
	0-24	4016	3950	3881	2969	2574	3557	3992	3879	3563

Channel - Southbound

Vehicle Flow

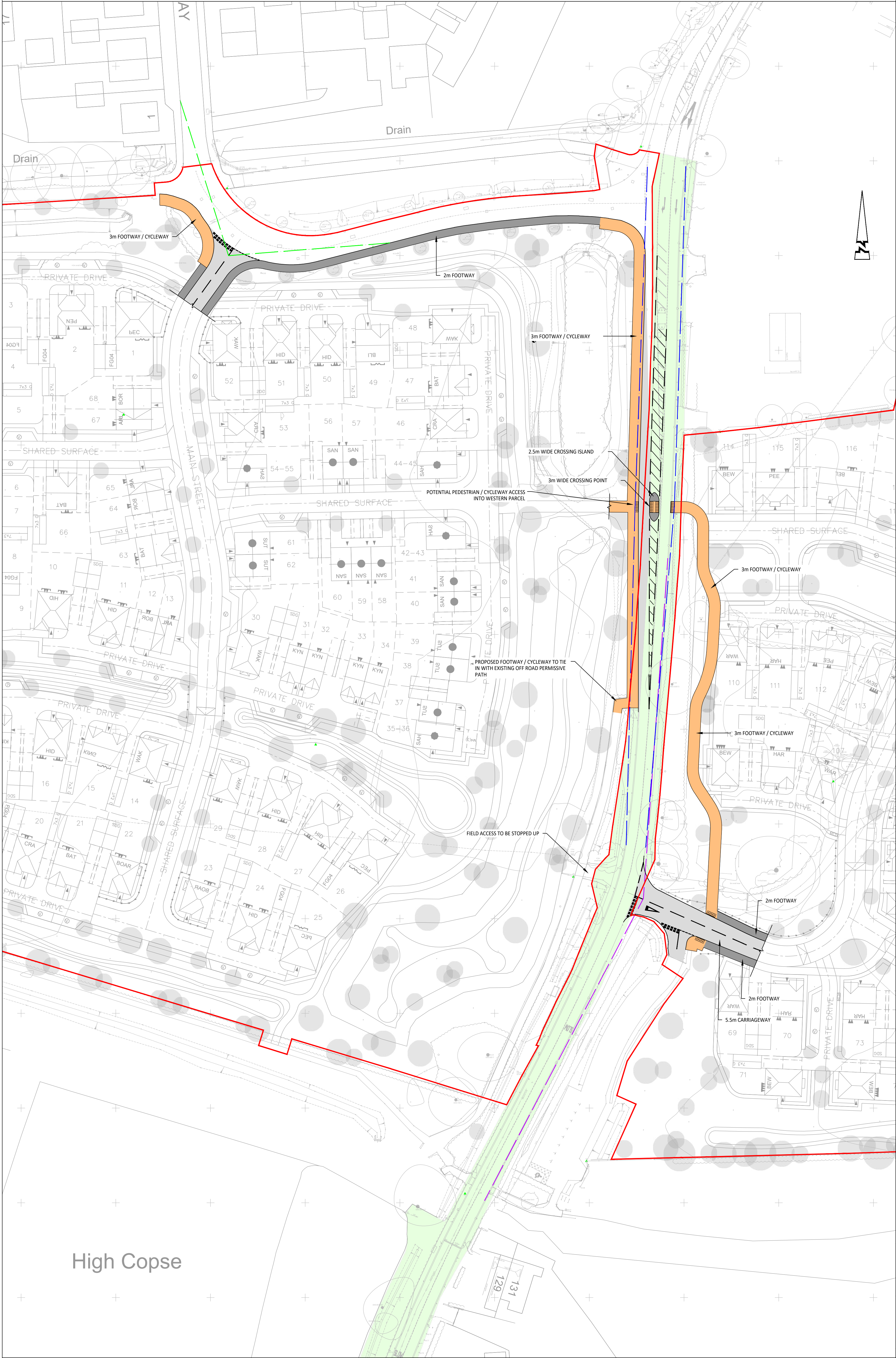
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0	0	5	5	8	15	21	5	7	6	9
1	0	2	8	1	6	12	2	4	3	5
2	0	4	4	2	4	5	2	2	3	3
3	0	1	3	2	4	2	2	3	2	2
4	0	7	4	4	3	3	3	2	4	4
5	0	11	11	10	6	5	10	8	10	9
6	0	50	56	50	10	16	43	52	50	40
7	0	211	199	177	48	42	194	195	195	152
8	0	335	315	291	120	77	295	315	310	250
9	0	257	288	284	187	110	250	253	266	233
10	0	162	194	215	290	202	175	192	188	204
11	0	241	220	208	275	227	197	174	208	220
12	0	223	210	253	258	263	222	200	222	233
13	0	226	185	251	264	251	207	212	216	228
14	0	178	205	239	252	177	198	220	208	210
15	0	359	379	370	238	210	336	336	356	318
16	0	415	368	375	239	215	381	399	388	342
17	0	452	409	367	240	198	330	399	391	342
18	0	305	302	264	212	155	270	289	286	257
19	0	195	244	221	141	119	177	234	214	190
20	0	155	123	127	111	85	125	102	126	118
21	0	95	87	85	84	49	93	88	90	83
22	0	55	68	59	66	30	34	65	56	54
23	0	27	26	42	36	19	19	27	28	28

Hour	7-19	3559	3518	3515	2764	2246	3232	3418	3448	3179
Ranges:	6-22	3914	3852	3836	3035	2426	3527	3725	3771	3474
	6-24	3941	3878	3878	3071	2445	3546	3752	3799	3502
	0-24	3971	3913	3905	3109	2493	3570	3778	3827	3534



Appendix F - Access Arrangements

- KEY
- SITE BOUNDARY
 - HIGHWAY BOUNDARY
 - PROPOSED CARRIAGEWAY
 - PROPOSED 3m SHARED FOOTWAY / CYCLEWAY
 - PROPOSED 2m FOOTWAY
 - 2.4m X 90m VISIBILITY SPLAY
 - 2.4m X 43m VISIBILITY SPLAY
 - 1m X 90m PEDESTRIAN VISIBILITY SPLAY



P3	04.25	MINOR AMENDMENTS TO MATCH LAYOUT	TDM	PJ
P2	01.25	MINOR AMENDMENTS TO MATCH LAYOUT	TDM	PJ
P1	08.24	FIRST ISSUE	TDM	PJ
Rev	Date	Description	Drawn	Checked



Client	BLOOR HOMES			
Project	HYDE END ROAD, SHINFELD			
Title	PROPOSED ACCESS ARRANGEMENTS			
Status	FOR INFORMATION			
Scale	1:500 @ A1	Date	AUG 2024	Drawn
Drawing No	HD068-003	Revision	P3	Checked
			TDM	AG

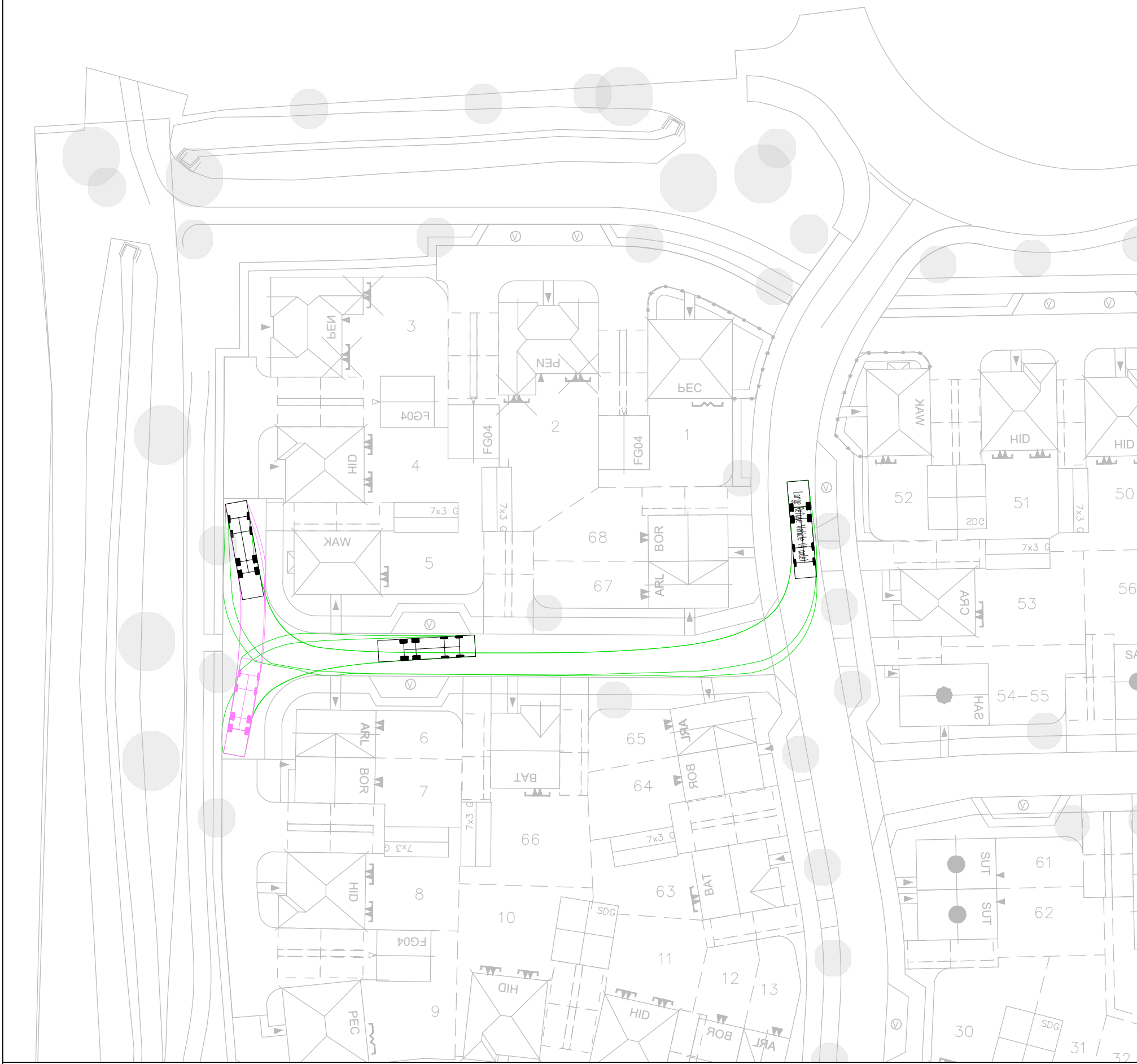


Appendix G - Swept Path Analysis : Proposed Accesses

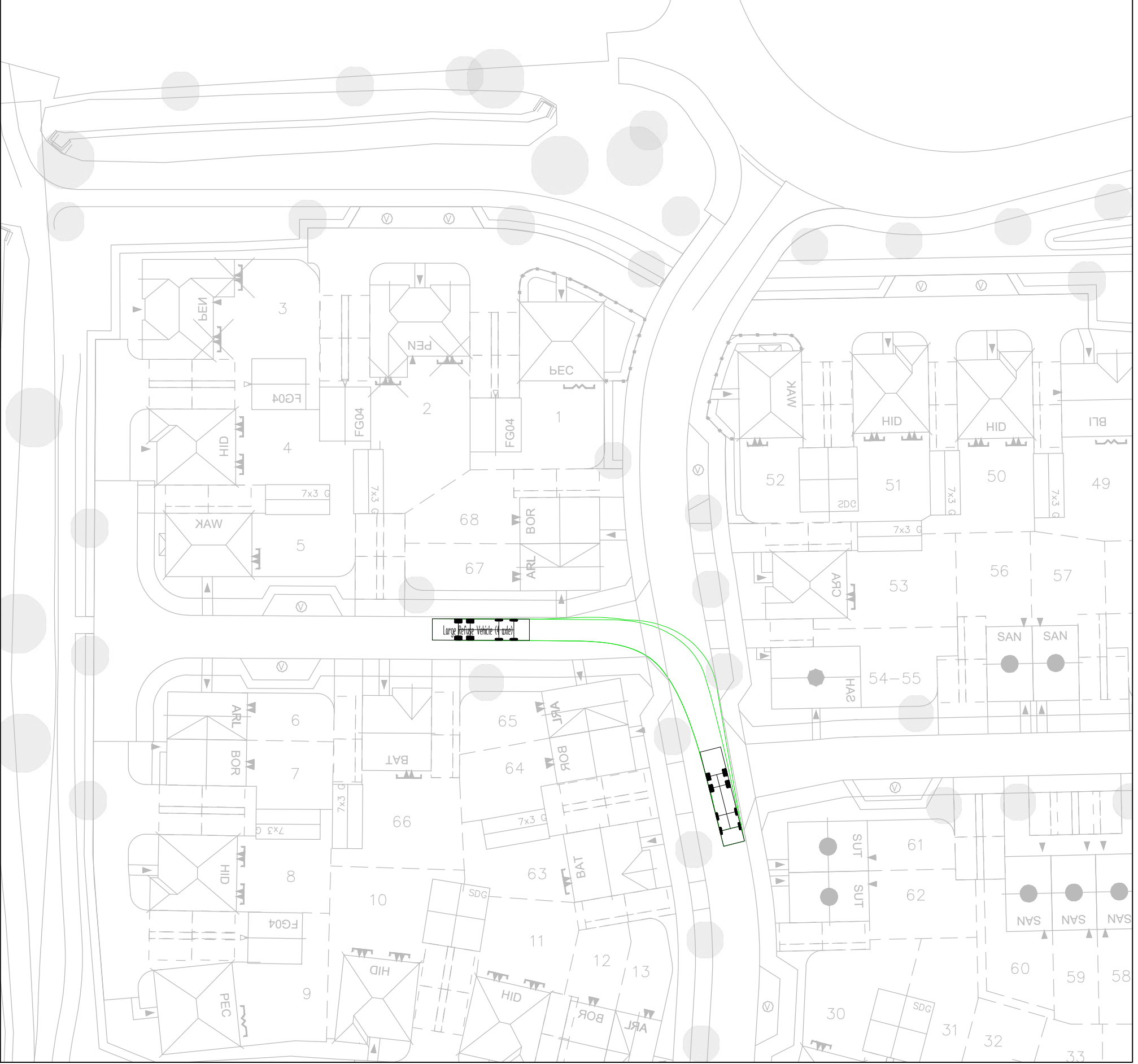


Appendix H - Swept Path Analysis : Internal Streets

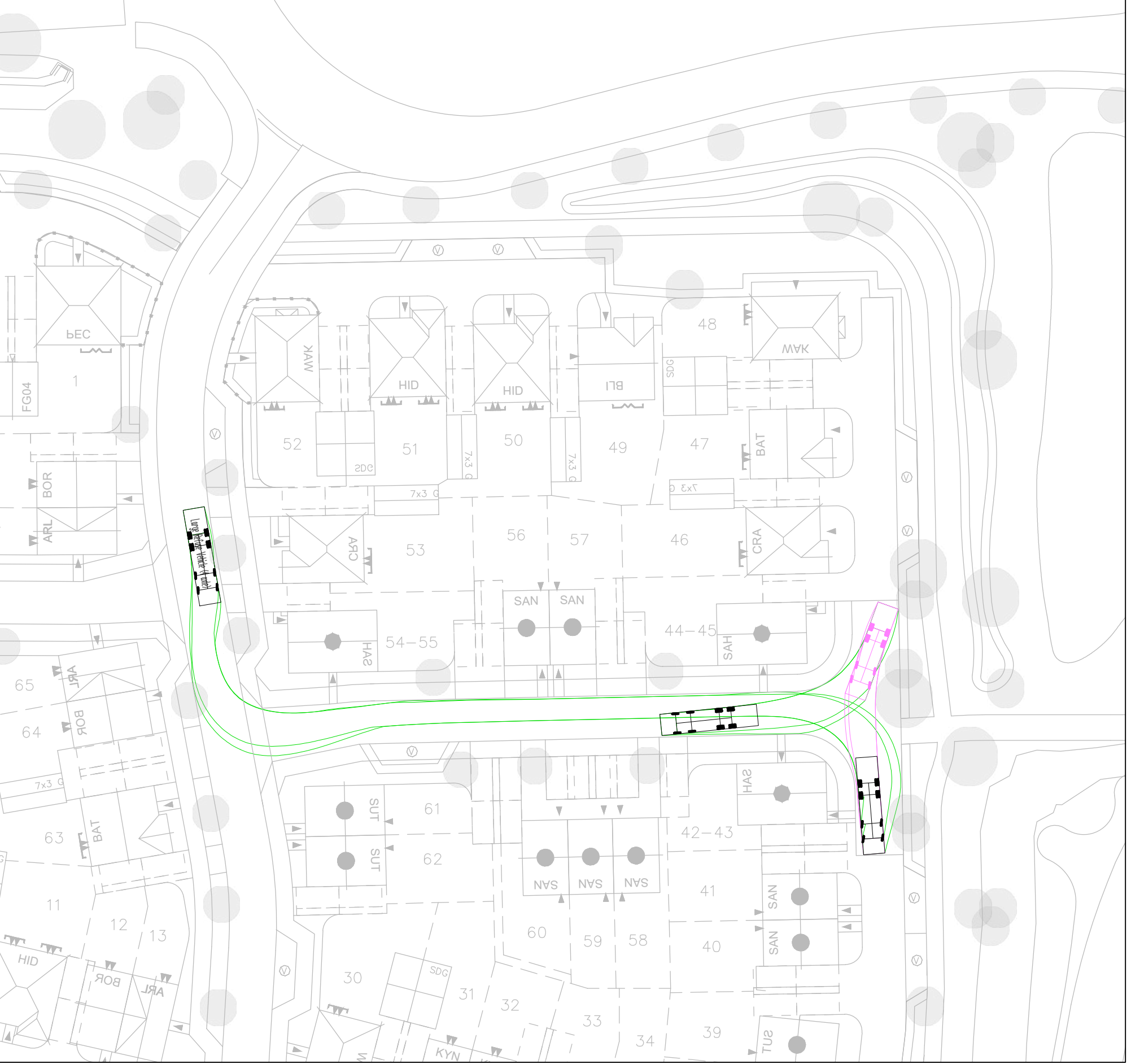
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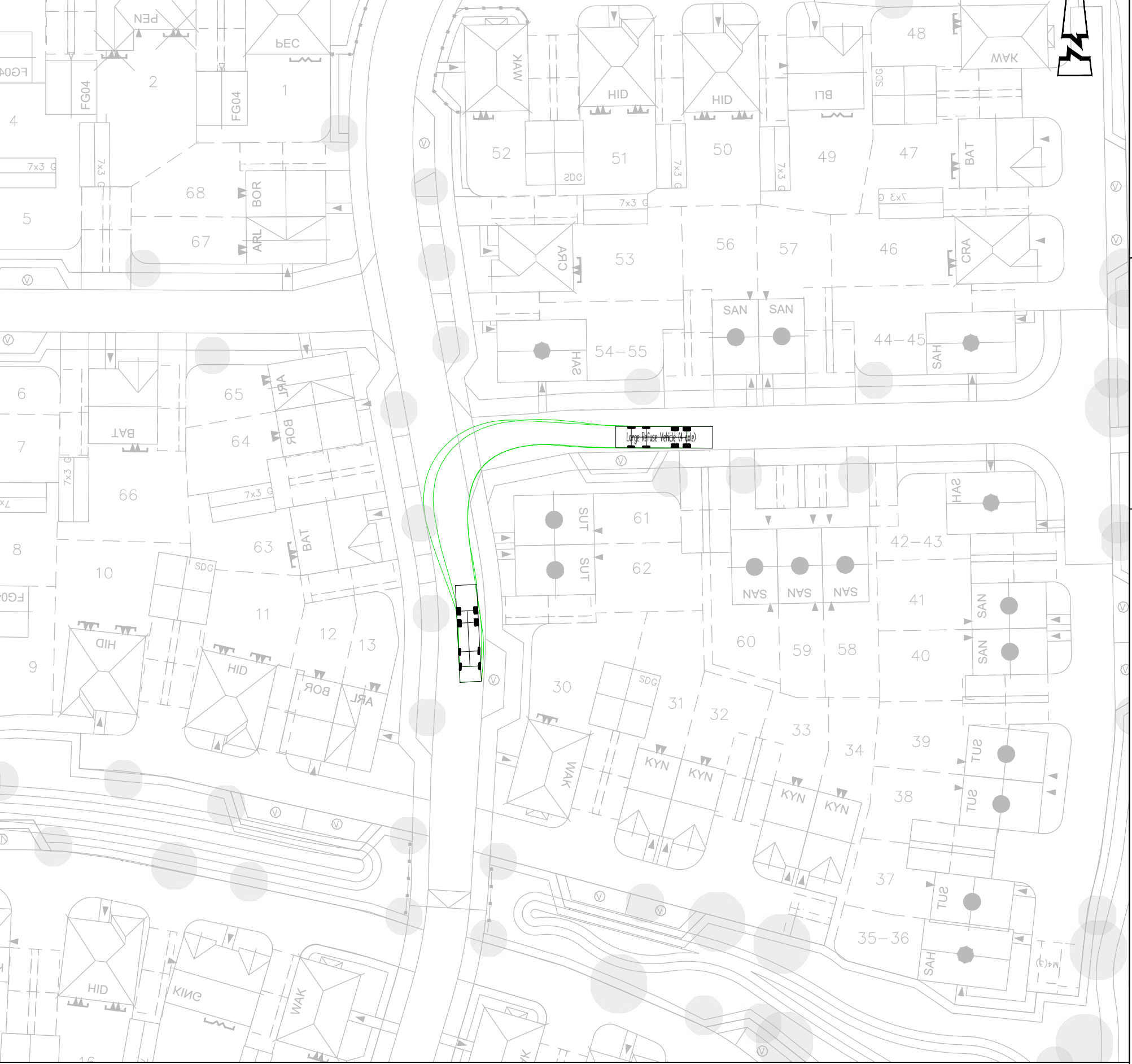
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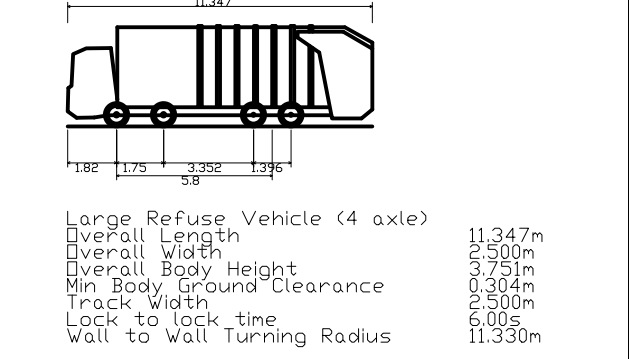
LOCATION 2.



LOCATION 2.



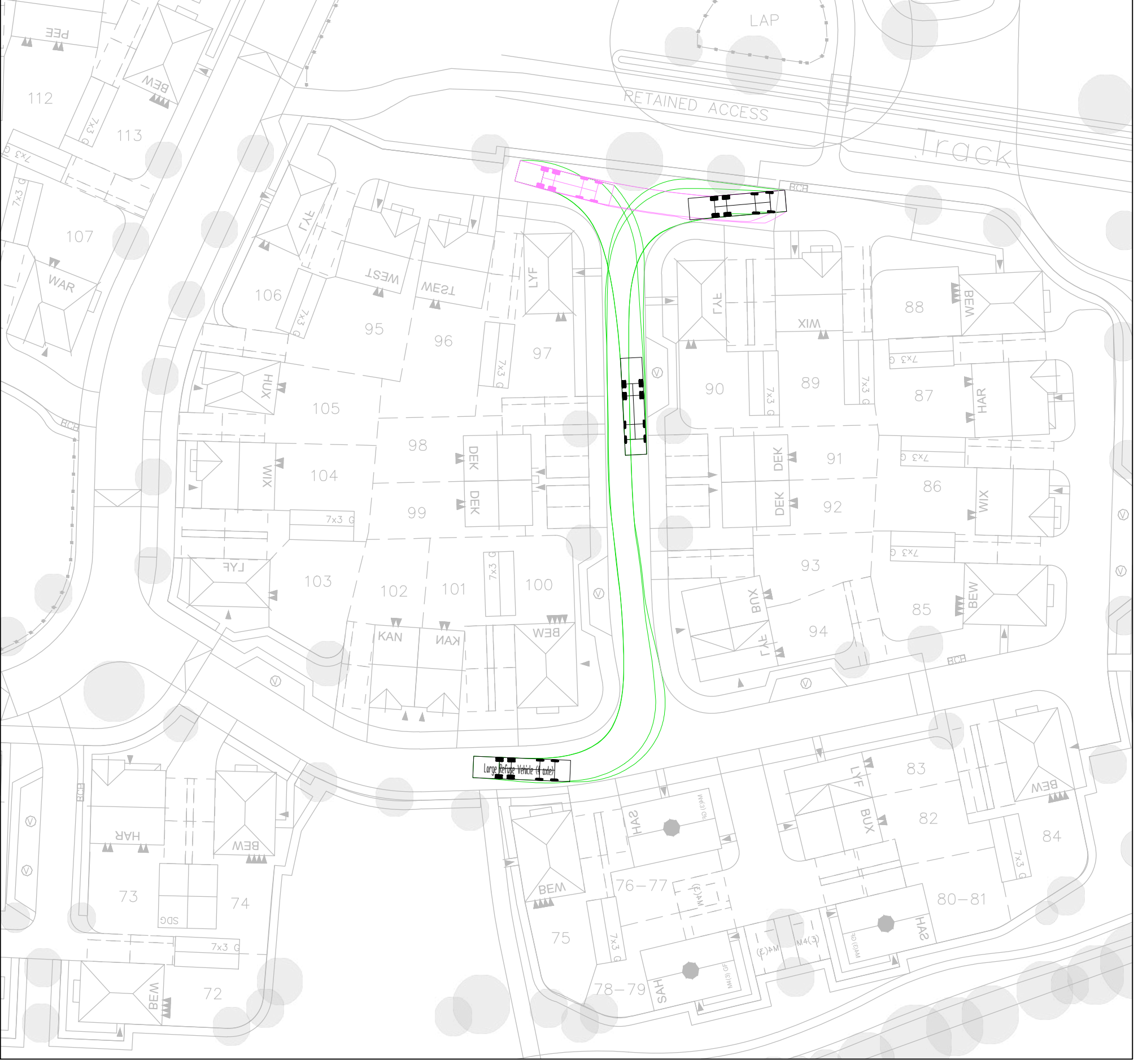
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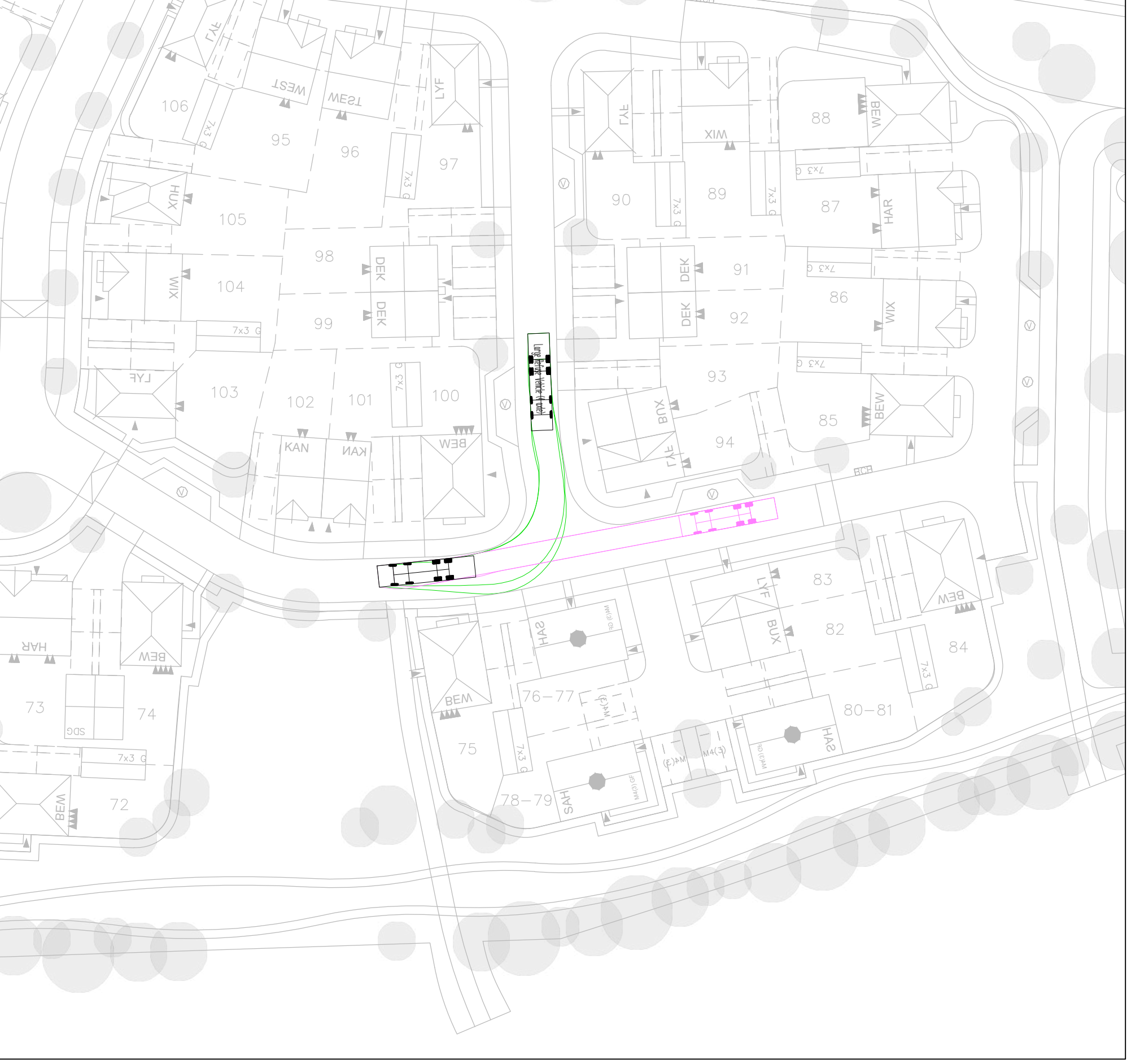
LOCATION 3.



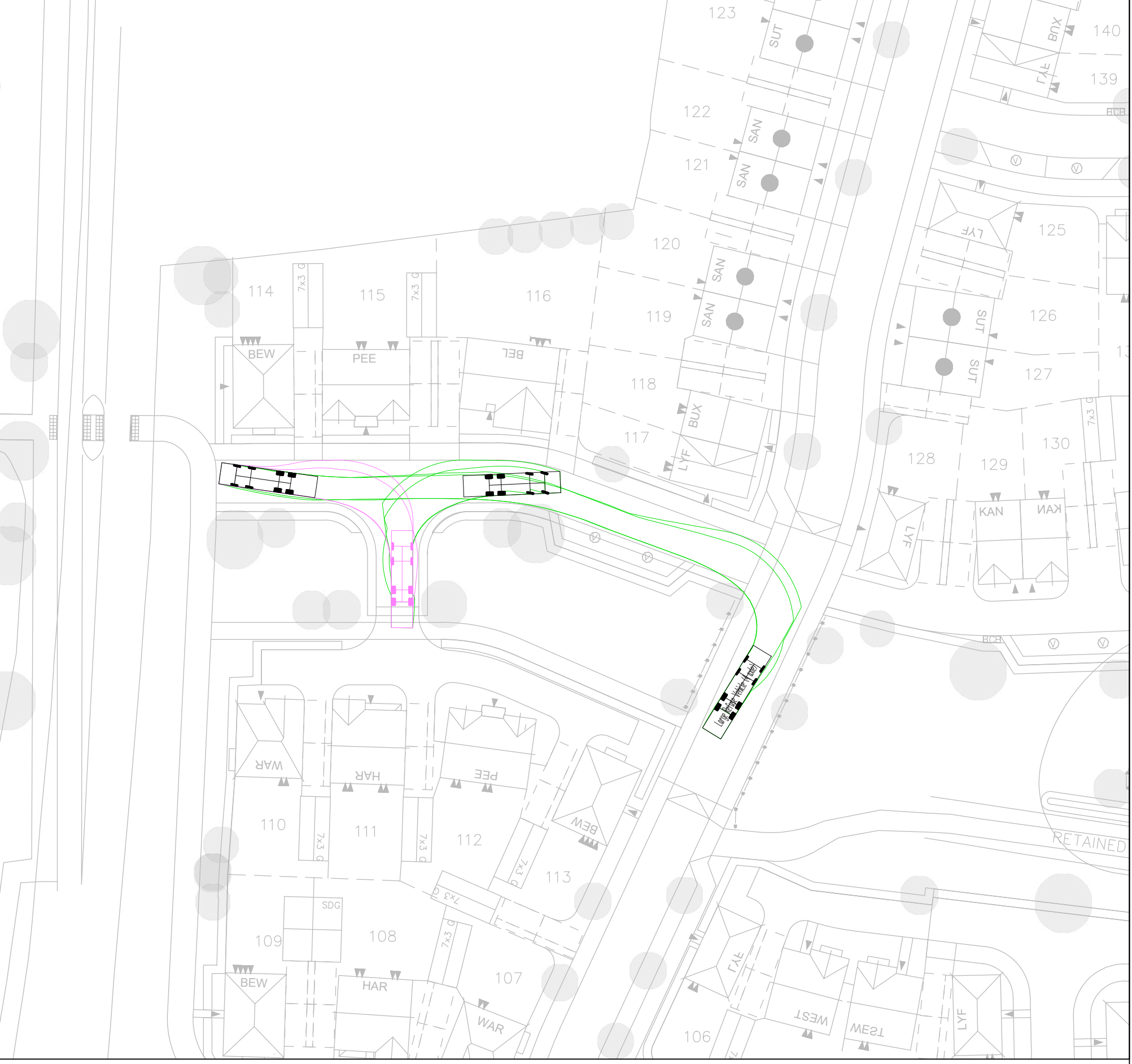
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LOCATION 4.



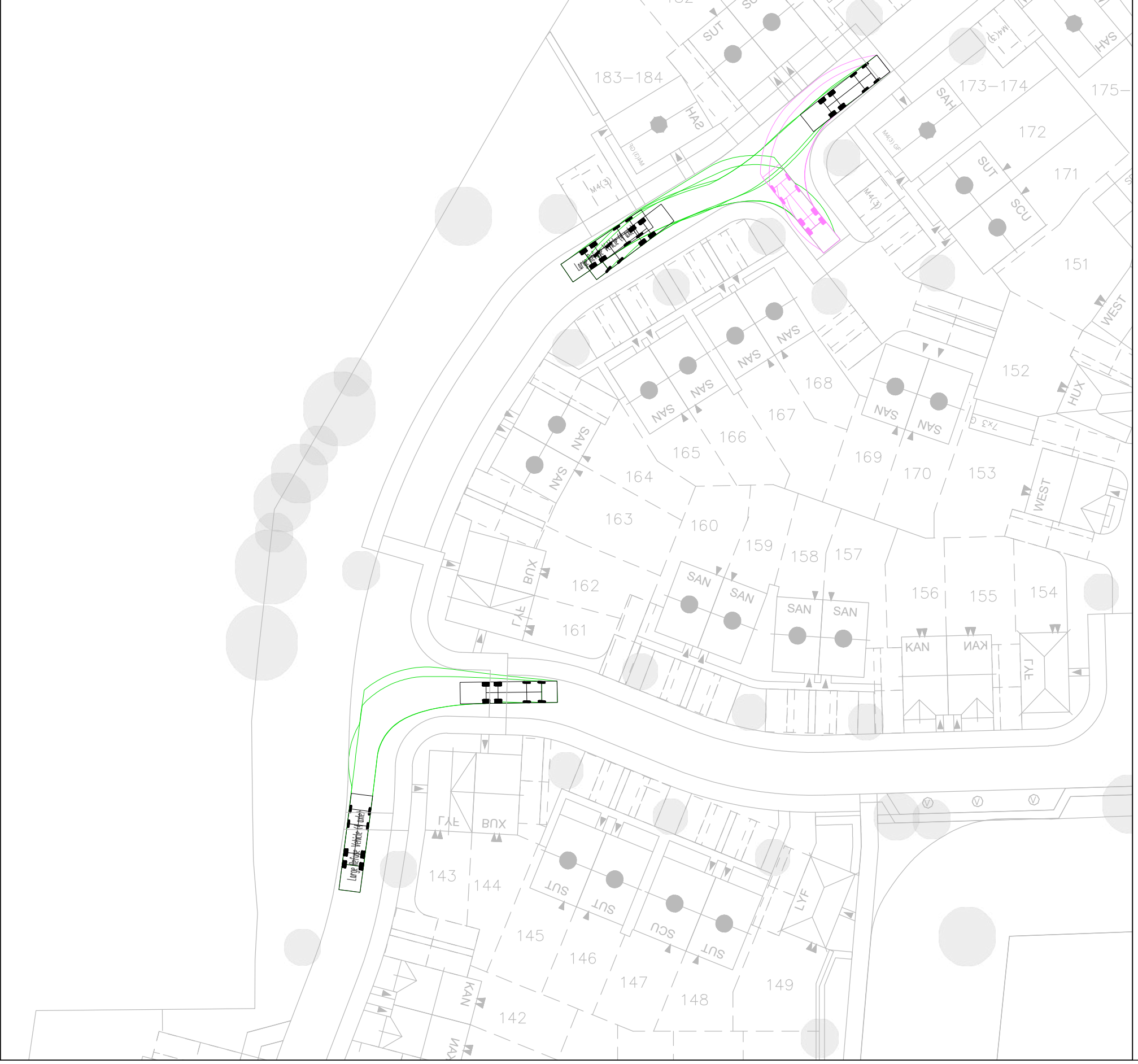
LOCATION 5.



LOCATION 5.



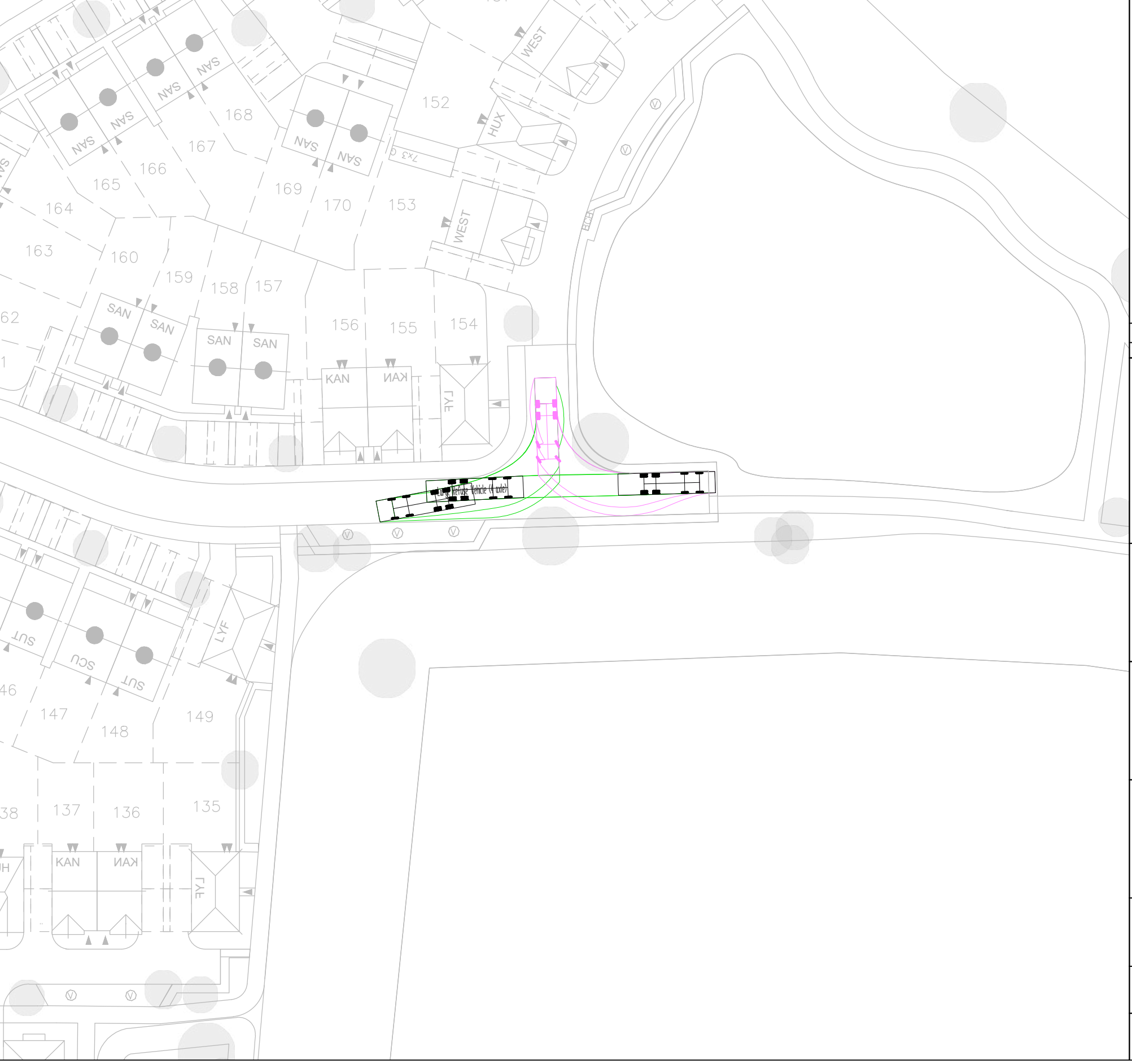
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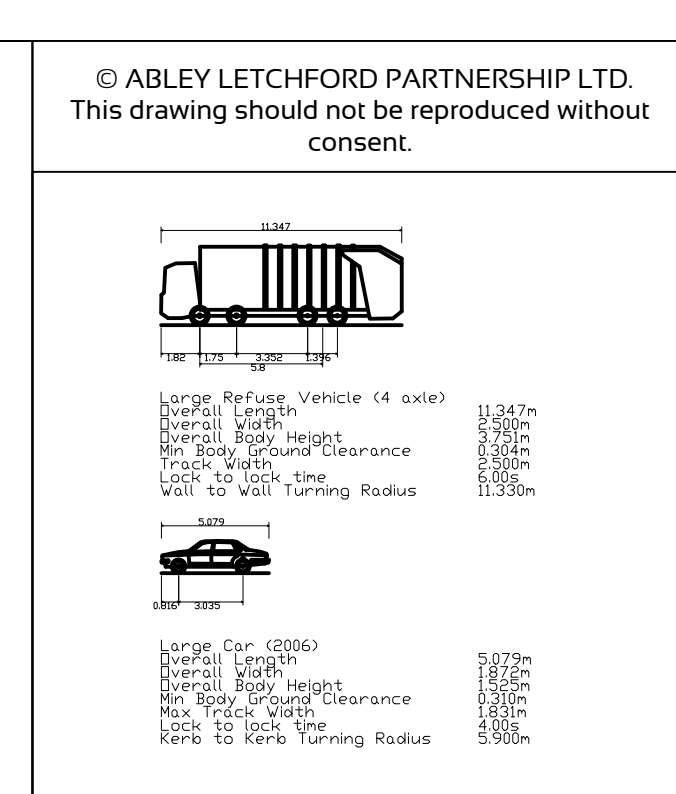


LOCATION 6.



LOCATION 7.





KEY

— INTER-VISIBILITY SPY

● BIN COLLECTION POINT

A	04.25	FIRST ISSUE	TDM	AG
---	-------	-------------	-----	----



Client

BLOOR HOMES

Project

HYDE END ROAD, SHINFIELD

Tide
SWEPT PATH ANALYSIS
TWO WAY WORKING
REFUSE AND CAR

Status FOR PLANNING			
Scale 1:500 @ A0	Date APRIL 2025	Drawn TDM	Checked AG
Drawing No HD068 - 013			Revision P1



Appendix I - Parking Appraisal

Land East and West of Hyde End Road, Shinfield

Residential Development

Schedule of Vehicular Parking

03/04/2025

Plot No	Type	Beds	Allocated Spaces	Allocated Garage	Total Spaces (Including Garages)	WBC Extra Demand	Visitor Parking
1	HOUSE	4	4	2	6	0	0.2
2	HOUSE	5	4	2	6	0	0.2
3	HOUSE	5	4	2	6	0	0.2
4	HOUSE	4	2	1	3	0	0.2
5	HOUSE	4	2	1	3	0	0.2
6	HOUSE	3	2	0	2	0.1	0.2
7	HOUSE	3	2	1	3	0	0.2
8	HOUSE	4	2	1	3	0	0.2
9	HOUSE	4	2	1	3	0	0.2
10	HOUSE	4	2	1	3	0	0.2
11	HOUSE	4	2	1	3	0	0.2
12	HOUSE	3	2	0	2	0.1	0.2
13	HOUSE	3	2	0	2	0.1	0.2
14	HOUSE	4	2	1	3	0	0.2
15	HOUSE	4	2	1	3	0	0.2
16	HOUSE	4	2	1	3	0	0.2
17	HOUSE	4	2	1	3	0	0.2
18	HOUSE	4	2	1	3	0	0.2
19	HOUSE	4	4	2	6	0	0.2
20	HOUSE	4	2	1	3	0	0.2
21	HOUSE	4	2	1	3	0	0.2
22	HOUSE	4	2	1	3	0	0.2
23	HOUSE	4	2	1	3	0	0.2
24	HOUSE	4	2	1	3	0	0.2
25	HOUSE	4	4	2	6	0	0.2
26	HOUSE	4	4	2	6	0	0.2
27	HOUSE	4	2	1	3	0	0.2
28	HOUSE	4	2	1	3	0	0.2
29	HOUSE	4	2	1	3	0	0.2
30	HOUSE	4	2	1	3	0	0.2
31	HOUSE	3	2	1	3	0	0.2
32	HOUSE	3	2	0	2	0.1	0.2
33	HOUSE	3	2	0	2	0.1	0.2
34	HOUSE	3	2	0	2	0.1	0.2
35	FLAT	1	1	0	1	0.1	0.2
36	FLAT	1	1	0	1	0.1	0.2
37	HOUSE	3	2	0	2	0.1	0.2
38	HOUSE	3	2	0	2	0.1	0.2
39	HOUSE	3	2	0	2	0.1	0.2
40	HOUSE	2	2	0	2	0	0.2
41	HOUSE	2	2	0	2	0	0.2
42	FLAT	1	2	0	2	0	0.2
43	FLAT	1	1	0	1	0.1	0.2
44	FLAT	1	1	0	1	0.1	0.2
45	FLAT	1	1	0	1	0.1	0.2
46	HOUSE	4	2	1	3	0	0.2
47	HOUSE	4	2	1	3	0	0.2
48	HOUSE	4	2	1	3	0	0.2
49	HOUSE	4	2	1	3	0	0.2
50	HOUSE	4	2	1	3	0	0.2
51	HOUSE	4	2	1	3	0	0.2
52	HOUSE	4	2	1	3	0	0.2
53	HOUSE	4	2	1	3	0	0.2

Land East and West of Hyde End Road, Shinfield

Residential Development

Schedule of Vehicular Parking

03/04/2025

Plot No	Type	Beds	Allocated Spaces	Allocated Garage	Total Spaces (Including Garages)	WBC Extra Demand	Visitor Parking
54	FLAT	1	1	0	1	0.1	0.2
55	FLAT	1	1	0	1	0.1	0.2
56	HOUSE	2	2	0	2	0	0.2
57	HOUSE	2	2	0	2	0	0.2
58	HOUSE	2	2	0	2	0	0.2
59	HOUSE	2	2	0	2	0	0.2
60	HOUSE	2	2	0	2	0	0.2
61	HOUSE	3	2	0	2	0.1	0.2
62	HOUSE	3	2	0	2	0.1	0.2
63	HOUSE	4	2	1	3	0	0.2
64	HOUSE	3	2	0	2	0.1	0.2
65	HOUSE	3	2	0	2	0.1	0.2
66	HOUSE	4	2	1	3	0	0.2
67	HOUSE	3	2	0	2	0.1	0.2
68	HOUSE	3	2	0	2	0.1	0.2
69	HOUSE	4	2	1	3	0	0.2
70	HOUSE	4	2	1	3	0	0.2
71	HOUSE	4	2	1	3	0	0.2
72	HOUSE	4	2	1	3	0	0.2
73	HOUSE	4	2	1	3	0	0.2
74	HOUSE	4	2	1	3	0	0.2
75	HOUSE	4	2	1	3	0	0.2
76	FLAT	1	1	0	1	0.1	0.2
77	FLAT	1	1	0	1	0.1	0.2
78	FLAT	1	1	0	1	0.1	0.2
79	FLAT	1	1	0	1	0.1	0.2
80	FLAT	1	1	0	1	0.1	0.2
81	FLAT	1	2	0	2	0	0.2
82	HOUSE	3	2	0	2	0.1	0.2
83	HOUSE	3	2	0	2	0.1	0.2
84	HOUSE	4	2	1	3	0	0.2
85	HOUSE	4	2	1	3	0	0.2
86	HOUSE	3	2	1	3	0	0.2
87	HOUSE	4	2	1	3	0	0.2
88	HOUSE	4	2	1	3	0	0.2
89	HOUSE	3	2	1	3	0	0.2
90	HOUSE	3	2	0	2	0.1	0.2
91	HOUSE	2	2	0	2	0	0.2
92	HOUSE	2	2	0	2	0	0.2
93	HOUSE	3	2	0	2	0.1	0.2
94	HOUSE	3	2	0	2	0.1	0.2
95	HOUSE	4	2	1	3	0	0.2
96	HOUSE	4	2	1	3	0	0.2
97	HOUSE	3	2	0	2	0.1	0.2
98	HOUSE	2	2	0	2	0	0.2
99	HOUSE	2	2	0	2	0	0.2
100	HOUSE	4	2	1	3	0	0.2
101	HOUSE	3	2	0	2	0.1	0.2
102	HOUSE	3	2	0	2	0.1	0.2
103	HOUSE	3	2	0	2	0.1	0.2
104	HOUSE	3	2	1	3	0	0.2
105	HOUSE	3	2	0	2	0.1	0.2
106	HOUSE	3	2	0	2	0.1	0.2

Land East and West of Hyde End Road, Shinfield

Residential Development

Schedule of Vehicular Parking

03/04/2025

Plot No	Type	Beds	Allocated Spaces	Allocated Garage	Total Spaces (Including Garages)	WBC Extra Demand	Visitor Parking
107	HOUSE	4	2	1	3	0	0.2
108	HOUSE	4	2	1	3	0	0.2
109	HOUSE	4	2	1	3	0	0.2
110	HOUSE	4	2	1	3	0	0.2
111	HOUSE	4	2	1	3	0	0.2
112	HOUSE	4	2	1	3	0	0.2
113	HOUSE	4	2	1	3	0	0.2
114	HOUSE	4	2	1	3	0	0.2
115	HOUSE	4	2	1	3	0	0.2
116	HOUSE	3	2	0	2	0.1	0.2
117	HOUSE	3	2	0	2	0.1	0.2
118	HOUSE	3	2	0	2	0.1	0.2
119	HOUSE	2	2	0	2	0	0.2
120	HOUSE	2	2	0	2	0	0.2
121	HOUSE	2	2	0	2	0	0.2
122	HOUSE	2	2	0	2	0	0.2
123	HOUSE	3	2	0	2	0.1	0.2
124	HOUSE	4	2	0	2	0.4	0.2
125	HOUSE	3	2	0	2	0.1	0.2
126	HOUSE	3	2	0	2	0.1	0.2
127	HOUSE	3	2	0	2	0.1	0.2
128	HOUSE	3	2	0	2	0.1	0.2
129	HOUSE	3	2	0	2	0.1	0.2
130	HOUSE	3	2	0	2	0.1	0.2
131	HOUSE	3	2	1	3	0	0.2
132	HOUSE	4	2	1	3	0	0.2
133	HOUSE	4	2	1	3	0	0.2
134	HOUSE	3	2	1	3	0	0.2
135	HOUSE	3	2	0	2	0.1	0.2
136	HOUSE	3	2	0	2	0.1	0.2
137	HOUSE	3	2	0	2	0.1	0.2
138	HOUSE	3	2	0	2	0.1	0.2
139	HOUSE	3	2	0	2	0.1	0.2
140	HOUSE	3	2	0	2	0.1	0.2
141	HOUSE	3	2	0	2	0.1	0.2
142	HOUSE	3	2	0	2	0.1	0.2
143	HOUSE	3	2	0	2	0.1	0.2
144	HOUSE	3	2	0	2	0.1	0.2
145	HOUSE	3	2	0	2	0.1	0.2
146	HOUSE	3	2	0	2	0.1	0.2
147	HOUSE	4	2	0	2	0.4	0.2
148	HOUSE	3	2	0	2	0.1	0.2
149	HOUSE	3	2	0	2	0.1	0.2
150	HOUSE	4	2	1	3	0	0.2
151	HOUSE	4	2	1	3	0	0.2
152	HOUSE	3	2	0	2	0.1	0.2
153	HOUSE	4	2	1	3	0	0.2
154	HOUSE	3	2	0	2	0.1	0.2
155	HOUSE	3	2	0	2	0.1	0.2
156	HOUSE	3	2	0	2	0.1	0.2
157	HOUSE	2	2	0	2	0	0.2
158	HOUSE	2	2	0	2	0	0.2
159	HOUSE	2	2	0	2	0	0.2

Land East and West of Hyde End Road, Shinfield

Residential Development

Schedule of Vehicular Parking

03/04/2025

Plot No	Type	Beds	Allocated Spaces	Allocated Garage
160	HOUSE	2	2	0
161	HOUSE	3	2	0
162	HOUSE	3	2	0
163	HOUSE	2	2	0
164	HOUSE	2	2	0
165	HOUSE	2	2	0
166	HOUSE	2	2	0
167	HOUSE	2	2	0
168	HOUSE	2	2	0
169	HOUSE	2	2	0
170	HOUSE	2	2	0
171	HOUSE	4	2	0
172	HOUSE	3	2	0
173	FLAT	1	1	0
174	FLAT	1	1	0
175	FLAT	1	1	0
176	FLAT	1	1	0
177	FLAT	1	1	0
178	FLAT	1	1	0
179	HOUSE	3	2	0
180	HOUSE	3	2	0
181	HOUSE	3	2	0
182	HOUSE	3	2	0
183	FLAT	1	1	0
184	FLAT	1	1	0
184	TOTALS		360	77
			437	

Total Spaces (Including Garages)	WBC Extra Demand	Visitor Parking
2	0	0.2
2	0.1	0.2
2	0.1	0.2
2	0	0.2
2	0	0.2
2	0	0.2
2	0	0.2
2	0	0.2
2	0	0.2
2	0	0.2
2	0	0.2
2	0.4	0.2
2	0.1	0.2
1	0.1	0.2
1	0.1	0.2
1	0.1	0.2
1	0.1	0.2
1	0.1	0.2
1	0.1	0.2
2	0.1	0.2
2	0.1	0.2
2	0.1	0.2
2	0.1	0.2
1	0.1	0.2
1	0.1	0.2
437	9.3	36.8
46.1		



Appendix J - Off Site Mitigation Drawings

The Context Plan map shows the site location within its surrounding environment. Key features include:

- Shinfield Infant School** and **Shinfield St Mary's C of E Junior School** located to the north of the site.
- Recreation Ground** located to the east of the site.
- Hyde End Road** running diagonally through the site.
- High Copse** located to the south of the site.
- Tanner's Copse** located within the site area.
- Site Boundary** indicated by a dashed magenta line.
- Site Access** indicated by blue arrows pointing into the site from Hyde End Road.
- Site Features** indicated by orange arrows pointing to specific areas within the site.

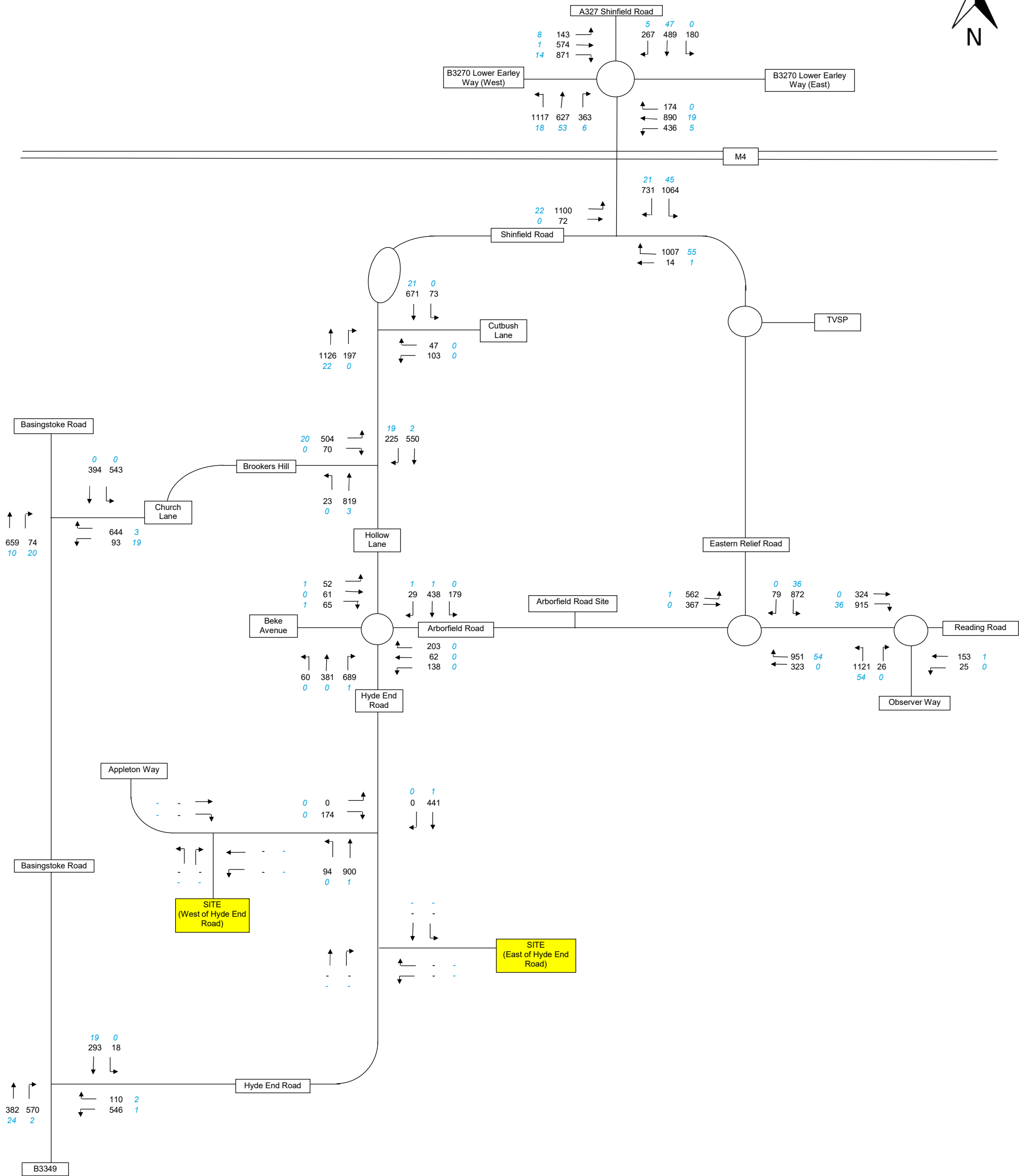
Key

-  Proposed Development
-  Proposed Pedestrian Access
-  Proposed Vehicular Access
-  Existing Pedestrian Link
-  Existing Pedestrian Path
-  Proposed Pedestrian Link
-  Existing Footway
-  Verge
-  Proposed Footway

P1		10/24		FIRST ISSUE		TDM		PJ	
Rev		Date		Description		Drawn		Checked	
 ABLE LETCHFORD PARTNERSHIP <i>Consulting Engineers</i>									
3 Tealgate, Charnham Park Hungerford, Berkshire RG17 0YT www.alpce.co.uk Tel: 01488 684390									
Client									
BLOOR HOMES									
Project									
LAND EAST AND WEST OF HYDE END ROAD SHINFIELD									
Title									
PROPOSED OFF-SITE PEDESTRIAN IMPROVEMENT ROUTE TO SCHOOL									
Status									
FOR INFORMATION									
Scale		Date		Drawn		Checked			
1:250 @ A2		OCT 2024		TDM		PJ			
Drawing No							Revision		
HD068-008							P1		



Appendix K - 2032 WSTM Traffic Flow Outputs



NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No
HD068

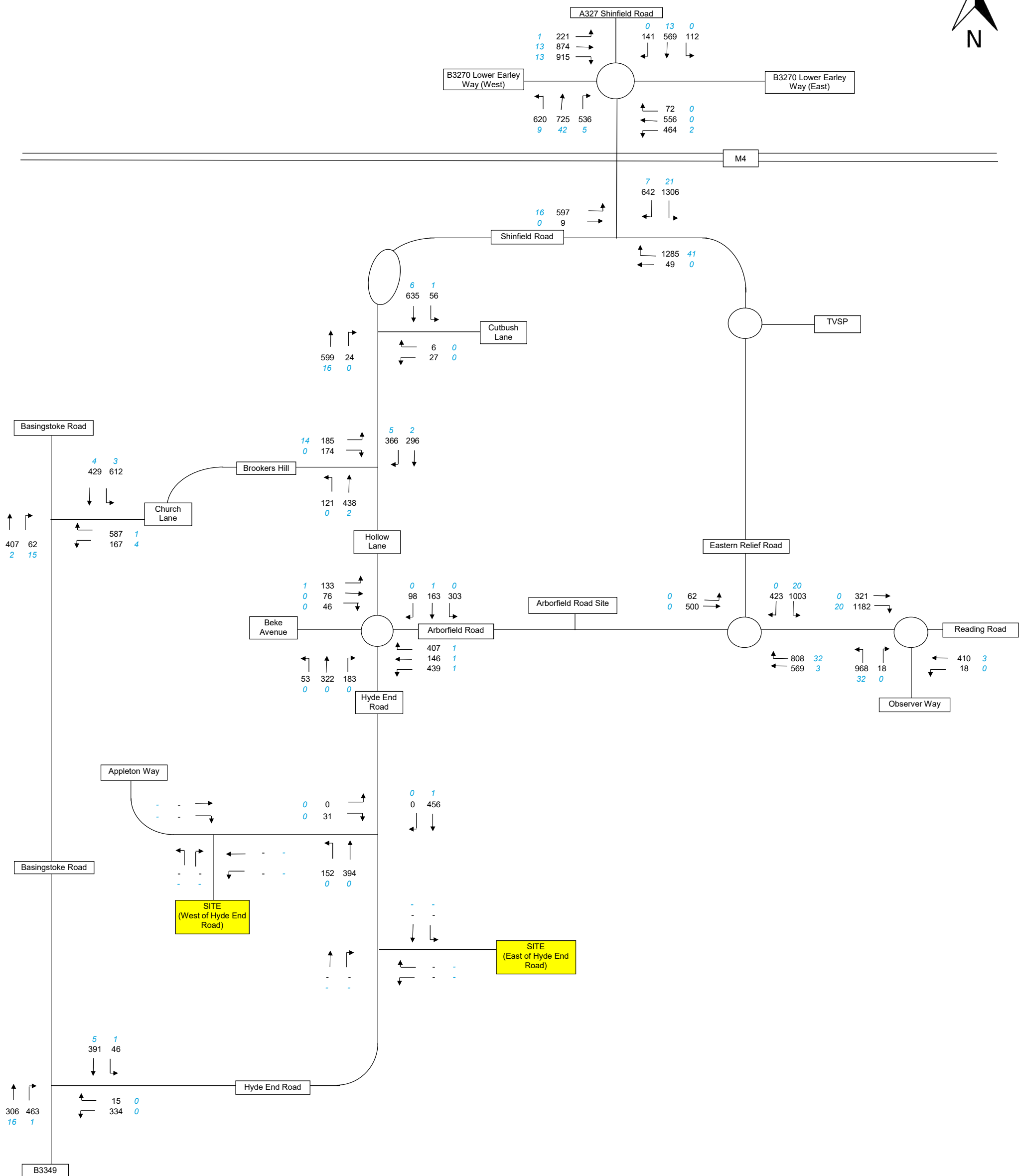
Date
April 25

Drawn
AG

Project :
Hyde End Road, Shinfield

Title :
WSTM Flows 2032 FB
AM Peak Hour

Figure No :
TM-1

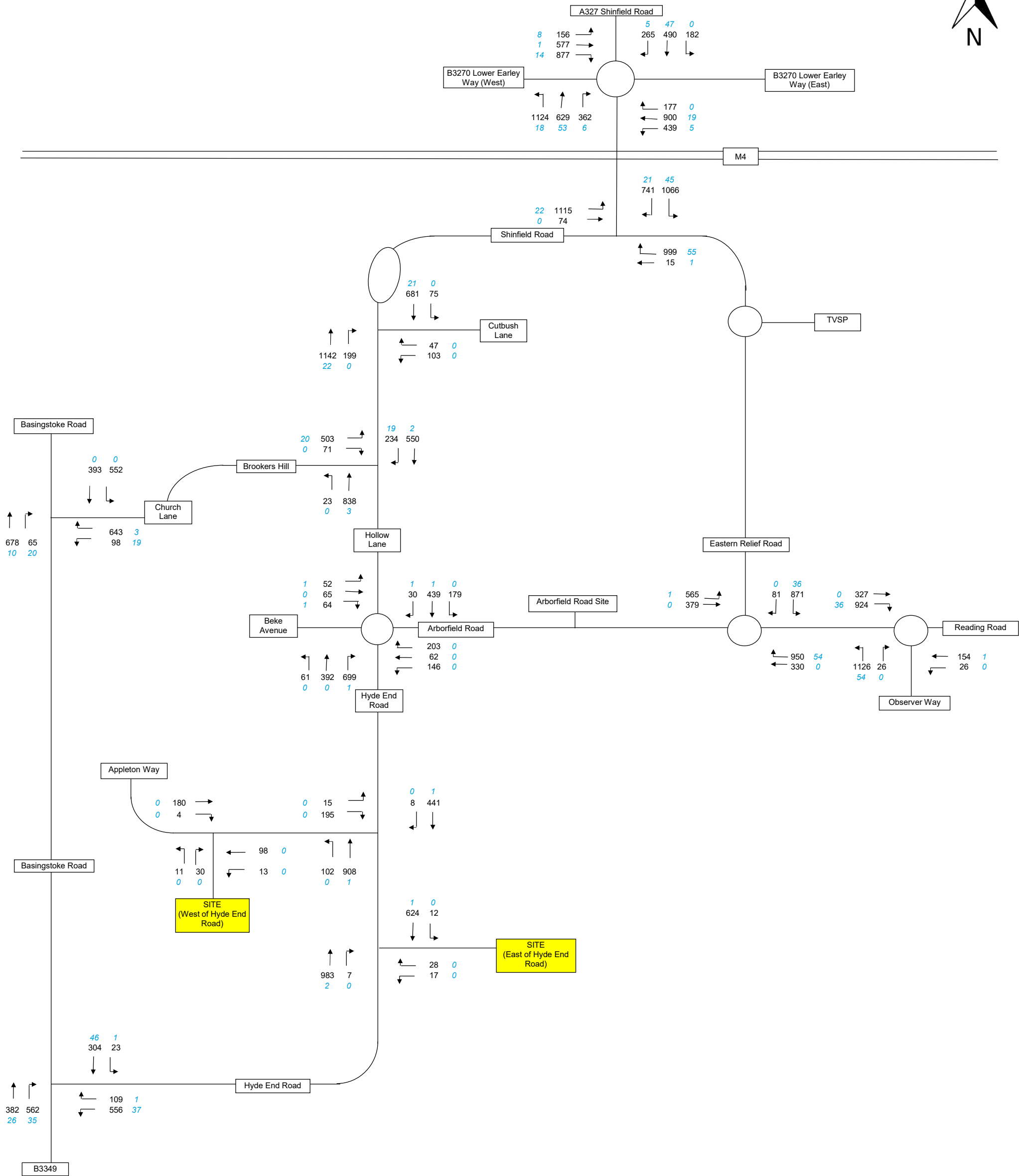


NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No HD068	Project : Hyde End Road, Shinfield
Date April 25	Title : WSTM Flows 2032 FB PM Peak Hour
Drawn AG	Figure No : TM-2



NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No
HD068

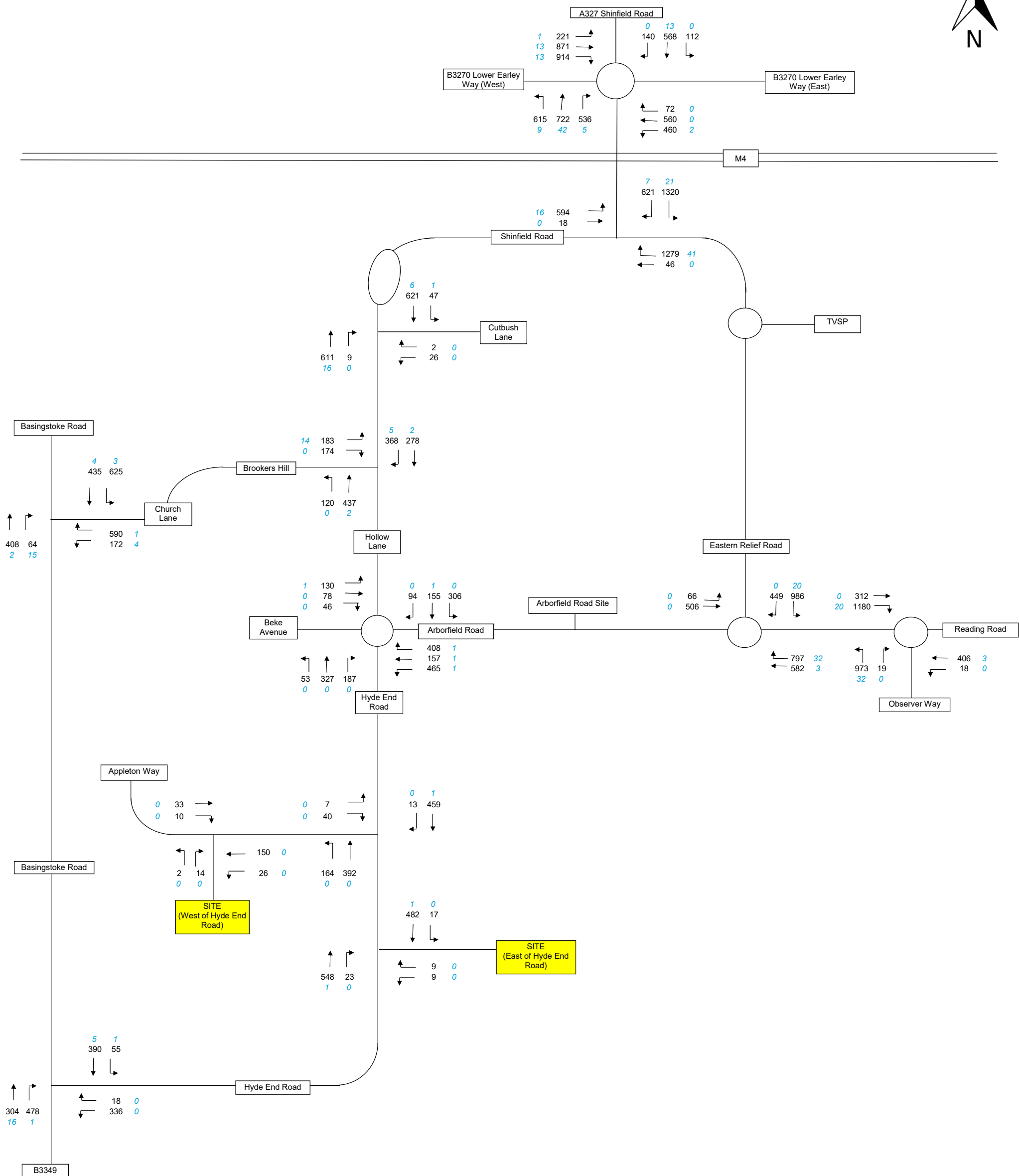
Date
April 25

Drawn
AG

Project :
Hyde End Road, Shinfield

Title :
WSTM Flows 2032 WD
AM Peak Hour

Figure No :
TM-3



NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No HD068	Project : Hyde End Road, Shinfield
Date April 25	Title : WSTM Flows 2032 WD PM Peak Hour
Drawn AG	Figure No : TM-4



Appendix L - 2032 Capacity Analysis: Appleton Access Junction

Junctions 10						
PICADY 10 - Priority Intersection Module						
Version: 10.1.0.1820						
© Copyright TRL Software Limited, 2023						
For sales and distribution information, program advice and maintenance, contact TRL Software:						
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com						
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution						

Filename: Site Access Appleton Way.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\1. Site Access Appleton Way priority junction\Capacity Assessment File

Report generation date: 09/04/2025 11:19:21

»2032 + Development, AM

»2032 + Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2032 + Development						
Stream B-C	0.0	5.00	0.02	0.0	5.01	0.00
Stream B-A	0.1	6.98	0.05	0.0	6.67	0.03
Stream C-AB	0.0	4.97	0.01	0.0	5.94	0.02

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hyde End Road
Location	Shinfield
Site number	HD068
Date	08/04/2025
Version	
Status	Proposed
Identifier	
Client	Bloor Homes
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 + Development	AM	FLAT	08:00	09:00	60	15	✓
D2	2032 + Development	PM	FLAT	17:00	18:00	60	15	✓
D3	2038 + Development	AM	FLAT	08:00	09:00	60	15	
D4	2038 + Development	PM	FLAT	17:00	18:00	60	15	

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2032 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Appleton Way (W) - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Appleton Way (W) - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.87	A

Arms

Arms

Arm	Name	Description	Arm type
A	Appleton Way (E)		Major
B	Appleton Way (W)		Minor
C	Site Access		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Site Access	6.06			110.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Appleton Way (W)	One lane plus flare	9.04	3.38	2.75	2.75	2.75	✓	1.00	150	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	608	0.110	0.279	0.175	0.398
B-C	772	0.118	0.299	-	-
C-B	638	0.246	0.246	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 + Development	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Appleton Way (E)		FLAT	✓	111	100.000
B - Appleton Way (W)		FLAT	✓	41	100.000
C - Site Access		FLAT	✓	184	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
From	A - Appleton Way (E)	0	13	98
	B - Appleton Way (W)	30	0	11
	C - Site Access	180	4	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
From	A - Appleton Way (E)	0	0	0
	B - Appleton Way (W)	0	0	0
	C - Site Access	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.02	5.00	0.0	A	11	11
B-A	0.05	6.98	0.1	A	30	30
C-AB	0.01	4.97	0.0	A	5	5
C-A					179	179
A-B					13	13
A-C					98	98

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	11	3	731	0.015	11	0.0	0.0	4.998	A
B-A	30	8	546	0.055	30	0.0	0.1	6.971	A
C-AB	5	1	729	0.007	5	0.0	0.0	4.972	A
C-A	179	45			179				
A-B	13	3			13				
A-C	98	25			98				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	11	3	731	0.015	11	0.0	0.0	4.998	A
B-A	30	8	546	0.055	30	0.1	0.1	6.976	A
C-AB	5	1	729	0.007	5	0.0	0.0	4.972	A
C-A	179	45			179				
A-B	13	3			13				
A-C	98	25			98				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	11	3	731	0.015	11	0.0	0.0	4.998	A
B-A	30	8	546	0.055	30	0.1	0.1	6.976	A
C-AB	5	1	729	0.007	5	0.0	0.0	4.972	A
C-A	179	45			179				
A-B	13	3			13				
A-C	98	25			98				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	11	3	731	0.015	11	0.0	0.0	4.998	A
B-A	30	8	546	0.055	30	0.1	0.1	6.976	A
C-AB	5	1	729	0.007	5	0.0	0.0	4.974	A
C-A	179	45			179				
A-B	13	3			13				
A-C	98	25			98				

2032 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Appleton Way (W) - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Appleton Way (W) - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2032 + Development	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Appleton Way (E)		FLAT	✓	176	100.000
B - Appleton Way (W)		FLAT	✓	16	100.000
C - Site Access		FLAT	✓	43	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
From	A - Appleton Way (E)	0	26	150
	B - Appleton Way (W)	14	0	2
	C - Site Access	33	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
	A - Appleton Way (E)	0	0	0
	B - Appleton Way (W)	0	0	0
	C - Site Access	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	5.01	0.0	A	2	2
B-A	0.03	6.67	0.0	A	14	14
C-AB	0.02	5.94	0.0	A	11	11
C-A					32	32
A-B					26	26
A-C					150	150

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	553	0.025	14	0.0	0.0	6.672	A
C-AB	11	3	616	0.017	10	0.0	0.0	5.941	A
C-A	32	8			32				
A-B	26	7			26				
A-C	150	38			150				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	553	0.025	14	0.0	0.0	6.673	A
C-AB	11	3	616	0.017	11	0.0	0.0	5.944	A
C-A	32	8			32				
A-B	26	7			26				
A-C	150	38			150				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	553	0.025	14	0.0	0.0	6.673	A
C-AB	11	3	616	0.017	11	0.0	0.0	5.941	A
C-A	32	8			32				
A-B	26	7			26				
A-C	150	38			150				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	553	0.025	14	0.0	0.0	6.673	A
C-AB	11	3	616	0.017	11	0.0	0.0	5.944	A
C-A	32	8			32				
A-B	26	7			26				
A-C	150	38			150				



Appendix M - 2032 Capacity Analysis: Hyde End Road Access Junction

Junctions 10						
PICADY 10 - Priority Intersection Module						
Version: 10.1.0.1820						
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Filename: SANG & Site Access with Hyde End Road.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\2. SANG & Site Access Hyde End Road priority junction\Capacity Assessment File

Report generation date: 09/04/2025 11:21:55

»2032 With Development, AM

»2032 With Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2032 With Development						
Stream B-C	0.1	8.25	0.05	0.0	6.74	0.03
Stream B-A	0.2	20.21	0.16	0.0	12.14	0.05
Stream C-AB	0.1	3.14	0.05	0.1	4.23	0.08

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hyde End Road
Location	Shinfield
Site number	HD068
Date	14/01/2025
Version	
Status	Proposed
Identifier	
Client	
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 With Development	AM	FLAT	08:00	09:00	60	15	✓
D2	2032 With Development	PM	FLAT	17:00	18:00	60	15	✓
D3	2038 With Development	AM	FLAT	08:00	09:00	60	15	
D4	2038 With Development	PM	FLAT	17:00	18:00	60	15	

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2032 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Hyde End Road (S) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Hyde End Road Access	T-Junction	Two-way	Two-way	Two-way		0.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.62	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hyde End Road (N)		Major
B	Site Access		Minor
C	Hyde End Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hyde End Road (S)	5.30			170.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane plus flare	7.57	3.80	3.79	3.50	3.30	✓	1.00	14	24

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	533	0.101	0.254	0.160	0.363
B-C	641	0.101	0.255	-	-
C-B	672	0.268	0.268	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 With Development	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (N)		FLAT	✓	641	100.000
B - Site Access		FLAT	✓	55	100.000
C - Hyde End Road (S)		FLAT	✓	995	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
From	A - Hyde End Road (N)	0	17	624
	B - Site Access	33	0	22
	C - Hyde End Road (S)	983	12	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
From	A - Hyde End Road (N)	0	0	0
	B - Site Access	0	0	0
	C - Hyde End Road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.05	8.25	0.1	A	22	22
B-A	0.16	20.21	0.2	C	33	33
C-AB	0.05	3.14	0.1	A	64	64
C-A					931	931
A-B					17	17
A-C					624	624

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	460	0.048	22	0.0	0.0	8.213	A
B-A	33	8	211	0.156	32	0.0	0.2	20.059	C
C-AB	64	16	1210	0.053	64	0.0	0.1	3.140	A
C-A	931	233			931				
A-B	17	4			17				
A-C	624	156			624				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	458	0.048	22	0.0	0.1	8.249	A
B-A	33	8	211	0.156	33	0.2	0.2	20.209	C
C-AB	64	16	1210	0.053	64	0.1	0.1	3.143	A
C-A	931	233			931				
A-B	17	4			17				
A-C	624	156			624				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	458	0.048	22	0.1	0.1	8.249	A
B-A	33	8	211	0.156	33	0.2	0.2	20.212	C
C-AB	64	16	1210	0.053	64	0.1	0.1	3.143	A
C-A	931	233			931				
A-B	17	4			17				
A-C	624	156			624				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	458	0.048	22	0.1	0.1	8.249	A
B-A	33	8	211	0.156	33	0.2	0.2	20.214	C
C-AB	64	16	1210	0.053	64	0.1	0.1	3.143	A
C-A	931	233			931				
A-B	17	4			17				
A-C	624	156			624				

2032 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Hyde End Road (S) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Hyde End Road Access	T-Junction	Two-way	Two-way	Two-way		0.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2032 With Development	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (N)		FLAT	✓	504	100.000
B - Site Access		FLAT	✓	28	100.000
C - Hyde End Road (S)		FLAT	✓	576	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
From	A - Hyde End Road (N)	0	22	482
	B - Site Access	14	0	14
	C - Hyde End Road (S)	548	28	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To			
		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
	A - Hyde End Road (N)	0	0	0
	B - Site Access	0	0	0
	C - Hyde End Road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.03	6.74	0.0	A	14	14
B-A	0.05	12.14	0.0	B	14	14
C-AB	0.08	4.23	0.1	A	69	69
C-A					507	507
AB					22	22
AC					482	482

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	549	0.026	14	0.0	0.0	6.733	A
B-A	14	4	310	0.045	14	0.0	0.0	12.132	B
C-AB	69	17	922	0.075	69	0.0	0.1	4.220	A
C-A	507	127			507				
AB	22	6			22				
AC	482	121			482				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	548	0.026	14	0.0	0.0	6.741	A
B-A	14	4	311	0.045	14	0.0	0.0	12.138	B
C-AB	69	17	922	0.075	69	0.1	0.1	4.225	A
C-A	507	127			507				
AB	22	6			22				
AC	482	121			482				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	548	0.026	14	0.0	0.0	6.741	A
B-A	14	4	311	0.045	14	0.0	0.0	12.138	B
C-AB	69	17	922	0.075	69	0.1	0.1	4.225	A
C-A	507	127			507				
AB	22	6			22				
AC	482	121			482				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	548	0.026	14	0.0	0.0	6.741	A
B-A	14	4	311	0.045	14	0.0	0.0	12.138	B
C-AB	69	17	922	0.075	69	0.1	0.1	4.226	A
C-A	507	127			507				
A-B	22	6			22				
A-C	482	121			482				



Appendix N - 2032 Capacity Analysis: Hyde End Road/Appleton Way Junction

Junctions 10		
PICADY 10 - Priority Intersection Module		
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023		
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Filename: Appleton Way Hyde End Road - v2.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\3. Appleton Way Hyde End Road priority junction\Capacity Assessment File

Report generation date: 11/04/2025 14:35:48

»2032, AM

»2032, PM

»2032 + Development, AM

»2032 + Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2032						
Stream B-C	0.0	0.00	0.00	0.0	0.00	0.00
Stream B-A	1.4	29.70	0.59	0.1	8.86	0.07
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
2032 + Development						
Stream B-C	0.1	16.19	0.06	0.0	6.65	0.01
Stream B-A	2.0	38.57	0.68	0.1	9.23	0.09
Stream C-AB	0.0	8.87	0.02	0.0	6.93	0.02

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hyde End Road
Location	Shinfield
Site number	HD068
Date	08/04/2025
Version	
Status	Existing
Identifier	
Client	Bloor Homes
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032	AM	FLAT	08:00	09:00	60	15	✓
D2	2032	PM	FLAT	17:00	18:00	60	15	✓
D3	2032 + Development	AM	FLAT	08:00	09:00	60	15	✓
D4	2032 + Development	PM	FLAT	17:00	18:00	60	15	✓
D5	2038	AM	FLAT	08:00	09:00	60	15	
D6	2038	PM	FLAT	17:00	18:00	60	15	
D7	2038 + Development	AM	FLAT	08:00	09:00	60	15	
D8	2038 + Development	PM	FLAT	17:00	18:00	60	15	

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2032, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		3.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.21	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hyde End Road (S)		Major
B	Appleton Way		Minor
C	Hyde End Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hyde End Road (N)	6.10		✓	2.20	180.0	✓	4.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Appleton Way	One lane plus flare	10.00	6.44	4.30	3.42	3.20	✓	1.00	230	71

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	660	0.119	0.300	0.189	0.429
B-C	683	0.105	0.266	-	-
C-B	678	0.262	0.262	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	994	100.000
B - Appleton Way		FLAT	✓	174	100.000
C - Hyde End Road (N)		FLAT	✓	441	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	94	900
	B - Appleton Way	174	0	0
	C - Hyde End Road (N)	441	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.59	29.70	1.4	D	174	174
C-AB	0.00	0.00	0.0	A	0	0
C-A					441	441
A-B					94	94
A-C					900	900

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	370	0.000	0	0.0	0.0	0.000	A
B-A	174	44	295	0.590	169	0.0	1.3	27.485	D
C-AB	0	0	836	0.000	0	0.0	0.0	0.000	A
C-A	441	110			441				
A-B	94	24			94				
A-C	900	225			900				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	368	0.000	0	0.0	0.0	0.000	A
B-A	174	44	295	0.590	174	1.3	1.4	29.589	D
C-AB	0	0	836	0.000	0	0.0	0.0	0.000	A
C-A	441	110			441				
A-B	94	24			94				
A-C	900	225			900				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	368	0.000	0	0.0	0.0	0.000	A
B-A	174	44	295	0.590	174	1.4	1.4	29.671	D
C-AB	0	0	836	0.000	0	0.0	0.0	0.000	A
C-A	441	110			441				
A-B	94	24			94				
A-C	900	225			900				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	368	0.000	0	0.0	0.0	0.000	A
B-A	174	44	295	0.590	174	1.4	1.4	29.700	D
C-AB	0	0	836	0.000	0	0.0	0.0	0.000	A
C-A	441	110			441				
A-B	94	24			94				
A-C	900	225			900				

2032, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.27	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2032	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	546	100.000
B - Appleton Way		FLAT	✓	31	100.000
C - Hyde End Road (N)		FLAT	✓	456	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	152	394
	B - Appleton Way	31	0	0
	C - Hyde End Road (N)	456	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.07	8.86	0.1	A	31	31
C-AB	0.00	0.00	0.0	A	0	0
C-A					456	456
A-B					152	152
A-C					394	394

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	553	0.000	0	0.0	0.0	0.000	A
B-A	31	8	437	0.071	31	0.0	0.1	8.851	A
C-AB	0	0	1071	0.000	0	0.0	0.0	0.000	A
C-A	456	114			456				
A-B	152	38			152				
A-C	394	99			394				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	553	0.000	0	0.0	0.0	0.000	A
B-A	31	8	437	0.071	31	0.1	0.1	8.863	A
C-AB	0	0	1071	0.000	0	0.0	0.0	0.000	A
C-A	456	114			456				
A-B	152	38			152				
A-C	394	99			394				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	553	0.000	0	0.0	0.0	0.000	A
B-A	31	8	437	0.071	31	0.1	0.1	8.863	A
C-AB	0	0	1071	0.000	0	0.0	0.0	0.000	A
C-A	456	114			456				
A-B	152	38			152				
A-C	394	99			394				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	553	0.000	0	0.0	0.0	0.000	A
B-A	31	8	437	0.071	31	0.1	0.1	8.863	A
C-AB	0	0	1071	0.000	0	0.0	0.0	0.000	A
C-A	456	114			456				
A-B	152	38			152				
A-C	394	99			394				

2032 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		4.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.69	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 + Development	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	1010	100.000
B - Appleton Way		FLAT	✓	210	100.000
C - Hyde End Road (N)		FLAT	✓	449	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	102	908
	B - Appleton Way	195	0	15
	C - Hyde End Road (N)	441	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.06	16.19	0.1	C	15	15
B-A	0.68	38.57	2.0	E	195	195
C-AB	0.02	8.87	0.0	A	8	8
C-A					441	441
A-B					102	102
A-C					908	908

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	253	0.059	15	0.0	0.1	15.086	C
B-A	195	49	288	0.677	188	0.0	1.9	33.809	D
C-AB	8	2	414	0.019	8	0.0	0.0	8.867	A
C-A	441	110			441				
A-B	102	26			102				
A-C	908	227			908				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	239	0.063	15	0.1	0.1	16.102	C
B-A	195	49	288	0.678	195	1.9	2.0	38.193	E
C-AB	8	2	414	0.019	8	0.0	0.0	8.868	A
C-A	441	110			441				
A-B	102	26			102				
A-C	908	227			908				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	238	0.063	15	0.1	0.1	16.163	C
B-A	195	49	288	0.678	195	2.0	2.0	38.466	E
C-AB	8	2	414	0.019	8	0.0	0.0	8.868	A
C-A	441	110			441				
A-B	102	26			102				
A-C	908	227			908				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	237	0.063	15	0.1	0.1	16.187	C
B-A	195	49	288	0.678	195	2.0	2.0	38.569	E
C-AB	8	2	414	0.019	8	0.0	0.0	8.868	A
C-A	441	110			441				
A-B	102	26			102				
A-C	908	227			908				

2032 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.47	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2032 + Development	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	556	100.000
B - Appleton Way		FLAT	✓	47	100.000
C - Hyde End Road (N)		FLAT	✓	472	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	164	392
	B - Appleton Way	40	0	7
	C - Hyde End Road (N)	459	13	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	6.65	0.0	A	7	7
B-A	0.09	9.23	0.1	A	40	40
C-AB	0.02	6.93	0.0	A	13	13
C-A					459	459
A-B					164	164
A-C					392	392

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	549	0.013	7	0.0	0.0	6.646	A
B-A	40	10	430	0.093	40	0.0	0.1	9.207	A
C-AB	13	3	533	0.024	13	0.0	0.0	6.926	A
C-A	459	115			459				
A-B	164	41			164				
A-C	392	98			392				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	548	0.013	7	0.0	0.0	6.648	A
B-A	40	10	430	0.093	40	0.1	0.1	9.226	A
C-AB	13	3	533	0.024	13	0.0	0.0	6.926	A
C-A	459	115			459				
A-B	164	41			164				
A-C	392	98			392				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	548	0.013	7	0.0	0.0	6.648	A
B-A	40	10	430	0.093	40	0.1	0.1	9.226	A
C-AB	13	3	533	0.024	13	0.0	0.0	6.926	A
C-A	459	115			459				
A-B	164	41			164				
A-C	392	98			392				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	548	0.013	7	0.0	0.0	6.648	A
B-A	40	10	430	0.093	40	0.1	0.1	9.226	A
C-AB	13	3	533	0.024	13	0.0	0.0	6.926	A
C-A	459	115			459				
A-B	164	41			164				
A-C	392	98			392				



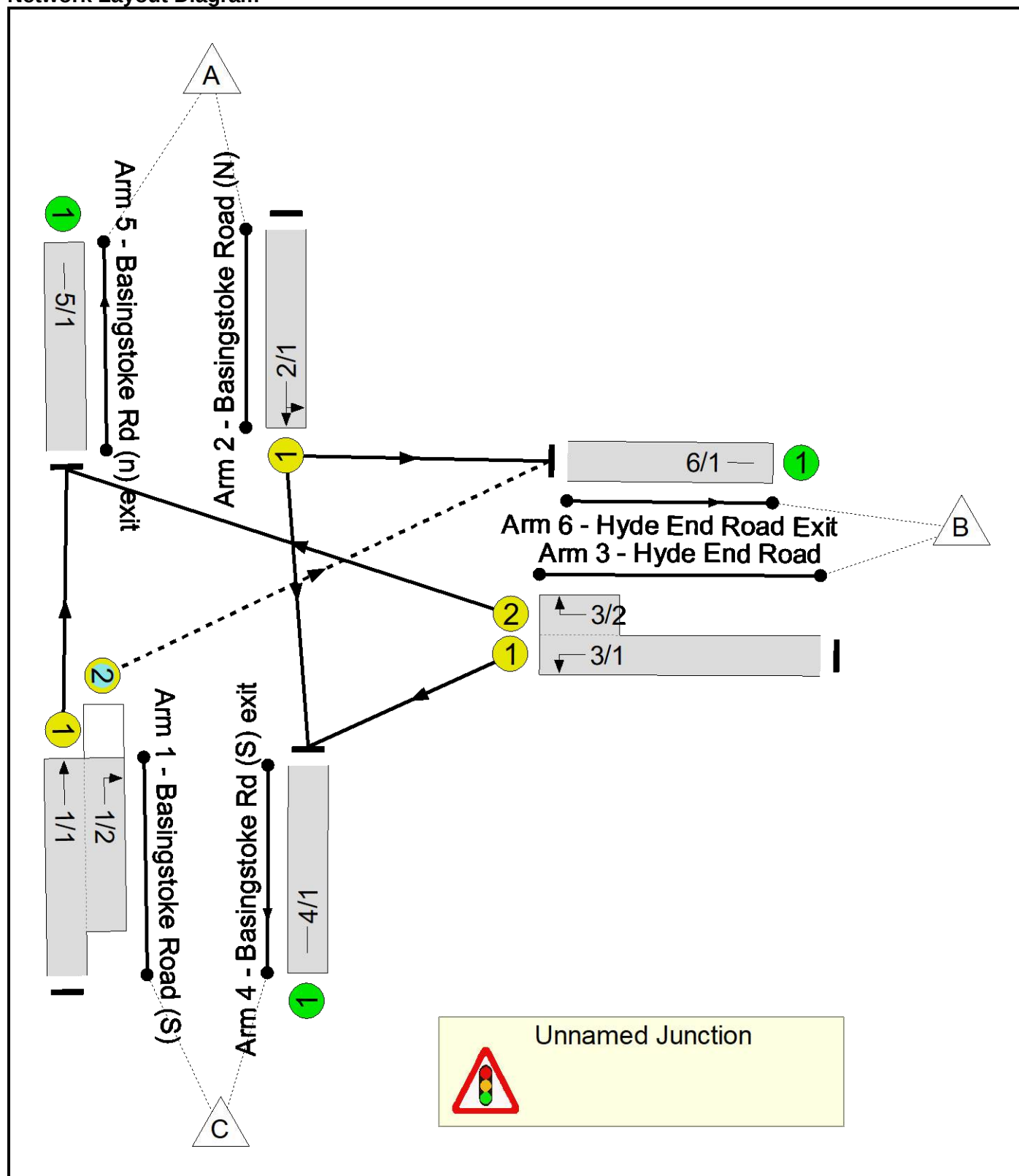
Appendix O - 2032 Capacity Analysis: Hyde End Road / Basingstoke Road Signals

Full Input Data And Results

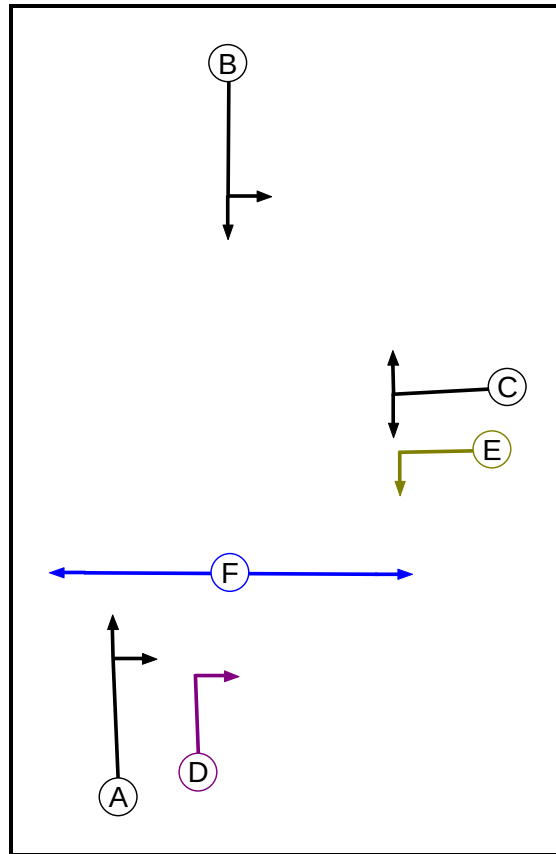
User and Project Details

Project:	
Title:	Basingstoke Road and Hyde End with Pedestrians
Location:	
Additional detail:	
File name:	Basingstoke Road and Hyde End with Ped (2032).lsg3x
Author:	Transport
Company:	Abley Letchford
Address:	

Network Layout Diagram

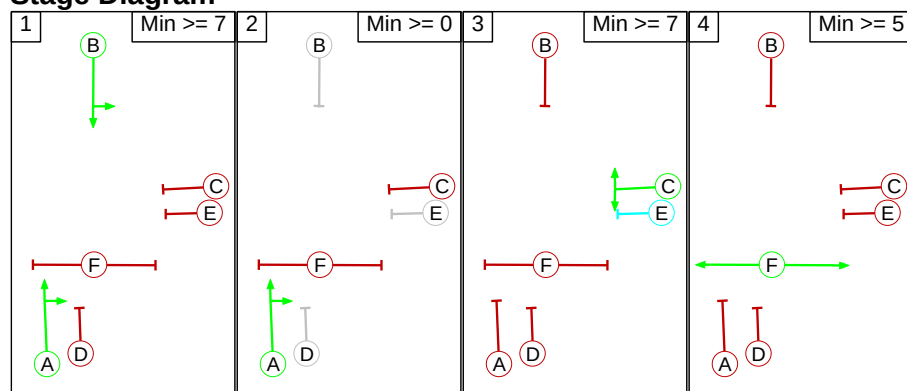


Phase Diagram



Full Input Data And Results

Stage Diagram



Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Basingstoke Road (S))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
1/2 (Basingstoke Road (S))	O	A D	2	3	8.0	Geom	-	2.70	0.00	N	Arm 6 Right	25.00
2/1 (Basingstoke Road (N))	U	B	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Left	9.00
3/1 (Hyde End Road)	U	C E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	20.00
3/2 (Hyde End Road)	U	C	2	3	3.0	Geom	-	3.00	0.00	N	Arm 5 Right	11.00
4/1 (Basingstoke Rd (S) exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Basingstoke Rd (n) exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Hyde End Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

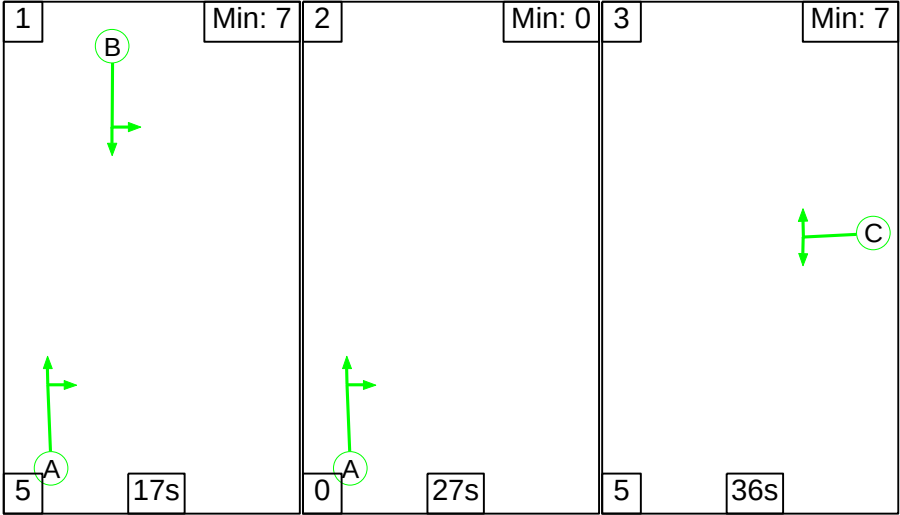
Scenario 1: '2032 Base AM' (FG1: '2032 Base AM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	18	312	330
	B	112	0	547	659
	C	407	572	0	979
	Tot.	519	590	859	1968

Stage Sequence Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	88.6%	35	524	13	23.2	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	88.6%	35	524	13	23.2	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	44	979	1915:1910	1105	88.6%	35	524	13	10.2	15.0	3.7	18.7
2/1	Basingstoke Road (N) Ahead Left	U	B	1	17	330	1957	391	84.3%	-	-	-	5.7	7.9	2.5	10.4
3/1+3/2	Hyde End Road Left Right	U	C	1	36	659	1781:1808	760	86.8%	-	-	-	7.4	14.2	3.1	17.3
4/1	Basingstoke Rd (S) exit	U	-	-	-	859	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	519	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	590	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1																
PRC for Signalled Lanes (%):							1.6	Total Delay for Signalled Lanes (pcuHr):				23.22	Cycle Time (s): 90			
PRC Over All Lanes (%):							1.6	Total Delay Over All Lanes(pcuHr):				23.22				

Full Input Data And Results

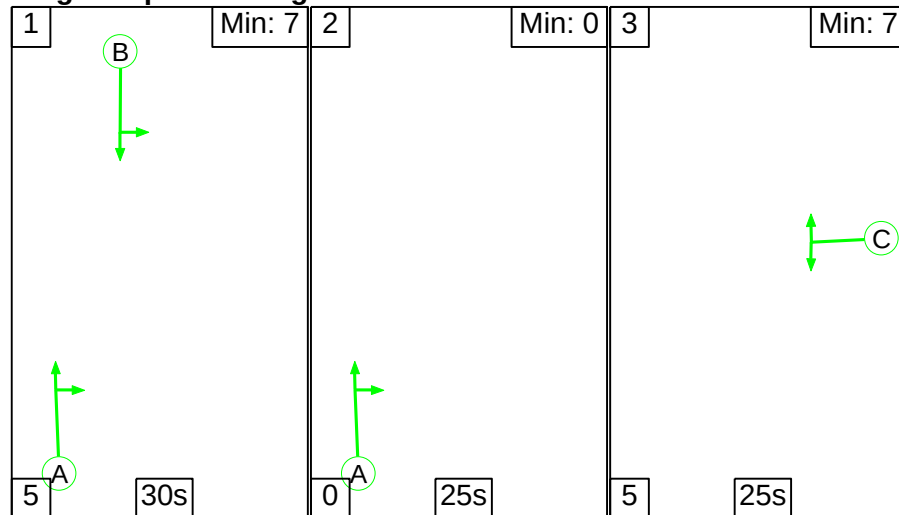
Scenario 2: '2032 Base PM' (FG2: '2032 Base PM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	47	396	443
	B	16	0	334	350
	C	322	464	0	786
	Tot.	338	511	730	1579

Stage Sequence Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	67.2%	123	331	10	12.7	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	67.2%	123	331	10	12.7	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	55	786	1915:1910	1170	67.2%	123	331	10	4.9	9.7	1.0	10.7
2/1	Basingstoke Road (N) Ahead Left	U	B	1	30	443	1941	669	66.3%	-	-	-	4.1	9.4	1.0	10.3
3/1+3/2	Hyde End Road Left Right	U	C	1	25	350	1781:1808	522	67.1%	-	-	-	3.7	7.5	1.0	8.5
4/1	Basingstoke Rd (S) exit	U	-	-	-	730	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	338	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	511	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 34.0 Total Delay for Signalled Lanes (pcuHr): 12.66 Cycle Time (s): 90 PRC Over All Lanes (%): 34.0 Total Delay Over All Lanes(pcuHr): 12.66																

Full Input Data And Results

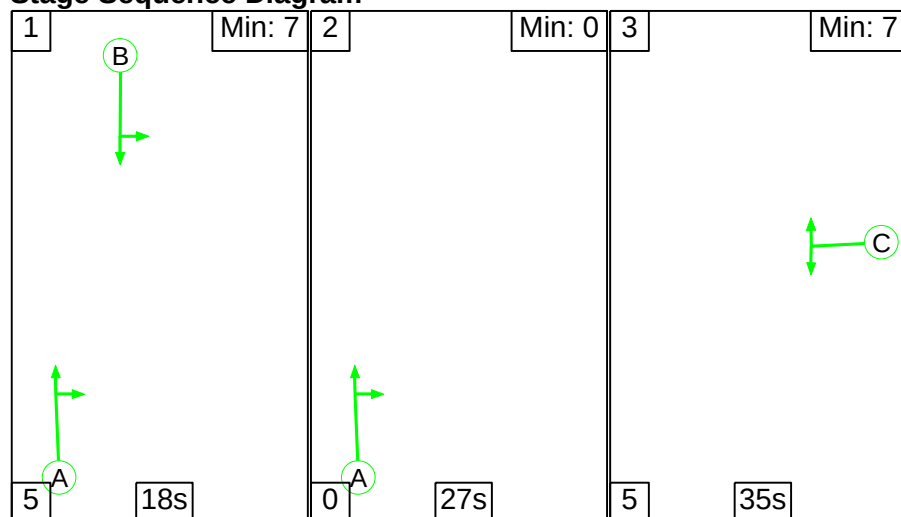
Scenario 3: '2032 with Development AM' (FG3: '2032 with Development AM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	24	350	374
	B	110	0	593	703
	C	409	597	0	1006
	Tot.	519	621	943	2083

Stage Sequence Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	95.3%	24	531	42	33.3	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	95.3%	24	531	42	33.3	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	45	1006	1915:1910	1069	94.1%	24	531	42	13.5	17.2	6.6	23.7
2/1	Basingstoke Road (N) Ahead Left	U	B	1	18	374	1954	413	90.7%	-	-	-	7.6	9.0	4.0	13.1
3/1+3/2	Hyde End Road Left Right	U	C	1	35	703	1781:1808	737	95.3%	-	-	-	12.2	16.4	7.2	23.6
4/1	Basingstoke Rd (S) exit	U	-	-	-	943	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	519	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	621	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):				-5.9	Total Delay for Signalled Lanes (pcuHr):				33.30	Cycle Time (s): 90			
			PRC Over All Lanes (%):				-5.9	Total Delay Over All Lanes(pcuHr):				33.30				

Full Input Data And Results

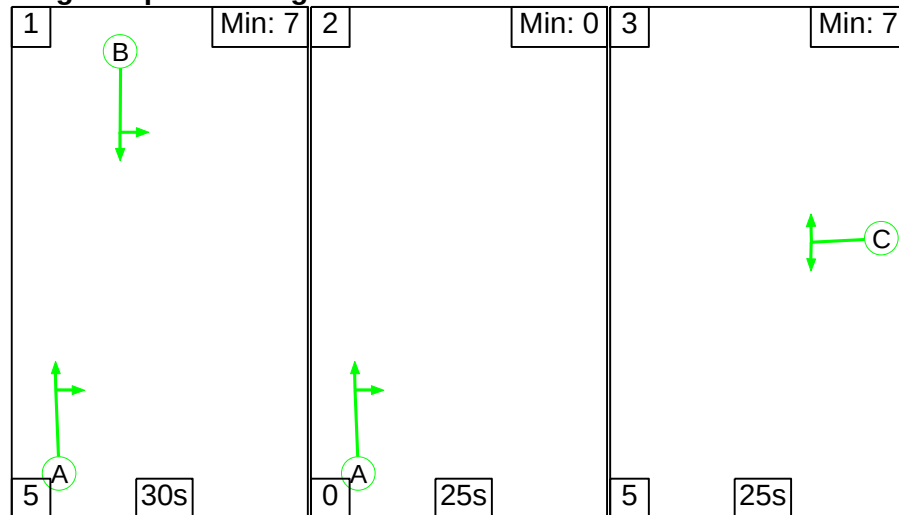
Scenario 4: '2032 with Development PM' (FG4: '2032 with Development PM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	56	395	451
	B	18	0	336	354
	C	320	479	0	799
	Tot.	338	535	731	1604

Stage Sequence Diagram



Network Results

Network Results																
Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	69.7%	119	350	11	13.2	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	69.7%	119	350	11	13.2	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	55	799	1915:1910	1146	69.7%	119	350	11	5.2	10.1	1.1	11.3
2/1	Basingstoke Road (N) Ahead Left	U	B	1	30	451	1935	667	67.7%	-	-	-	4.2	9.5	1.0	10.6
3/1+3/2	Hyde End Road Left Right	U	C	1	25	354	1781:1808	523	67.8%	-	-	-	3.8	7.6	1.0	8.6
4/1	Basingstoke Rd (S) exit	U	-	-	-	731	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	338	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	535	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1PRC for Signalised Lanes (%): 29.1Total Delay for Signalised Lanes (pcuHr): 13.16Cycle Time (s): 90 PRC Over All Lanes (%): 29.1Total Delay Over All Lanes(pcuHr): 13.16																



Appendix P - 2032 Capacity Analysis: Church Lane Mini Roundabout

Junctions 10			
ARCADY 10 - Roundabout Module			
Version: 10.1.0.1820			
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Filename: Church Lane Basingstoke Road Roundabout.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\5. Church Lane Basingstoke Road Junction\Capacity Assessment File

Report generation date: 09/04/2025 15:35:06

- »2032 Base, AM
- »2032 Base, PM
- »2032 With Dev, AM
- »2032 With Dev, PM

Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
2032 Base				
1 - Basingstoke Road (N)	48.0	1.03	136.5	1.14
2 - Church Lane	12.2	0.94	11.6	0.94
3 - Basingstoke Road (S)	51.1	1.06	1.7	0.63
2032 With Dev				
1 - Basingstoke Road (N)	49.8	1.04	156.2	1.17
2 - Church Lane	12.8	0.95	12.8	0.94
3 - Basingstoke Road (S)	53.1	1.06	1.7	0.64

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	09/04/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTIONS 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 Base	AM	FLAT	08:00	09:00	60	15	✓
D2	2032 Base	PM	FLAT	17:00	18:00	60	15	✓
D3	2032 With Dev	AM	FLAT	08:00	09:00	60	15	✓
D4	2032 With Dev	PM	FLAT	17:00	18:00	60	15	✓
D5	2038 Base	AM	FLAT	08:00	09:00	60	15	
D6	2038 Base	PM	FLAT	17:00	18:00	60	15	
D7	2038 With Dev	AM	FLAT	08:00	09:00	60	15	
D8	2038 With Dev	PM	FLAT	17:00	18:00	60	15	

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
AL	✓	100.000	100.000

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	166.62	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		166.62	F

Arms

Arms

Arm	Name	Description
1	Basingstoke Road (N)	
2	Church Lane	
3	Basingstoke Road (S)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Basingstoke Road (N)	3.60	3.60	4.90	1.0	8.40	3.80	0.0	
2 - Church Lane	3.60	3.60	6.00	7.0	11.60	9.30	0.0	
3 - Basingstoke Road (S)	4.50	3.65	4.70	23.0	15.00	15.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Basingstoke Road (N)	0.622	962
2 - Church Lane	0.658	1059
3 - Basingstoke Road (S)	0.674	1160

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 Base	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	937	100.000
2 - Church Lane		FLAT	✓	737	100.000
3 - Basingstoke Road (S)		FLAT	✓	733	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	543	394
	2 - Church Lane	644	0	93
	3 - Basingstoke Road (S)	659	74	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	0
	2 - Church Lane	1	0	20
	3 - Basingstoke Road (S)	2	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.03	183.13	48.0	F	937	937
2 - Church Lane	0.94	63.31	12.2	F	737	737
3 - Basingstoke Road (S)	1.06	249.19	51.1	F	733	733

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	937	234	67	909	1.031	863	1216	0.0	18.6	52.090	F
2 - Church Lane	737	184	363	793	0.929	705	567	0.0	8.0	33.554	D
3 - Basingstoke Road (S)	733	183	616	708	1.035	667	452	0.0	16.4	59.544	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	937	234	69	908	1.032	894	1252	18.6	29.4	108.816	F
2 - Church Lane	737	184	376	785	0.939	728	587	8.0	10.2	52.897	F
3 - Basingstoke Road (S)	733	183	636	695	1.055	685	468	16.4	28.5	132.694	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	937	234	69	907	1.033	899	1258	29.4	39.0	147.473	F
2 - Church Lane	737	184	378	783	0.941	732	590	10.2	11.4	59.430	F
3 - Basingstoke Road (S)	733	183	640	693	1.058	687	470	28.5	39.9	191.697	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	937	234	69	907	1.033	901	1260	39.0	48.0	183.128	F
2 - Church Lane	737	184	379	783	0.941	734	592	11.4	12.2	63.313	F
3 - Basingstoke Road (S)	733	183	641	692	1.060	688	471	39.9	51.1	249.195	F

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	242.87	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		242.87	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2032 Base	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	1041	100.000
2 - Church Lane		FLAT	✓	754	100.000
3 - Basingstoke Road (S)		FLAT	✓	469	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	612	429
	2 - Church Lane	587	0	167
	3 - Basingstoke Road (S)	407	62	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	1
	2 - Church Lane	0	0	2
	3 - Basingstoke Road (S)	0	23	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.14	482.49	136.5	F	1041	1041
2 - Church Lane	0.94	58.73	11.6	F	754	754
3 - Basingstoke Road (S)	0.63	13.15	1.7	B	469	469

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1041	260	61	912	1.142	888	964	0.0	38.2	88.034	F
2 - Church Lane	754	188	366	812	0.929	722	583	0.0	8.0	32.937	D
3 - Basingstoke Road (S)	469	117	562	758	0.619	463	526	0.0	1.6	11.972	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1041	260	62	911	1.143	909	988	38.2	71.2	226.869	F
2 - Church Lane	754	188	375	806	0.935	746	596	8.0	10.0	50.736	F
3 - Basingstoke Road (S)	469	117	581	745	0.629	469	540	1.6	1.7	12.992	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1041	260	62	911	1.143	910	991	71.2	103.9	354.521	F
2 - Church Lane	754	188	375	806	0.936	750	597	10.0	11.0	55.900	F
3 - Basingstoke Road (S)	469	117	584	743	0.631	469	541	1.7	1.7	13.107	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1041	260	62	911	1.143	910	992	103.9	136.5	482.491	F
2 - Church Lane	754	188	375	806	0.936	751	597	11.0	11.6	58.733	F
3 - Basingstoke Road (S)	469	117	585	742	0.632	469	542	1.7	1.7	13.151	B

2032 With Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	171.29	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		171.29	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 With Dev	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	945	100.000
2 - Church Lane		FLAT	✓	741	100.000
3 - Basingstoke Road (S)		FLAT	✓	743	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	552	393
	2 - Church Lane	643	0	98
	3 - Basingstoke Road (S)	678	65	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	0
	2 - Church Lane	1	0	19
	3 - Basingstoke Road (S)	1	30	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.04	188.22	49.8	F	945	945
2 - Church Lane	0.95	65.78	12.8	F	741	741
3 - Basingstoke Road (S)	1.06	255.56	53.1	F	743	743

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	945	236	59	914	1.034	869	1231	0.0	19.1	52.672	F
2 - Church Lane	741	185	361	794	0.933	708	567	0.0	8.2	34.144	D
3 - Basingstoke Road (S)	743	186	614	716	1.038	676	455	0.0	16.8	59.998	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	945	236	61	913	1.035	900	1267	19.1	30.3	110.809	F
2 - Church Lane	741	185	374	786	0.943	732	586	8.2	10.5	54.427	F
3 - Basingstoke Road (S)	743	186	635	702	1.058	693	471	16.8	29.4	134.720	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	945	236	61	913	1.035	905	1273	30.3	40.3	150.960	F
2 - Church Lane	741	185	376	785	0.944	736	589	10.5	11.9	61.504	F
3 - Basingstoke Road (S)	743	186	638	700	1.061	695	474	29.4	41.4	195.757	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	945	236	61	913	1.035	907	1275	40.3	49.8	188.216	F
2 - Church Lane	741	185	377	784	0.945	737	591	11.9	12.8	65.784	F
3 - Basingstoke Road (S)	743	186	640	699	1.063	696	475	41.4	53.1	255.562	F

2032 With Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	277.02	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		277.02	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2032 With Dev	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	1060	100.000
2 - Church Lane		FLAT	✓	762	100.000
3 - Basingstoke Road (S)		FLAT	✓	472	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	625	435
	2 - Church Lane	590	0	172
	3 - Basingstoke Road (S)	408	64	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	1
	2 - Church Lane	0	0	2
	3 - Basingstoke Road (S)	0	23	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.17	550.65	156.2	F	1060	1060
2 - Church Lane	0.94	64.16	12.8	F	762	762
3 - Basingstoke Road (S)	0.64	13.40	1.7	B	472	472

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1060	265	63	910	1.165	889	966	0.0	42.7	96.527	F
2 - Church Lane	762	191	365	813	0.938	728	587	0.0	8.6	34.394	D
3 - Basingstoke Road (S)	472	118	563	756	0.624	466	529	0.0	1.6	12.143	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1060	265	64	909	1.166	908	991	42.7	80.7	254.395	F
2 - Church Lane	762	191	373	807	0.944	753	599	8.6	10.8	54.296	F
3 - Basingstoke Road (S)	472	118	583	743	0.635	472	543	1.6	1.7	13.224	B

17:30 - 17:45

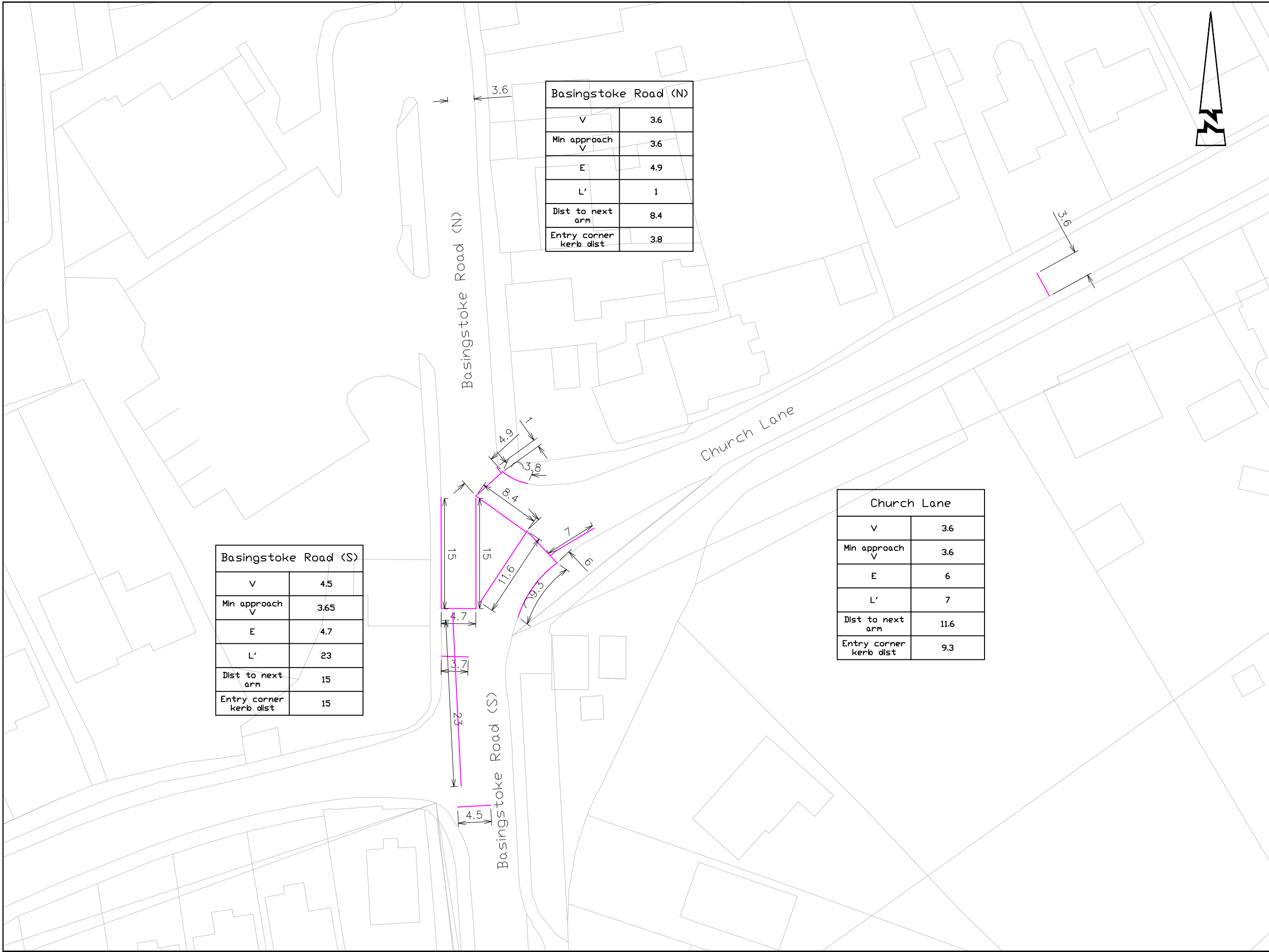
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1060	265	64	909	1.166	909	994	80.7	118.5	402.271	F
2 - Church Lane	762	191	373	807	0.944	757	600	10.8	12.0	60.553	F
3 - Basingstoke Road (S)	472	118	586	741	0.637	472	544	1.7	1.7	13.353	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1060	265	64	909	1.166	909	996	118.5	156.2	550.649	F
2 - Church Lane	762	191	373	807	0.944	759	600	12.0	12.8	64.156	F
3 - Basingstoke Road (S)	472	118	588	740	0.638	472	544	1.7	1.7	13.404	B



Appendix Q - Junction Geometries



Basingstoke Road (N)	
V	3.6
Min approach V	3.6
E	4.9
L'	1
Dist to next arm	8.4
Entry corner kerb dist	3.8

Basingstoke Road (S)	
V	4.5
Min approach V	3.65
E	4.7
L'	23
Dist to next arm	15
Entry corner kerb dist	15

Church Lane	
V	3.6
Min approach V	3.6
E	6
L'	7
Dist to next arm	11.6
Entry corner kerb dist	9.3

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NOTES

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P1	04.25	FOR ISSUE	AG	PJ
Rev	Date	Description	Drawn	Checked



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Client

BLOOR HOMES

Project

LAND EAST AND WEST
OF HYDE END ROAD

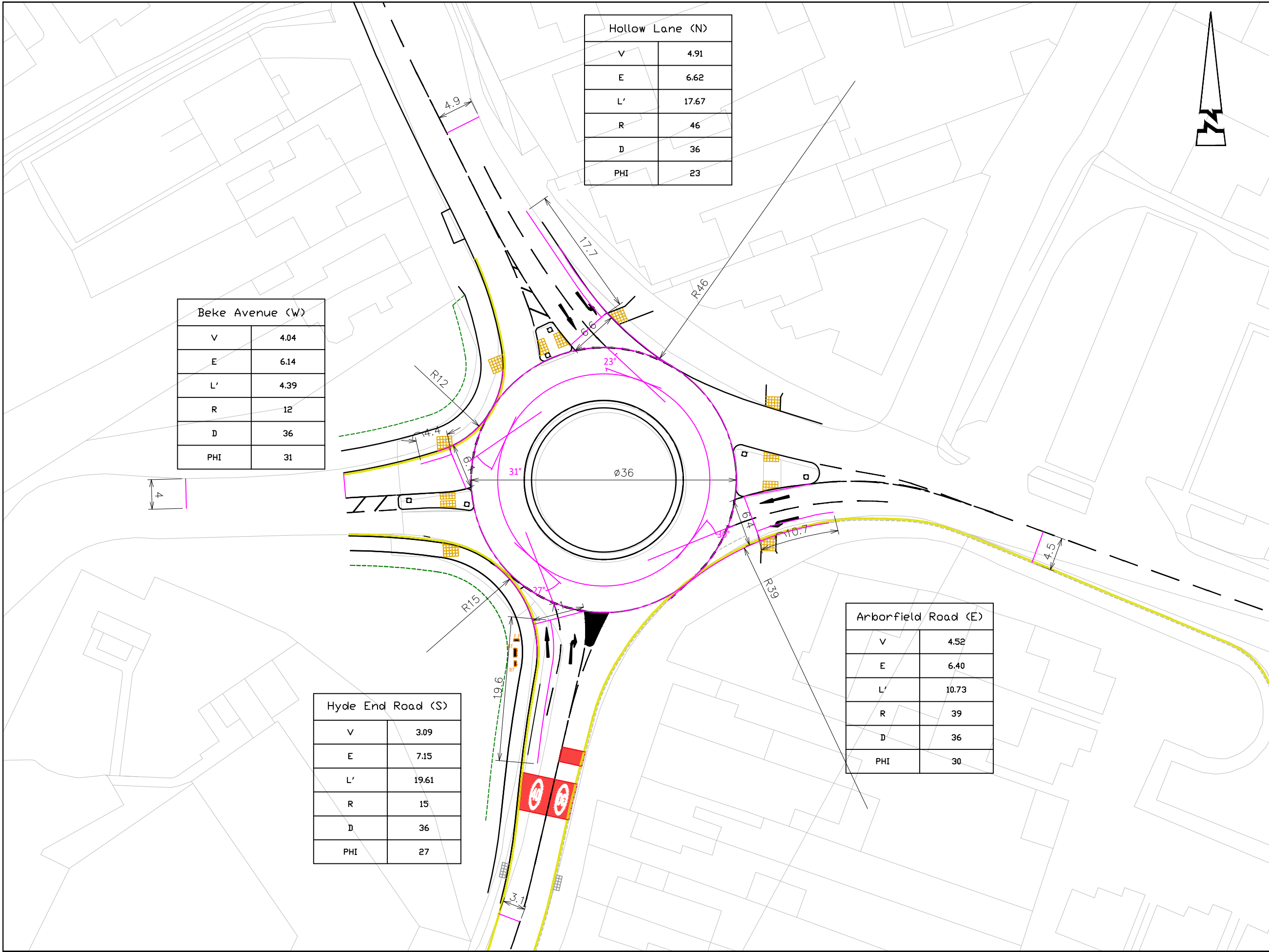
Title

BASINGSTOKE ROAD /
CHURCH LANE MINI
ROUNDBOUT GEOMETRIES

Status

FOR INFORMATION

Scale	Date	Drawn	Checked
1:500 @ A3	APR 25	AG	PJ
Drawing No			Revision
HD068-017			P1



Hollow Lane (N)	
V	4.91
E	6.62
L'	17.67
R	46
D	36
PHI	23

Beke Avenue (W)	
V	4.04
E	6.14
L'	4.39
R	12
D	36
PHI	31

Hyde End Road (S)	
V	3.09
E	7.15
L'	19.61
R	15
D	36
PHI	27

Arborfield Road (E)	
V	4.52
E	6.40
L'	10.73
R	39
D	36
PHI	30

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Client

BLOOR HOMES

Project

LAND EAST AND WEST
OF HYDE END ROAD

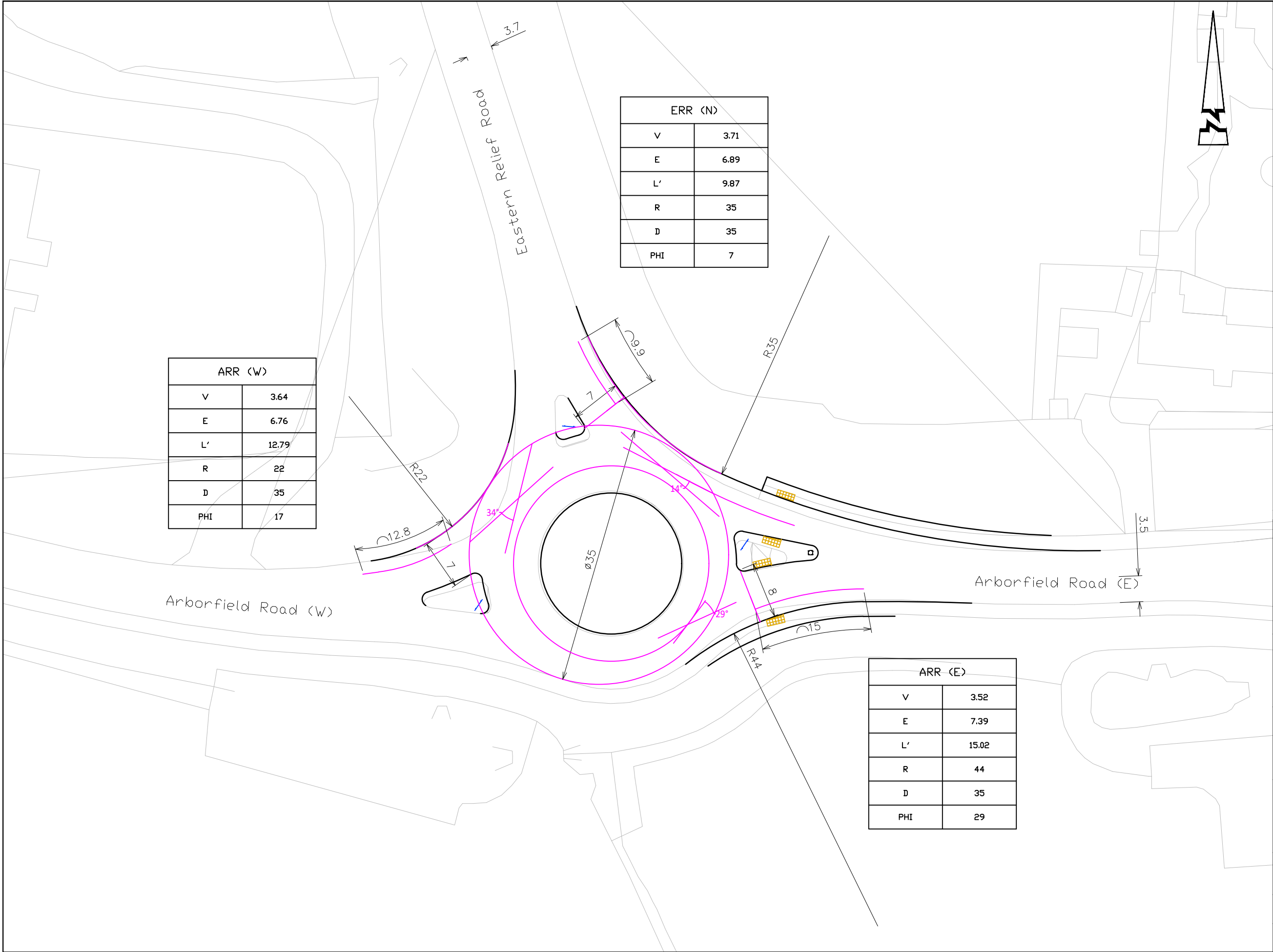
Title

HOLLOW LANE
ROUNDAABOUT
JUNCTION GEOMETRIES

Status

FOR INFORMATION

Scale	Date	Drawn	Checked
1:500 @ A3	APR 25	AG	PJ
Drawing No			Revision
HD068-015			P1



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P1	04.25	FOR ISSUE	AG	PJ
Rev	Date	Description	Drawn	Checked



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Client

BLOOR HOMES

Project

LAND EAST AND WEST
OF HYDE END ROAD

Title

EASTERN RELIEF ROAD /
ARBORFIELD ROAD
ROUNDBOUT GEOMETRIES

Status

FOR INFORMATION

Scale	Date	Drawn	Checked
1:500 @ A3	APR 25	AG	PJ
Drawing No	Revision		
HD068-016	P1		



Appendix R - 2032 Capacity Analysis: Hollow Lane Roundabout

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023		
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Filename: Hollow Lane.Arborfield Road Roundabout - Aug24 Dims.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\6. Hollow Lane Arborfield Road Hyde End Road Shinfield West Roundabout\Capacity Assessment File

Report generation date: 08/04/2025 17:30:26

»2032 FB, AM
»2032 FB, PM
»2032 WD, AM
»2032 WD, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2032 FB						
1 - Arborfield Road (E)	0.4	3.55	0.28	1.7	6.24	0.63
2 - B3349 Hyde End Road	3.2	10.37	0.76	0.8	5.21	0.45
3 - Shinfield West	0.4	7.23	0.26	0.4	5.67	0.29
4 - Hollow Lane	0.9	4.83	0.46	0.5	3.01	0.32
2032 WD						
1 - Arborfield Road (E)	0.4	3.58	0.29	1.9	6.59	0.65
2 - B3349 Hyde End Road	3.5	11.08	0.78	0.8	5.32	0.46
3 - Shinfield West	0.4	7.45	0.27	0.4	5.72	0.29
4 - Hollow Lane	0.9	4.91	0.47	0.5	3.00	0.32

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hollow Lane.Arborfield Road Roundabout
Location	Shinfield
Site number	HD068
Date	01/01/2025
Version	
Status	Existing
Identifier	
Client	
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 FB	AM	FLAT	08:00	09:00	60	15	✓
D4	2032 FB	PM	FLAT	17:00	18:00	60	15	✓
D5	2032 WD	AM	FLAT	08:00	09:00	60	15	✓
D6	2032 WD	PM	FLAT	17:00	18:00	60	15	✓
D7	2038 FB	AM	FLAT	08:00	09:00	60	15	
D8	2038 FB	PM	FLAT	17:00	18:00	60	15	
D9	2038 WD	AM	FLAT	08:00	09:00	60	15	
D10	2038 WD	PM	FLAT	17:00	18:00	60	15	

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2032 FB, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	7.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.45	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Arborfield Road (E)		
2	B3349 Hyde End Road		
3	Shinfield West		
4	Hollow Lane		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Arborfield Road (E)	4.52	6.40	10.7	39.0	36.0	30.0		
2 - B3349 Hyde End Road	3.09	7.15	19.6	15.0	36.0	27.0		
3 - Shinfield West	4.04	6.15	4.4	12.0	36.0	31.0		
4 - Hollow Lane	4.91	6.62	17.7	46.0	36.0	23.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Arborfield Road (E)	0.673	1776
2 - B3349 Hyde End Road	0.641	1666
3 - Shinfield West	0.583	1423
4 - Hollow Lane	0.723	1981

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 FB	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	403	100.000
2 - B3349 Hyde End Road		FLAT	✓	1130	100.000
3 - Shinfield West		FLAT	✓	178	100.000
4 - Hollow Lane		FLAT	✓	646	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	138	62	203
	2 - B3349 Hyde End Road	689	0	60	381
	3 - Shinfield West	61	65	0	52
	4 - Hollow Lane	179	438	29	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	0	0	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	1	0	2
	4 - Hollow Lane	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.28	3.55	0.4	A	403	403
2 - B3349 Hyde End Road	0.76	10.37	3.2	B	1130	1130
3 - Shinfield West	0.26	7.23	0.4	A	178	178
4 - Hollow Lane	0.46	4.83	0.9	A	646	646

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	403	101	529	1420	0.284	401	920	0.0	0.4	3.533	A
2 - B3349 Hyde End Road	1130	283	293	1479	0.764	1118	638	0.0	3.1	9.696	A
3 - Shinfield West	178	45	1260	688	0.259	177	150	0.0	0.3	7.086	A
4 - Hollow Lane	646	162	806	1398	0.462	643	631	0.0	0.9	4.750	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	403	101	532	1418	0.284	403	929	0.4	0.4	3.548	A
2 - B3349 Hyde End Road	1130	283	294	1478	0.765	1130	641	3.1	3.2	10.348	B
3 - Shinfield West	178	45	1273	681	0.261	178	151	0.3	0.4	7.223	A
4 - Hollow Lane	646	162	815	1392	0.464	646	636	0.9	0.9	4.830	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	403	101	532	1418	0.284	403	929	0.4	0.4	3.548	A
2 - B3349 Hyde End Road	1130	283	294	1478	0.765	1130	641	3.2	3.2	10.364	B
3 - Shinfield West	178	45	1273	681	0.261	178	151	0.4	0.4	7.225	A
4 - Hollow Lane	646	162	815	1392	0.464	646	636	0.9	0.9	4.830	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	403	101	532	1418	0.284	403	929	0.4	0.4	3.548	A
2 - B3349 Hyde End Road	1130	283	294	1478	0.765	1130	641	3.2	3.2	10.370	B
3 - Shinfield West	178	45	1273	681	0.261	178	151	0.4	0.4	7.225	A
4 - Hollow Lane	646	162	815	1392	0.464	646	636	0.9	0.9	4.831	A

2032 FB, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	5.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.17	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2032 FB	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	992	100.000
2 - B3349 Hyde End Road		FLAT	✓	558	100.000
3 - Shinfield West		FLAT	✓	255	100.000
4 - Hollow Lane		FLAT	✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	439	146	407
	2 - B3349 Hyde End Road	183	0	53	322
	3 - Shinfield West	76	46	0	133
	4 - Hollow Lane	303	163	98	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
	1 - Arborfield Road (E)	0	0	1	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	0	0	0
	4 - Hollow Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.63	6.24	1.7	A	992	992
2 - B3349 Hyde End Road	0.45	5.21	0.8	A	558	558
3 - Shinfield West	0.29	5.67	0.4	A	255	255
4 - Hollow Lane	0.32	3.01	0.5	A	564	564

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	992	248	306	1570	0.632	985	559	0.0	1.7	6.096	A
2 - B3349 Hyde End Road	558	140	647	1251	0.446	555	644	0.0	0.8	5.148	A
3 - Shinfield West	255	64	906	895	0.285	253	295	0.0	0.4	5.618	A
4 - Hollow Lane	564	141	303	1762	0.320	562	857	0.0	0.5	2.999	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	992	248	307	1569	0.632	992	562	1.7	1.7	6.241	A
2 - B3349 Hyde End Road	558	140	651	1249	0.447	558	648	0.8	0.8	5.214	A
3 - Shinfield West	255	64	912	891	0.286	255	297	0.4	0.4	5.673	A
4 - Hollow Lane	564	141	305	1761	0.320	564	862	0.5	0.5	3.010	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	992	248	307	1569	0.632	992	562	1.7	1.7	6.243	A
2 - B3349 Hyde End Road	558	140	651	1249	0.447	558	648	0.8	0.8	5.214	A
3 - Shinfield West	255	64	912	891	0.286	255	297	0.4	0.4	5.673	A
4 - Hollow Lane	564	141	305	1761	0.320	564	862	0.5	0.5	3.010	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	992	248	307	1569	0.632	992	562	1.7	1.7	6.243	A
2 - B3349 Hyde End Road	558	140	651	1249	0.447	558	648	0.8	0.8	5.214	A
3 - Shinfield West	255	64	912	891	0.286	255	297	0.4	0.4	5.673	A
4 - Hollow Lane	564	141	305	1761	0.320	564	862	0.5	0.5	3.010	A

2032 WD, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	7.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.85	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2032 WD	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	411	100.000
2 - B3349 Hyde End Road		FLAT	✓	1152	100.000
3 - Shinfield West		FLAT	✓	181	100.000
4 - Hollow Lane		FLAT	✓	648	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	146	62	203
	2 - B3349 Hyde End Road	699	0	61	392
	3 - Shinfield West	65	64	0	52
	4 - Hollow Lane	179	439	30	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
	1 - Arborfield Road (E)	0	0	0	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	1	0	2
	4 - Hollow Lane	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.29	3.58	0.4	A	411	411
2 - B3349 Hyde End Road	0.78	11.08	3.5	B	1152	1152
3 - Shinfield West	0.27	7.45	0.4	A	181	181
4 - Hollow Lane	0.47	4.91	0.9	A	648	648

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	411	103	530	1419	0.290	409	933	0.0	0.4	3.560	A
2 - B3349 Hyde End Road	1152	288	294	1478	0.779	1139	646	0.0	3.4	10.263	B
3 - Shinfield West	181	45	1280	676	0.268	180	152	0.0	0.4	7.291	A
4 - Hollow Lane	648	162	819	1389	0.466	645	641	0.0	0.9	4.818	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	411	103	533	1417	0.290	411	943	0.4	0.4	3.579	A
2 - B3349 Hyde End Road	1152	288	295	1477	0.780	1152	649	3.4	3.5	11.052	B
3 - Shinfield West	181	45	1294	669	0.271	181	153	0.4	0.4	7.447	A
4 - Hollow Lane	648	162	828	1383	0.469	648	647	0.9	0.9	4.905	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	411	103	533	1417	0.290	411	943	0.4	0.4	3.579	A
2 - B3349 Hyde End Road	1152	288	295	1477	0.780	1152	649	3.5	3.5	11.076	B
3 - Shinfield West	181	45	1294	669	0.271	181	153	0.4	0.4	7.449	A
4 - Hollow Lane	648	162	828	1383	0.469	648	647	0.9	0.9	4.906	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	411	103	533	1417	0.290	411	943	0.4	0.4	3.579	A
2 - B3349 Hyde End Road	1152	288	295	1477	0.780	1152	649	3.5	3.5	11.083	B
3 - Shinfield West	181	45	1294	669	0.271	181	153	0.4	0.4	7.449	A
4 - Hollow Lane	648	162	828	1383	0.469	648	647	0.9	0.9	4.906	A

2032 WD, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	5.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2032 WD	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1030	100.000
2 - B3349 Hyde End Road		FLAT	✓	567	100.000
3 - Shinfield West		FLAT	✓	254	100.000
4 - Hollow Lane		FLAT	✓	555	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	465	157	408
	2 - B3349 Hyde End Road	187	0	53	327
	3 - Shinfield West	78	46	0	130
	4 - Hollow Lane	306	155	94	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	0	1	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	0	0	0
	4 - Hollow Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.65	6.59	1.9	A	1030	1030
2 - B3349 Hyde End Road	0.46	5.32	0.8	A	567	567
3 - Shinfield West	0.29	5.72	0.4	A	254	254
4 - Hollow Lane	0.32	3.00	0.5	A	555	555

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1030	258	294	1578	0.653	1023	568	0.0	1.8	6.409	A
2 - B3349 Hyde End Road	567	142	655	1247	0.455	564	662	0.0	0.8	5.251	A
3 - Shinfield West	254	64	916	889	0.286	252	302	0.0	0.4	5.659	A
4 - Hollow Lane	555	139	309	1758	0.316	553	859	0.0	0.5	2.988	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1030	258	295	1577	0.653	1030	571	1.8	1.9	6.583	A
2 - B3349 Hyde End Road	567	142	659	1244	0.456	567	666	0.8	0.8	5.323	A
3 - Shinfield West	254	64	922	885	0.287	254	304	0.4	0.4	5.716	A
4 - Hollow Lane	555	139	311	1756	0.316	555	865	0.5	0.5	2.998	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1030	258	295	1577	0.653	1030	571	1.9	1.9	6.585	A
2 - B3349 Hyde End Road	567	142	659	1244	0.456	567	666	0.8	0.8	5.323	A
3 - Shinfield West	254	64	922	885	0.287	254	304	0.4	0.4	5.717	A
4 - Hollow Lane	555	139	311	1756	0.316	555	865	0.5	0.5	2.998	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1030	258	295	1577	0.653	1030	571	1.9	1.9	6.585	A
2 - B3349 Hyde End Road	567	142	659	1244	0.456	567	666	0.8	0.8	5.323	A
3 - Shinfield West	254	64	922	885	0.287	254	304	0.4	0.4	5.717	A
4 - Hollow Lane	555	139	311	1756	0.316	555	865	0.5	0.5	2.998	A



Appendix S - 2032 Capacity Analysis: Arborfield Road / ERR Roundabout

Junctions 10						
ARCADY 10 - Roundabout Module						
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023						
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Filename: Arborfield Road.ERR - Aug24 Dims.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\7. Arborfield Road Eastern Relief Road Roundabout\Capacity Assessment File

Report generation date: 09/04/2025 10:49:04

»2032 Base, AM

»2032 Base, PM

»2032 WD, AM

»2032 WD, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2032 Base						
1 - Arborfield Road (E)	3.0	8.66	0.75	11.9	32.78	0.93
2 - Arborfield (W)	5.9	23.83	0.86	0.9	5.88	0.48
3 - ERR	1.8	6.74	0.63	44.7	113.24	1.01
2032 WD						
1 - Arborfield Road (E)	3.1	8.81	0.75	13.7	37.79	0.94
2 - Arborfield (W)	6.6	26.21	0.88	0.9	5.90	0.48
3 - ERR	1.8	6.85	0.64	53.0	131.74	1.02

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Arborfield Road ERR Roundabout
Location	Shinfield
Site number	HD068
Date	01/01/2025
Version	
Status	Existing
Identifier	
Client	
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 Base	AM	FLAT	08:00	09:00	60	15	✓
D4	2032 Base	PM	FLAT	17:00	18:00	60	15	✓
D5	2032 WD	AM	FLAT	08:00	09:00	60	15	✓
D6	2032 WD	PM	FLAT	17:00	18:00	60	15	✓
D7	2038 Base	AM	FLAT	08:00	09:00	60	15	
D8	2038 Base	PM	FLAT	17:00	18:00	60	15	
D9	2038 WD	AM	FLAT	08:00	09:00	60	15	
D10	2038 WD	PM	FLAT	17:00	18:00	60	15	

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	12.55	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.55	B

Arms

Arms

Arm	Name	Description	No give-way line
1	Arborfield Road (E)		
2	Arborfield (W)		
3	ERR		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Arborfield Road (E)	3.52	7.39	15.0	44.0	35.0	29.0		
2 - Arborfield (W)	3.64	6.76	12.8	22.0	35.0	17.0		
3 - ERR	3.71	6.89	9.9	35.0	35.0	7.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Arborfield Road (E)	0.673	1761
2 - Arborfield (W)	0.670	1715
3 - ERR	0.695	1760

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 Base	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1274	100.000
2 - Arborfield (W)		FLAT	✓	929	100.000
3 - ERR		FLAT	✓	951	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	323	951
	2 - Arborfield (W)	367	0	562
	3 - ERR	872	79	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	0	6
	2 - Arborfield (W)	0	0	0
	3 - ERR	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.75	8.66	3.0	A	1274	1274
2 - Arborfield (W)	0.86	23.83	5.9	C	929	929
3 - ERR	0.63	6.74	1.8	A	951	951

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1274	319	78	1708	0.746	1262	1224	0.0	3.0	8.227	A
2 - Arborfield (W)	929	232	942	1084	0.857	908	398	0.0	5.2	18.756	C
3 - ERR	951	238	359	1510	0.630	944	1492	0.0	1.7	6.513	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1274	319	79	1708	0.746	1274	1238	3.0	3.0	8.653	A
2 - Arborfield (W)	929	232	951	1078	0.862	927	402	5.2	5.7	23.207	C
3 - ERR	951	238	366	1505	0.632	951	1512	1.7	1.8	6.729	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1274	319	79	1708	0.746	1274	1239	3.0	3.0	8.659	A
2 - Arborfield (W)	929	232	951	1078	0.862	928	402	5.7	5.9	23.660	C
3 - ERR	951	238	367	1505	0.632	951	1513	1.8	1.8	6.736	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1274	319	79	1708	0.746	1274	1239	3.0	3.0	8.663	A
2 - Arborfield (W)	929	232	951	1078	0.862	929	402	5.9	5.9	23.826	C
3 - ERR	951	238	367	1505	0.632	951	1513	1.8	1.8	6.737	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	62.38	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	62.38	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2032 Base	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1377	100.000
2 - Arborfield (W)		FLAT	✓	562	100.000
3 - ERR		FLAT	✓	1426	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	569	808
	2 - Arborfield (W)	500	0	62
	3 - ERR	1003	423	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	1	4
	2 - Arborfield (W)	0	0	0
	3 - ERR	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.93	32.78	11.9	D	1377	1377
2 - Arborfield (W)	0.48	5.88	0.9	A	562	562
3 - ERR	1.01	113.24	44.7	F	1426	1426

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1377	344	399	1492	0.923	1341	1444	0.0	9.1	20.977	C
2 - Arborfield (W)	562	141	787	1188	0.473	558	953	0.0	0.9	5.687	A
3 - ERR	1426	357	497	1415	1.008	1346	848	0.0	20.0	37.338	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1377	344	411	1484	0.928	1371	1475	9.1	10.7	29.802	D
2 - Arborfield (W)	562	141	804	1176	0.478	562	978	0.9	0.9	5.861	A
3 - ERR	1426	357	500	1412	1.010	1387	866	20.0	29.7	73.608	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1377	344	414	1482	0.929	1374	1481	10.7	11.4	31.779	D
2 - Arborfield (W)	562	141	806	1175	0.478	562	981	0.9	0.9	5.873	A
3 - ERR	1426	357	500	1412	1.010	1394	868	29.7	37.7	94.960	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1377	344	415	1482	0.929	1375	1483	11.4	11.9	32.781	D
2 - Arborfield (W)	562	141	807	1174	0.479	562	983	0.9	0.9	5.878	A
3 - ERR	1426	357	500	1412	1.010	1398	869	37.7	44.7	113.238	F

2032 WD, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	13.39	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.39	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2032 WD	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1280	100.000
2 - Arborfield (W)		FLAT	✓	944	100.000
3 - ERR		FLAT	✓	952	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	330	950
	2 - Arborfield (W)	379	0	565
	3 - ERR	871	81	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	0	6
	2 - Arborfield (W)	0	0	0
	3 - ERR	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.75	8.81	3.1	A	1280	1280
2 - Arborfield (W)	0.88	26.21	6.6	D	944	944
3 - ERR	0.64	6.85	1.8	A	952	952

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1280	320	80	1707	0.750	1268	1235	0.0	3.0	8.351	A
2 - Arborfield (W)	944	236	941	1085	0.870	921	407	0.0	5.6	19.937	C
3 - ERR	952	238	370	1503	0.634	945	1493	0.0	1.8	6.610	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1280	320	81	1706	0.750	1280	1249	3.0	3.1	8.798	A
2 - Arborfield (W)	944	236	950	1079	0.875	942	411	5.6	6.3	25.326	D
3 - ERR	952	238	378	1497	0.636	952	1513	1.8	1.8	6.842	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1280	320	81	1706	0.750	1280	1250	3.1	3.1	8.806	A
2 - Arborfield (W)	944	236	950	1079	0.875	943	411	6.3	6.5	25.965	D
3 - ERR	952	238	379	1497	0.636	952	1514	1.8	1.8	6.850	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1280	320	81	1706	0.750	1280	1250	3.1	3.1	8.810	A
2 - Arborfield (W)	944	236	950	1079	0.875	944	411	6.5	6.6	26.209	D
3 - ERR	952	238	379	1497	0.636	952	1515	1.8	1.8	6.851	A

2032 WD, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	72.22	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	72.22	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2032 WD	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1379	100.000
2 - Arborfield (W)		FLAT	✓	572	100.000
3 - ERR		FLAT	✓	1435	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	582	797
	2 - Arborfield (W)	506	0	66
	3 - ERR	986	449	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	1	4
	2 - Arborfield (W)	0	0	0
	3 - ERR	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.94	37.79	13.7	E	1379	1379
2 - Arborfield (W)	0.48	5.90	0.9	A	572	572
3 - ERR	1.02	131.74	53.0	F	1435	1435

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1379	345	422	1477	0.934	1339	1429	0.0	10.0	22.575	C
2 - Arborfield (W)	572	143	774	1196	0.478	568	987	0.0	0.9	5.701	A
3 - ERR	1435	359	503	1410	1.017	1348	840	0.0	21.8	39.742	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1379	345	434	1468	0.939	1371	1459	10.0	12.0	33.442	D
2 - Arborfield (W)	572	143	792	1184	0.483	572	1013	0.9	0.9	5.880	A
3 - ERR	1435	359	506	1408	1.019	1388	858	21.8	33.6	81.261	F

17:30 - 17:45

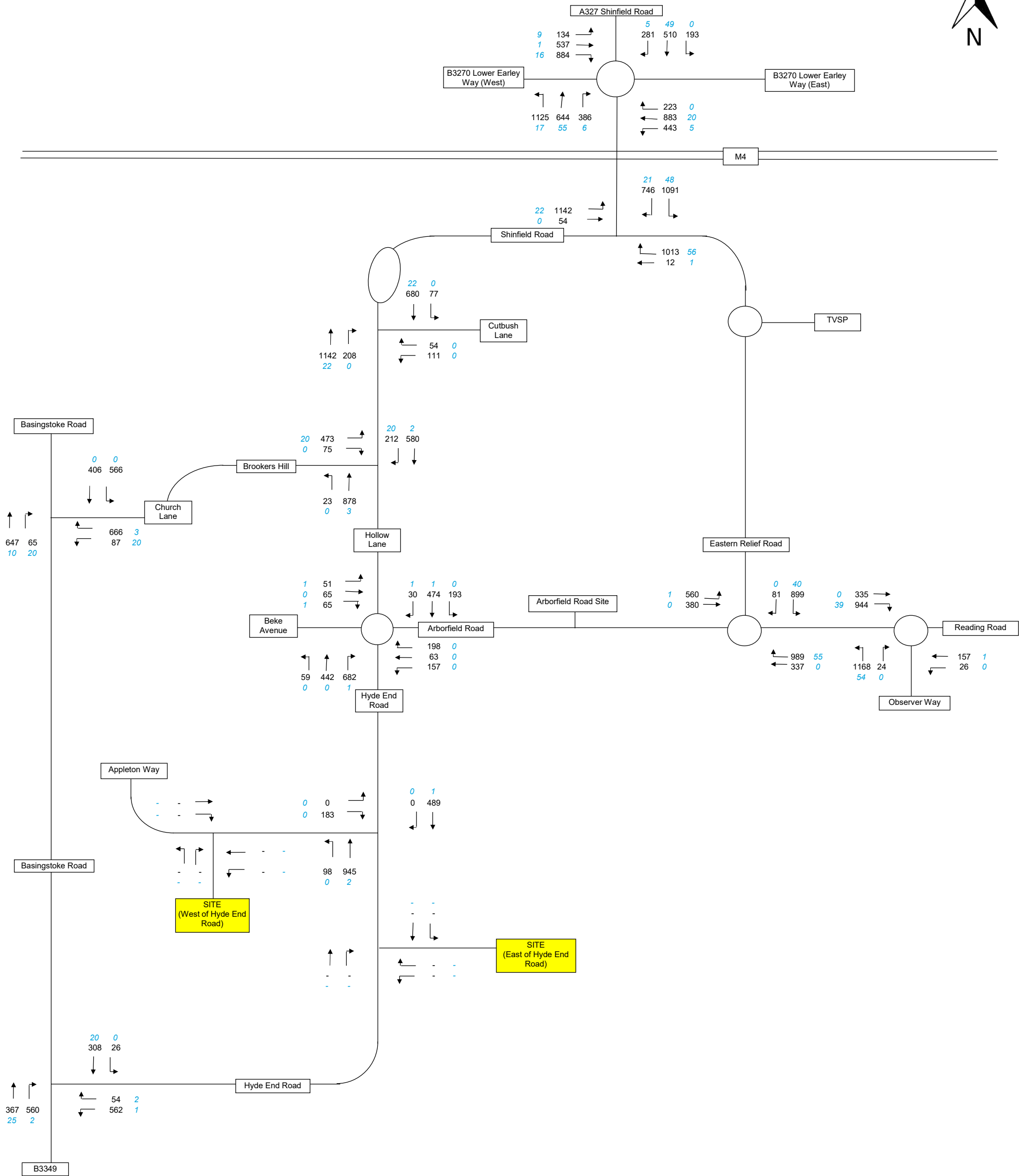
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1379	345	436	1467	0.940	1375	1464	12.0	13.1	36.273	E
2 - Arborfield (W)	572	143	795	1183	0.484	572	1017	0.9	0.9	5.895	A
3 - ERR	1435	359	506	1408	1.019	1395	861	33.6	43.7	107.897	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1379	345	437	1466	0.940	1376	1467	13.1	13.7	37.791	E
2 - Arborfield (W)	572	143	796	1182	0.484	572	1018	0.9	0.9	5.901	A
3 - ERR	1435	359	506	1408	1.019	1398	862	43.7	53.0	131.740	F



Appendix T - 2038 WSTM Traffic Flow Outputs

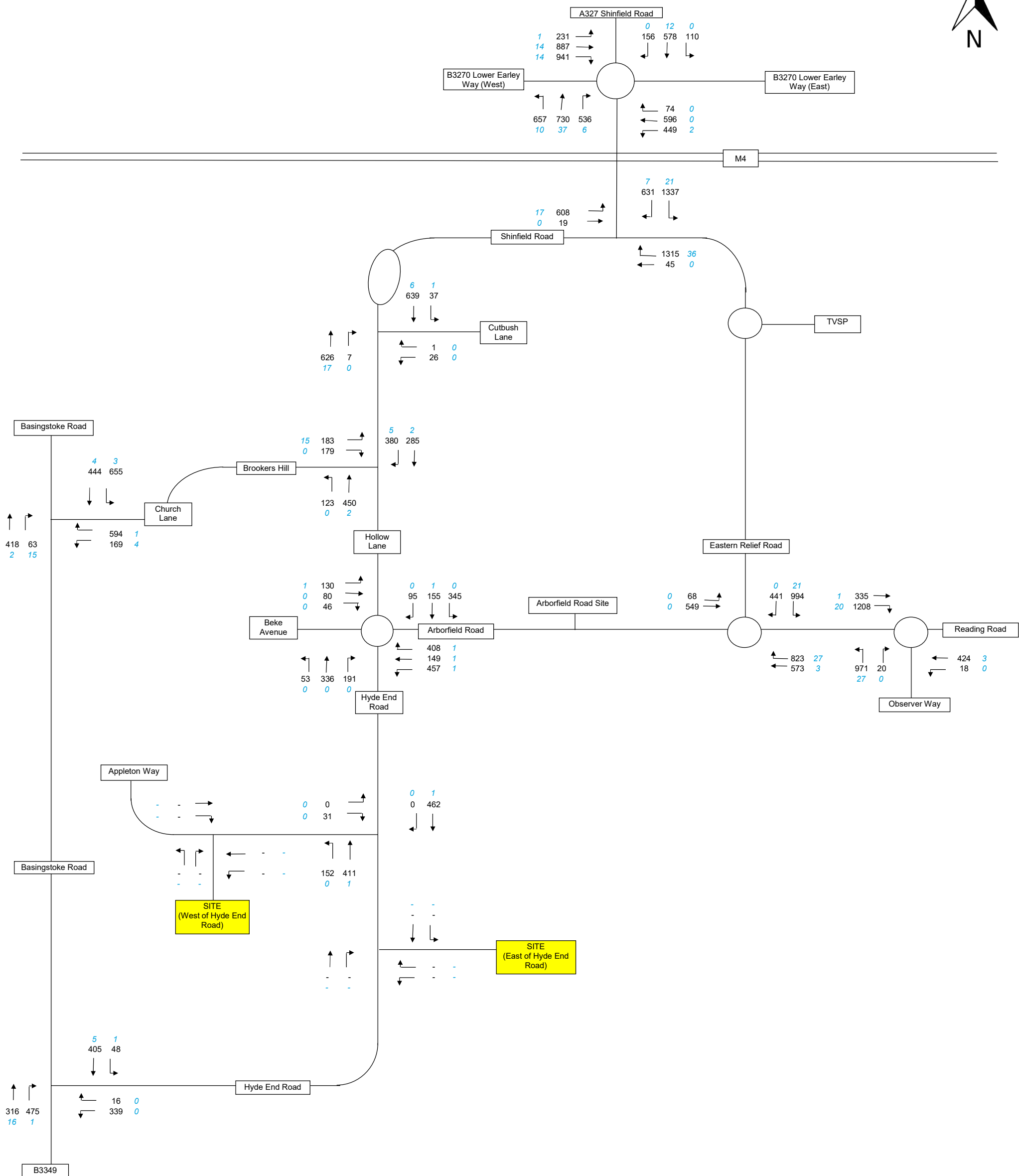


NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No HD068	Project : Hyde End Road, Shinfield
Date April 25	Title : WSTM Flows 2038 FB AM Peak Hour
Drawn AG	Figure No : TM-5

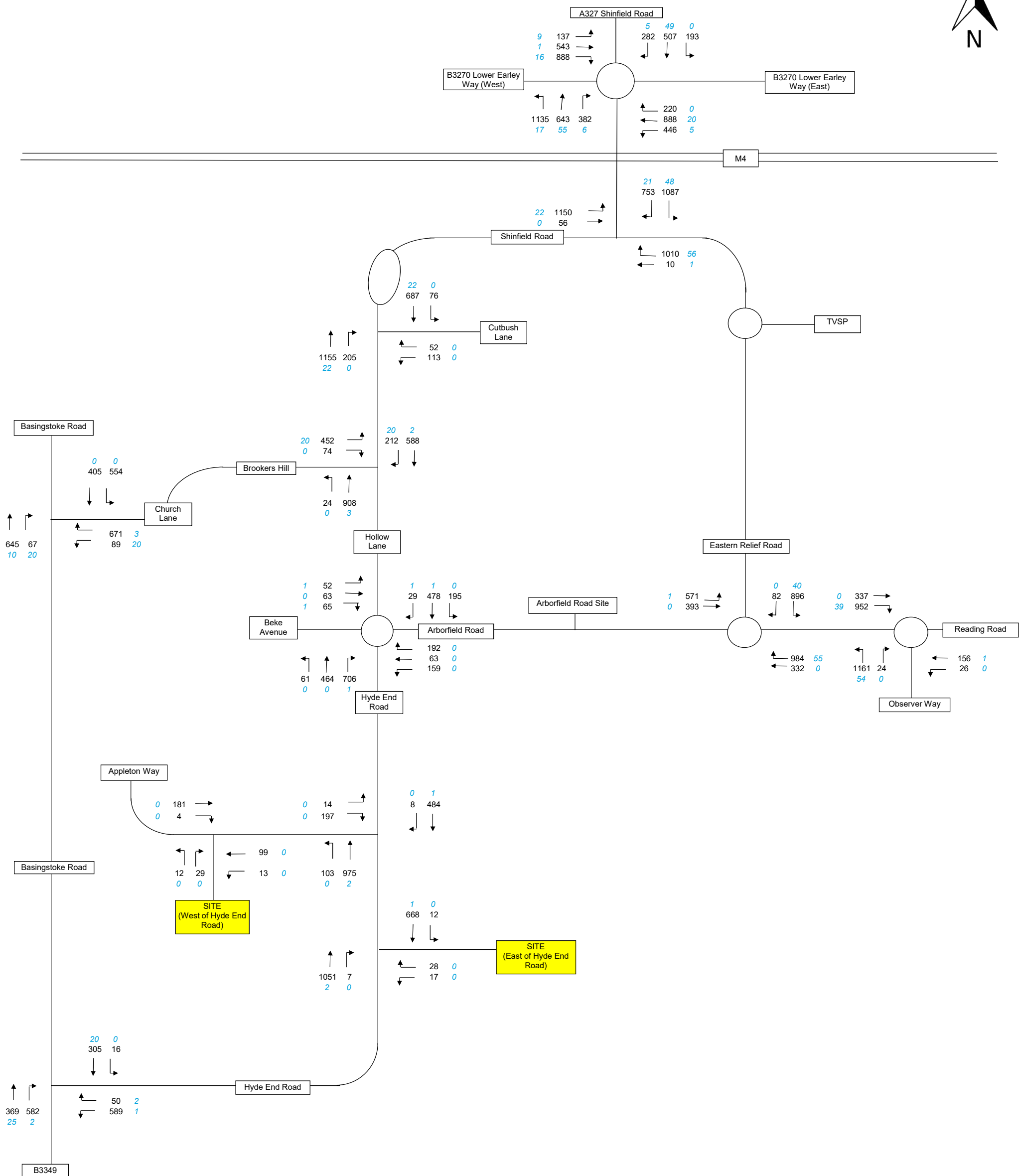


NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No HD068	Project : Hyde End Road, Shinfield
Date April 25	Title : WSTM Flows 2038 FB PM Peak Hour
Drawn AG	Figure No : TM-6

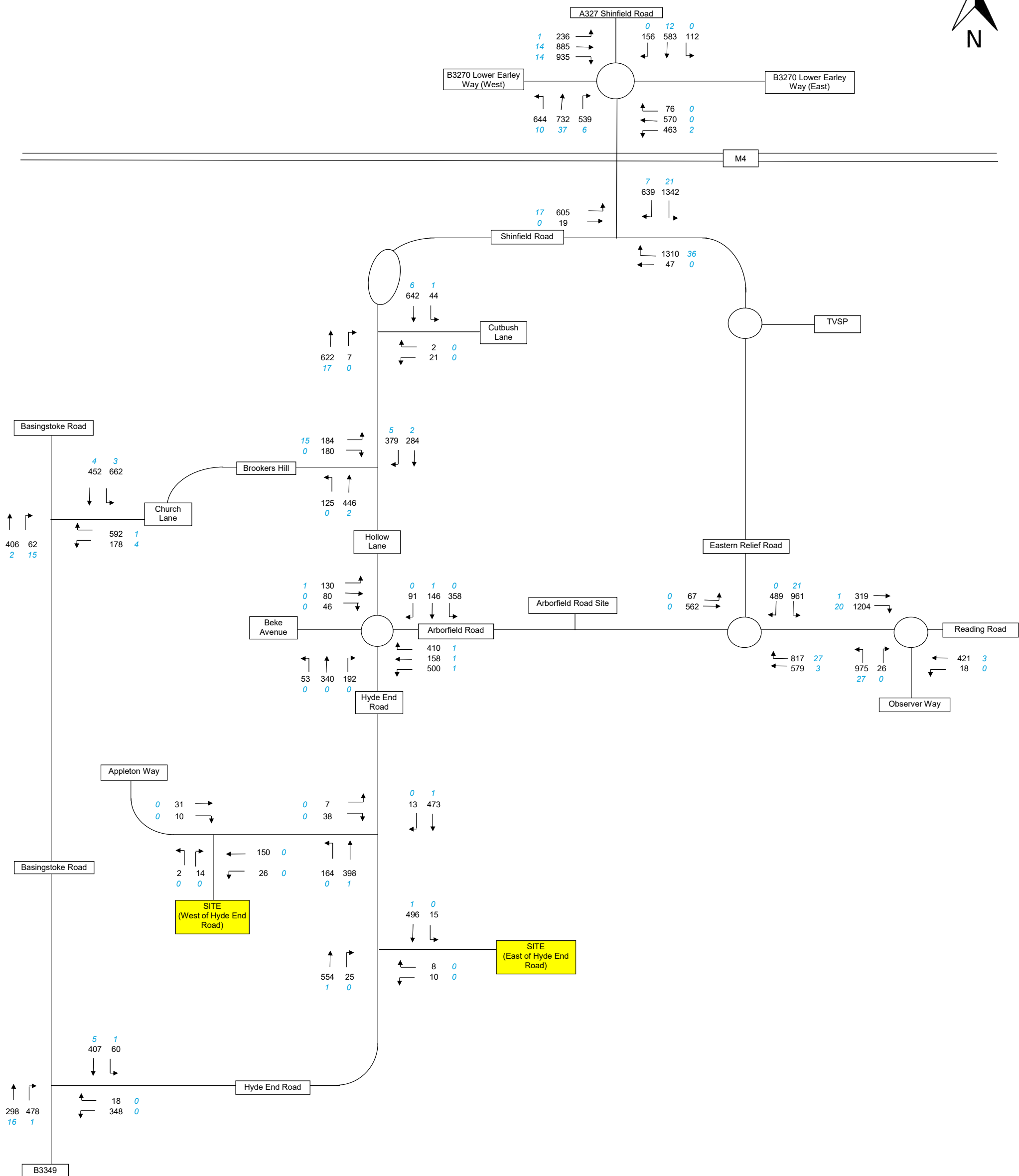


NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No HD068	Project : Hyde End Road, Shinfield
Date April 25	Title : WSTM Flows 2038 WD AM Peak Hour
Drawn AG	Figure No : TM-7



NOTE

- 0 - Total Vehicles
- 0 - HGVs



Job No HD068	Project : Hyde End Road, Shinfield
Date April 25	Title : WSTM Flows 2038 WD PM Peak Hour
Drawn AG	Figure No : TM-8



Appendix U - 2038 Junction Capacity Analysis

Junctions 10						
PICADY 10 - Priority Intersection Module						
Version: 10.1.0.1820						
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Filename: Site Access Appleton Way.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\1. Site Access Appleton Way priority junction\Capacity Assessment File

Report generation date: 09/04/2025 11:18:48

»2038 + Development, AM

»2038 + Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2038 + Development						
Stream B-C	0.0	5.00	0.02	0.0	5.01	0.00
Stream B-A	0.1	6.97	0.05	0.0	6.67	0.03
Stream C-AB	0.0	4.97	0.01	0.0	5.96	0.02

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hyde End Road
Location	Shinfield
Site number	HD068
Date	08/04/2025
Version	
Status	Proposed
Identifier	
Client	Bloor Homes
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 + Development	AM	FLAT	08:00	09:00	60	15	
D2	2032 + Development	PM	FLAT	17:00	18:00	60	15	
D3	2038 + Development	AM	FLAT	08:00	09:00	60	15	✓
D4	2038 + Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2038 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Appleton Way (W) - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Appleton Way (W) - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.85	A

Arms

Arms

Arm	Name	Description	Arm type
A	Appleton Way (E)		Major
B	Appleton Way (W)		Minor
C	Site Access		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Site Access	6.06			110.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Appleton Way (W)	One lane plus flare	9.04	3.38	2.75	2.75	2.75	✓	1.00	150	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	608	0.110	0.279	0.175	0.398
B-C	772	0.118	0.299	-	-
C-B	638	0.246	0.246	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2038 + Development	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Appleton Way (E)		FLAT	✓	112	100.000
B - Appleton Way (W)		FLAT	✓	41	100.000
C - Site Access		FLAT	✓	185	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
From	A - Appleton Way (E)	0	13	99
	B - Appleton Way (W)	29	0	12
	C - Site Access	181	4	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
From	A - Appleton Way (E)	0	0	0
	B - Appleton Way (W)	0	0	0
	C - Site Access	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.02	5.00	0.0	A	12	12
B-A	0.05	6.97	0.1	A	29	29
C-AB	0.01	4.97	0.0	A	5	5
C-A					180	180
A-B					13	13
A-C					99	99

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	12	3	731	0.016	12	0.0	0.0	5.004	A
B-A	29	7	546	0.053	29	0.0	0.1	6.963	A
C-AB	5	1	730	0.007	5	0.0	0.0	4.969	A
C-A	180	45			180				
A-B	13	3			13				
A-C	99	25			99				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	12	3	731	0.016	12	0.0	0.0	5.005	A
B-A	29	7	545	0.053	29	0.1	0.1	6.969	A
C-AB	5	1	730	0.007	5	0.0	0.0	4.969	A
C-A	180	45			180				
A-B	13	3			13				
A-C	99	25			99				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	12	3	731	0.016	12	0.0	0.0	5.005	A
B-A	29	7	545	0.053	29	0.1	0.1	6.969	A
C-AB	5	1	730	0.007	5	0.0	0.0	4.971	A
C-A	180	45			180				
A-B	13	3			13				
A-C	99	25			99				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	12	3	731	0.016	12	0.0	0.0	5.005	A
B-A	29	7	545	0.053	29	0.1	0.1	6.969	A
C-AB	5	1	730	0.007	5	0.0	0.0	4.969	A
C-A	180	45			180				
A-B	13	3			13				
A-C	99	25			99				

2038 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Appleton Way (W) - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Appleton Way (W) - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2038 + Development	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Appleton Way (E)		FLAT	✓	176	100.000
B - Appleton Way (W)		FLAT	✓	16	100.000
C - Site Access		FLAT	✓	41	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
	A - Appleton Way (E)	0	26	150
	B - Appleton Way (W)	14	0	2
	C - Site Access	31	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To			
		A - Appleton Way (E)	B - Appleton Way (W)	C - Site Access
	A - Appleton Way (E)	0	0	0
	B - Appleton Way (W)	0	0	0
	C - Site Access	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	5.01	0.0	A	2	2
B-A	0.03	6.67	0.0	A	14	14
C-AB	0.02	5.96	0.0	A	11	11
C-A					30	30
AB					26	26
AC					150	150

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	554	0.025	14	0.0	0.0	6.668	A
C-AB	11	3	615	0.017	10	0.0	0.0	5.954	A
C-A	30	8			30				
AB	26	7			26				
AC	150	38			150				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	554	0.025	14	0.0	0.0	6.668	A
C-AB	11	3	615	0.017	11	0.0	0.0	5.956	A
C-A	30	8			30				
AB	26	7			26				
AC	150	38			150				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	554	0.025	14	0.0	0.0	6.668	A
C-AB	11	3	615	0.017	11	0.0	0.0	5.954	A
C-A	30	8			30				
AB	26	7			26				
AC	150	38			150				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.50	720	0.003	2	0.0	0.0	5.014	A
B-A	14	4	554	0.025	14	0.0	0.0	6.668	A
C-AB	11	3	615	0.017	11	0.0	0.0	5.956	A
C-A	30	8			30				
AB	26	7			26				
AC	150	38			150				

Junctions 10						
PICADY 10 - Priority Intersection Module						
Version: 10.1.0.1820						
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Filename: SANG & Site Access with Hyde End Road.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\2. SANG & Site Access Hyde End Road priority junction\Capacity Assessment File

Report generation date: 09/04/2025 11:20:38

»2038 With Development, AM

»2038 With Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2038 With Development						
Stream B-C	0.1	8.52	0.05	0.0	6.85	0.03
Stream B-A	0.2	23.07	0.17	0.0	12.64	0.04
Stream C-AB	0.1	3.05	0.06	0.2	4.25	0.08

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hyde End Road
Location	Shinfield
Site number	HD068
Date	14/01/2025
Version	
Status	Proposed
Identifier	
Client	
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 With Development	AM	FLAT	08:00	09:00	60	15	
D2	2032 With Development	PM	FLAT	17:00	18:00	60	15	
D3	2038 With Development	AM	FLAT	08:00	09:00	60	15	✓
D4	2038 With Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2038 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Hyde End Road (S) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Hyde End Road Access	T-Junction	Two-way	Two-way	Two-way		0.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.65	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hyde End Road (N)		Major
B	Site Access		Minor
C	Hyde End Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hyde End Road (S)	5.30			170.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane plus flare	7.57	3.80	3.79	3.50	3.30	✓	1.00	14	24

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	533	0.101	0.254	0.160	0.363
B-C	641	0.101	0.255	-	-
C-B	672	0.268	0.268	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2038 With Development	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (N)		FLAT	✓	685	100.000
B - Site Access		FLAT	✓	55	100.000
C - Hyde End Road (S)		FLAT	✓	1063	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
	A - Hyde End Road (N)	0	17	668
	B - Site Access	33	0	22
	C - Hyde End Road (S)	1051	12	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
	A - Hyde End Road (N)	0	0	0
	B - Site Access	0	0	0
	C - Hyde End Road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.05	8.52	0.1	A	22	22
B-A	0.17	23.07	0.2	C	33	33
C-AB	0.06	3.05	0.1	A	74	74
C-A					989	989
A-B					17	17
A-C					668	668

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	447	0.049	22	0.0	0.1	8.473	A
B-A	33	8	189	0.175	32	0.0	0.2	22.842	C
C-AB	74	19	1254	0.059	74	0.0	0.1	3.049	A
C-A	989	247			989				
A-B	17	4			17				
A-C	668	167			668				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	445	0.049	22	0.1	0.1	8.518	A
B-A	33	8	189	0.175	33	0.2	0.2	23.064	C
C-AB	74	19	1255	0.059	74	0.1	0.1	3.052	A
C-A	989	247			989				
A-B	17	4			17				
A-C	668	167			668				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	445	0.049	22	0.1	0.1	8.518	A
B-A	33	8	189	0.175	33	0.2	0.2	23.069	C
C-AB	74	19	1255	0.059	74	0.1	0.1	3.050	A
C-A	989	247			989				
A-B	17	4			17				
A-C	668	167			668				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	6	445	0.049	22	0.1	0.1	8.518	A
B-A	33	8	189	0.175	33	0.2	0.2	23.069	C
C-AB	74	19	1255	0.059	74	0.1	0.1	3.052	A
C-A	989	247			989				
A-B	17	4			17				
A-C	668	167			668				

2038 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Hyde End Road (S) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Hyde End Road Access	T-Junction	Two-way	Two-way	Two-way		0.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.52	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2038 With Development	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (N)		FLAT	✓	516	100.000
B - Site Access		FLAT	✓	28	100.000
C - Hyde End Road (S)		FLAT	✓	584	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
From	A - Hyde End Road (N)	0	20	496
	B - Site Access	13	0	15
	C - Hyde End Road (S)	554	30	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To			
		A - Hyde End Road (N)	B - Site Access	C - Hyde End Road (S)
	A - Hyde End Road (N)	0	0	0
	B - Site Access	0	0	0
	C - Hyde End Road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.03	6.85	0.0	A	15	15
B-A	0.04	12.64	0.0	B	13	13
C-AB	0.08	4.25	0.2	A	75	75
C-A					509	509
A-B					20	20
A-C					496	496

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	540	0.028	15	0.0	0.0	6.848	A
B-A	13	3	298	0.044	13	0.0	0.0	12.630	B
C-AB	75	19	924	0.081	74	0.0	0.2	4.238	A
C-A	509	127			509				
A-B	20	5			20				
A-C	496	124			496				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	540	0.028	15	0.0	0.0	6.853	A
B-A	13	3	298	0.044	13	0.0	0.0	12.637	B
C-AB	75	19	924	0.082	75	0.2	0.2	4.246	A
C-A	509	127			509				
A-B	20	5			20				
A-C	496	124			496				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	540	0.028	15	0.0	0.0	6.853	A
B-A	13	3	298	0.044	13	0.0	0.0	12.637	B
C-AB	75	19	924	0.082	75	0.2	0.2	4.245	A
C-A	509	127			509				
A-B	20	5			20				
A-C	496	124			496				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	15	4	540	0.028	15	0.0	0.0	6.853	A
B-A	13	3	298	0.044	13	0.0	0.0	12.637	B
C-AB	75	19	924	0.082	75	0.2	0.2	4.246	A
C-A	509	127			509				
A-B	20	5			20				
A-C	496	124			496				

Junctions 10		
PICADY 10 - Priority Intersection Module		
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023		
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Filename: Appleton Way Hyde End Road - v2.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\3. Appleton Way Hyde End Road priority junction\Capacity Assessment File

Report generation date: 11/04/2025 14:36:56

»2038, AM

»2038, PM

»2038 + Development, AM

»2038 + Development, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2038						
Stream B-C	0.0	0.00	0.00	0.0	0.00	0.00
Stream B-A	2.0	40.24	0.67	0.1	9.00	0.07
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
2038 + Development						
Stream B-C	0.1	23.50	0.08	0.0	6.66	0.01
Stream B-A	3.0	56.52	0.76	0.1	9.28	0.09
Stream C-AB	0.0	9.27	0.02	0.0	6.95	0.02

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hyde End Road
Location	Shinfield
Site number	HD068
Date	08/04/2025
Version	
Status	Existing
Identifier	
Client	Bloor Homes
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032	AM	FLAT	08:00	09:00	60	15	
D2	2032	PM	FLAT	17:00	18:00	60	15	
D3	2032 + Development	AM	FLAT	08:00	09:00	60	15	
D4	2032 + Development	PM	FLAT	17:00	18:00	60	15	
D5	2038	AM	FLAT	08:00	09:00	60	15	✓
D6	2038	PM	FLAT	17:00	18:00	60	15	✓
D7	2038 + Development	AM	FLAT	08:00	09:00	60	15	✓
D8	2038 + Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2038, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		4.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.29	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hyde End Road (S)		Major
B	Appleton Way		Minor
C	Hyde End Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hyde End Road (N)	6.10		✓	2.20	180.0	✓	4.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Appleton Way	One lane plus flare	10.00	6.44	4.30	3.42	3.20	✓	1.00	230	71

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	660	0.119	0.300	0.189	0.429
B-C	683	0.105	0.266	-	-
C-B	678	0.262	0.262	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2038	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	1043	100.000
B - Appleton Way		FLAT	✓	183	100.000
C - Hyde End Road (N)		FLAT	✓	489	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	98	945
	B - Appleton Way	183	0	0
	C - Hyde End Road (N)	489	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.67	40.24	2.0	E	183	183
C-AB	0.00	0.00	0.0	A	0	0
C-A					489	489
A-B					98	98
A-C					945	945

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	351	0.000	0	0.0	0.0	0.000	A
B-A	183	46	272	0.673	176	0.0	1.8	35.228	E
C-AB	0	0	811	0.000	0	0.0	0.0	0.000	A
C-A	489	122			489				
A-B	98	25			98				
A-C	945	236			945				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	348	0.000	0	0.0	0.0	0.000	A
B-A	183	46	272	0.673	183	1.8	1.9	39.837	E
C-AB	0	0	811	0.000	0	0.0	0.0	0.000	A
C-A	489	122			489				
A-B	98	25			98				
A-C	945	236			945				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	348	0.000	0	0.0	0.0	0.000	A
B-A	183	46	272	0.673	183	1.9	2.0	40.131	E
C-AB	0	0	811	0.000	0	0.0	0.0	0.000	A
C-A	489	122			489				
A-B	98	25			98				
A-C	945	236			945				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	348	0.000	0	0.0	0.0	0.000	A
B-A	183	46	272	0.673	183	2.0	2.0	40.242	E
C-AB	0	0	811	0.000	0	0.0	0.0	0.000	A
C-A	489	122			489				
A-B	98	25			98				
A-C	945	236			945				

2038, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.26	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2038	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	563	100.000
B - Appleton Way		FLAT	✓	31	100.000
C - Hyde End Road (N)		FLAT	✓	462	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	152	411
	B - Appleton Way	31	0	0
	C - Hyde End Road (N)	462	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.07	9.00	0.1	A	31	31
C-AB	0.00	0.00	0.0	A	0	0
C-A					462	462
A-B					152	152
A-C					411	411

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	548	0.000	0	0.0	0.0	0.000	A
B-A	31	8	431	0.072	31	0.0	0.1	8.989	A
C-AB	0	0	1062	0.000	0	0.0	0.0	0.000	A
C-A	462	116			462				
A-B	152	38			152				
A-C	411	103			411				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	548	0.000	0	0.0	0.0	0.000	A
B-A	31	8	431	0.072	31	0.1	0.1	9.001	A
C-AB	0	0	1062	0.000	0	0.0	0.0	0.000	A
C-A	462	116			462				
A-B	152	38			152				
A-C	411	103			411				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	548	0.000	0	0.0	0.0	0.000	A
B-A	31	8	431	0.072	31	0.1	0.1	9.001	A
C-AB	0	0	1062	0.000	0	0.0	0.0	0.000	A
C-A	462	116			462				
A-B	152	38			152				
A-C	411	103			411				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	548	0.000	0	0.0	0.0	0.000	A
B-A	31	8	431	0.072	31	0.1	0.1	9.001	A
C-AB	0	0	1062	0.000	0	0.0	0.0	0.000	A
C-A	462	116			462				
A-B	152	38			152				
A-C	411	103			411				

2038 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		6.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.48	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2038 + Development	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	1078	100.000
B - Appleton Way		FLAT	✓	211	100.000
C - Hyde End Road (N)		FLAT	✓	492	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	103	975
	B - Appleton Way	197	0	14
	C - Hyde End Road (N)	484	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.08	23.50	0.1	C	14	14
B-A	0.76	56.52	3.0	F	197	197
C-AB	0.02	9.27	0.0	A	8	8
C-A					484	484
A-B					103	103
A-C					975	975

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	196	0.071	14	0.0	0.1	19.727	C
B-A	197	49	259	0.759	187	0.0	2.6	44.815	E
C-AB	8	2	396	0.020	8	0.0	0.0	9.271	A
C-A	484	121			484				
A-B	103	26			103				
A-C	975	244			975				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	171	0.082	14	0.1	0.1	22.958	C
B-A	197	49	259	0.759	196	2.6	2.8	54.924	F
C-AB	8	2	396	0.020	8	0.0	0.0	9.275	A
C-A	484	121			484				
A-B	103	26			103				
A-C	975	244			975				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	168	0.083	14	0.1	0.1	23.342	C
B-A	197	49	259	0.759	197	2.8	2.9	56.052	F
C-AB	8	2	396	0.020	8	0.0	0.0	9.275	A
C-A	484	121			484				
A-B	103	26			103				
A-C	975	244			975				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	4	167	0.084	14	0.1	0.1	23.500	C
B-A	197	49	259	0.759	197	2.9	3.0	56.524	F
C-AB	8	2	396	0.020	8	0.0	0.0	9.275	A
C-A	484	121			484				
A-B	103	26			103				
A-C	975	244			975				

2038 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Appleton Way Access	T-Junction	Two-way	Two-way	Two-way		0.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2038 + Development	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hyde End Road (S)		FLAT	✓	562	100.000
B - Appleton Way		FLAT	✓	45	100.000
C - Hyde End Road (N)		FLAT	✓	486	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	164	398
	B - Appleton Way	38	0	7
	C - Hyde End Road (N)	473	13	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Hyde End Road (S)	B - Appleton Way	C - Hyde End Road (N)
From	A - Hyde End Road (S)	0	0	0
	B - Appleton Way	0	0	0
	C - Hyde End Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	6.66	0.0	A	7	7
B-A	0.09	9.28	0.1	A	38	38
C-AB	0.02	6.95	0.0	A	13	13
C-A					473	473
A-B					164	164
A-C					398	398

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	548	0.013	7	0.0	0.0	6.658	A
B-A	38	10	426	0.089	38	0.0	0.1	9.265	A
C-AB	13	3	531	0.024	13	0.0	0.0	6.947	A
C-A	473	118			473				
A-B	164	41			164				
A-C	398	100			398				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	547	0.013	7	0.0	0.0	6.660	A
B-A	38	10	426	0.089	38	0.1	0.1	9.285	A
C-AB	13	3	531	0.024	13	0.0	0.0	6.947	A
C-A	473	118			473				
A-B	164	41			164				
A-C	398	100			398				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	547	0.013	7	0.0	0.0	6.660	A
B-A	38	10	426	0.089	38	0.1	0.1	9.285	A
C-AB	13	3	531	0.024	13	0.0	0.0	6.947	A
C-A	473	118			473				
A-B	164	41			164				
A-C	398	100			398				

17:45 - 18:00

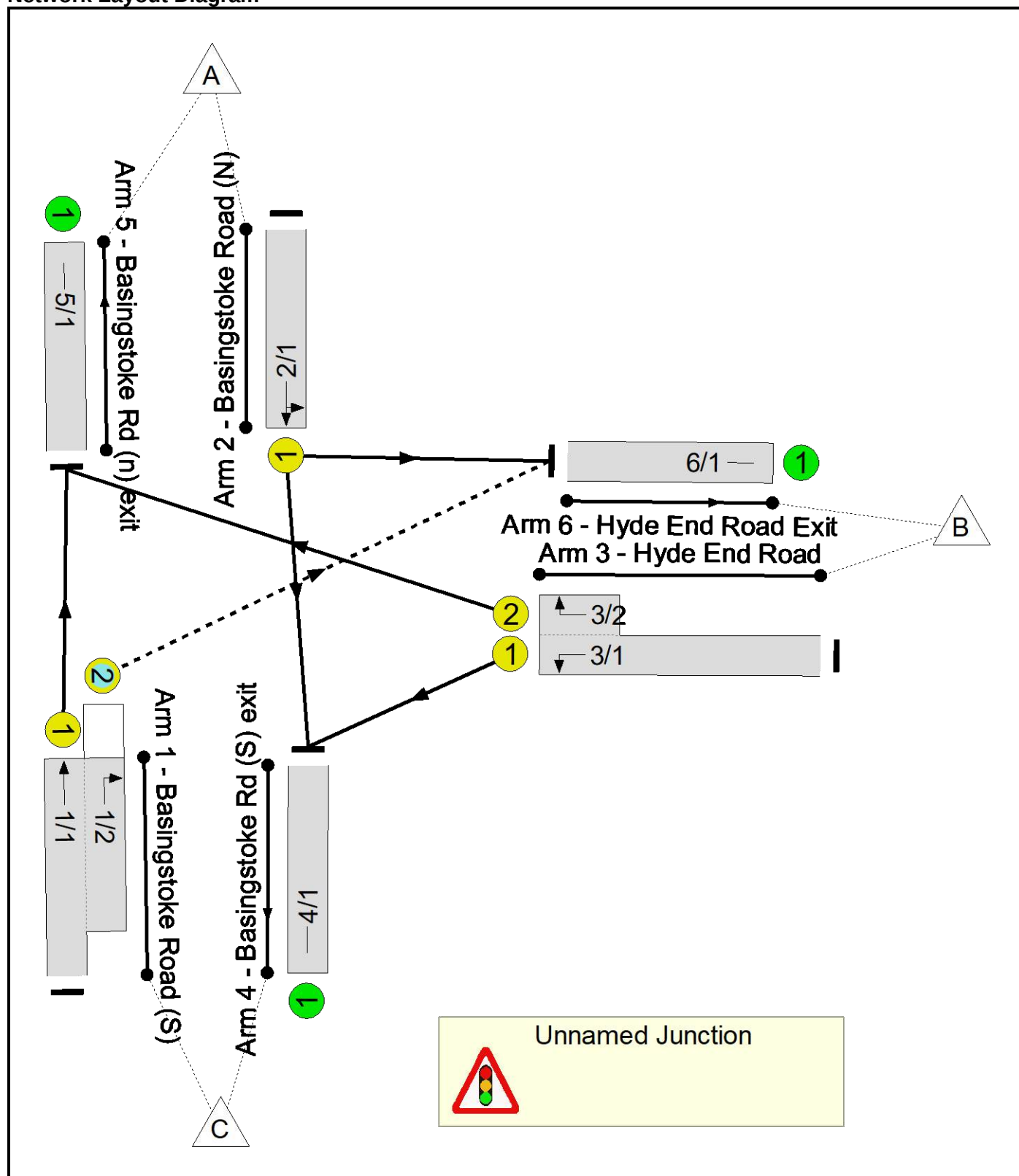
Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	7	2	547	0.013	7	0.0	0.0	6.660	A
B-A	38	10	426	0.089	38	0.1	0.1	9.285	A
C-AB	13	3	531	0.024	13	0.0	0.0	6.947	A
C-A	473	118			473				
A-B	164	41			164				
A-C	398	100			398				

Full Input Data And Results

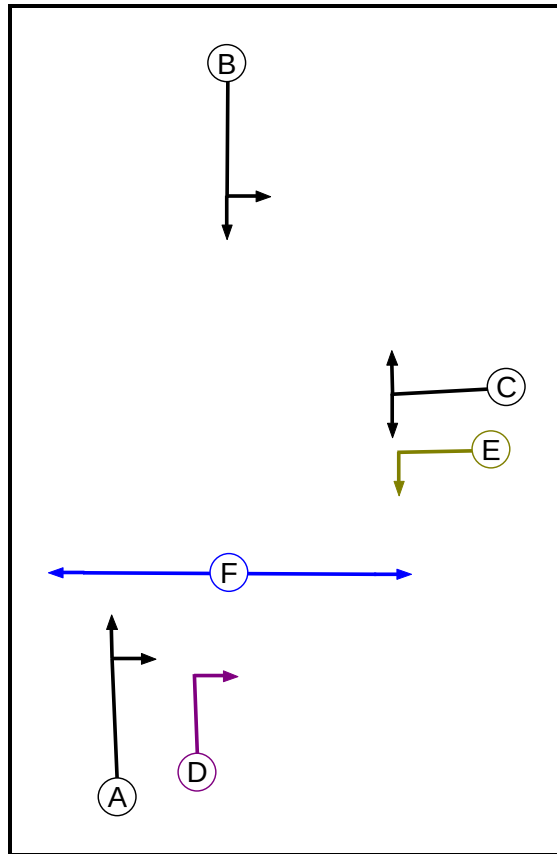
User and Project Details

Project:	
Title:	Basingstoke Road and Hyde End with Pedestrians
Location:	
Additional detail:	
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Author:	Transport
Company:	Abley Letchford
Address:	

Network Layout Diagram

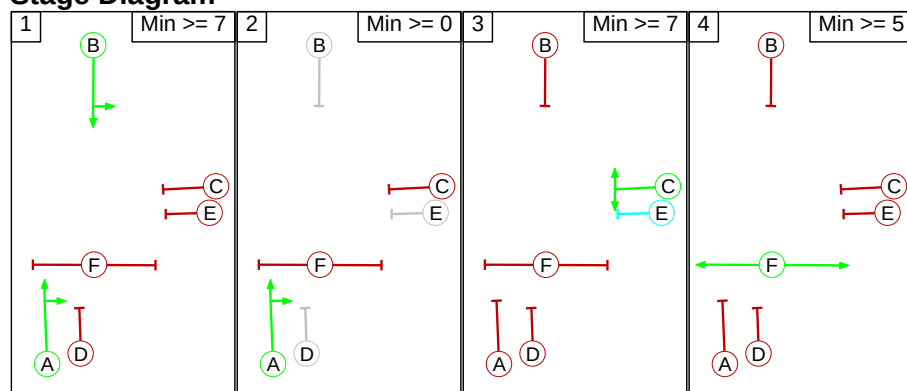


Phase Diagram



Full Input Data And Results

Stage Diagram



Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Basingstoke Road (S))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
1/2 (Basingstoke Road (S))	O	A D	2	3	8.0	Geom	-	2.70	0.00	N	Arm 6 Right	25.00
2/1 (Basingstoke Road (N))	U	B	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Left	9.00
3/1 (Hyde End Road)	U	C E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	20.00
3/2 (Hyde End Road)	U	C	2	3	3.0	Geom	-	3.00	0.00	N	Arm 5 Right	11.00
4/1 (Basingstoke Rd (S) exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Basingstoke Rd (n) exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Hyde End Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

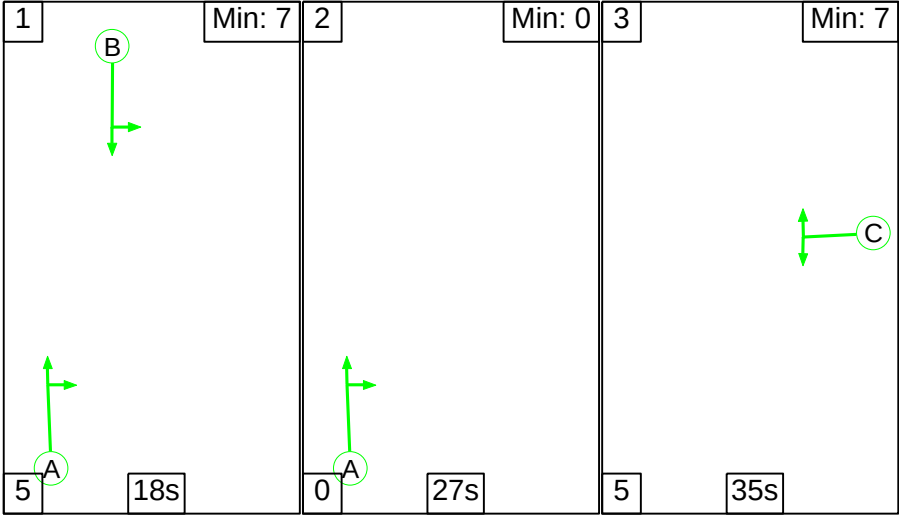
Scenario 1: '2038 Base AM' (FG1: '2038 Base AM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	26	328	354
	B	56	0	563	619
	C	392	562	0	954
	Tot.	448	588	891	1927

Stage Sequence Diagram



Network Results

Network Results																
Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	87.2%	34	515	12	22.5	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	87.2%	34	515	12	22.5	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	45	954	1915:1910	1094	87.2%	34	515	12	9.4	14.4	3.3	17.6
2/1	Basingstoke Road (N) Ahead Left	U	B	1	18	354	1951	412	85.9%	-	-	-	6.2	8.5	2.8	11.2
3/1+3/2	Hyde End Road Left Right	U	C	1	35	619	1781:1808	726	85.2%	-	-	-	6.9	13.6	2.7	16.4
4/1	Basingstoke Rd (S) exit	U	-	-	-	891	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	448	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	588	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1 PRC for Signalised Lanes (%): PRC Over All Lanes (%): 3.2 3.2 Total Delay for Signalised Lanes (pcuHr): Total Delay Over All Lanes(pcuHr): 22.49 22.49 Cycle Time (s): 90																

Full Input Data And Results

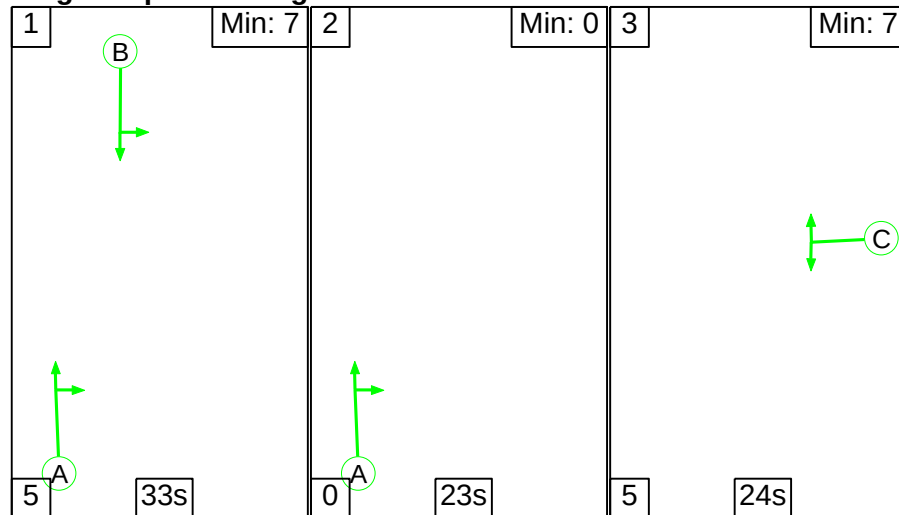
Scenario 2: '2038 Base PM' (FG2: '2038 Base PM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	49	410	459
	B	16	0	339	355
	C	332	476	0	808
	Tot.	348	525	749	1622

Stage Sequence Diagram



Network Results

Network Results																
Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	70.7%	148	317	11	13.0	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	70.7%	148	317	11	13.0	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	56	808	1915:1910	1144	70.6%	148	317	11	5.2	10.2	1.2	11.4
2/1	Basingstoke Road (N) Ahead Left	U	B	1	33	459	1940	733	62.6%	-	-	-	3.7	9.3	0.8	10.1
3/1+3/2	Hyde End Road Left Right	U	C	1	24	355	1781:1808	502	70.7%	-	-	-	4.1	7.7	1.2	8.9
4/1	Basingstoke Rd (S) exit	U	-	-	-	749	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	348	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	525	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1 PRC for Signalised Lanes (%): 27.2 PRC Over All Lanes (%): 27.2 Total Delay for Signalised Lanes (pcuHr): 12.96 Total Delay Over All Lanes(pcuHr): 12.96 Cycle Time (s): 90																

Full Input Data And Results

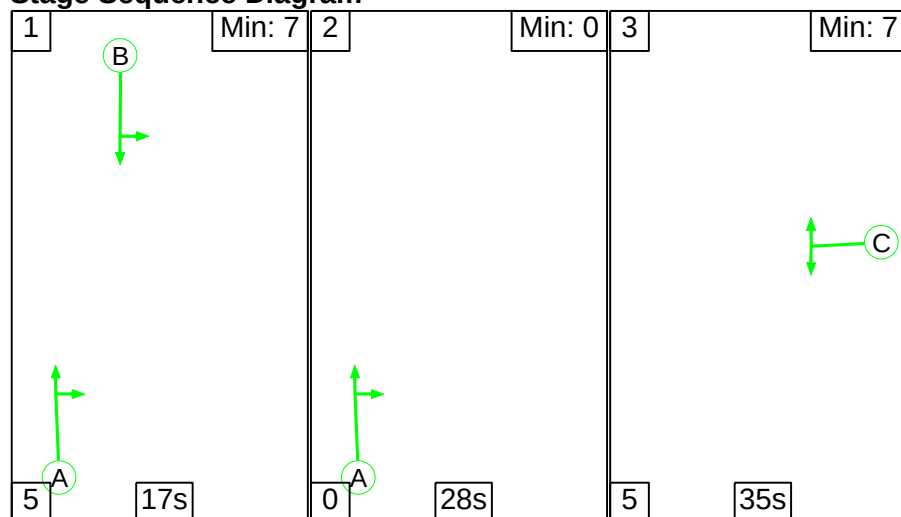
Scenario 3: '2038 with Development AM' (FG3: '2038 with Development AM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	16	325	341
	B	52	0	590	642
	C	394	584	0	978
	Tot.	446	600	915	1961

Stage Sequence Diagram



Network Results

Network Results																
Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	88.6%	29	542	13	24.2	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	88.6%	29	542	13	24.2	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	45	978	1915:1910	1107	88.3%	29	542	13	10.0	15.2	3.6	18.8
2/1	Basingstoke Road (N) Ahead Left	U	B	1	17	341	1960	392	87.0%	-	-	-	6.3	8.2	3.0	11.2
3/1+3/2	Hyde End Road Left Right	U	C	1	35	642	1781:1808	725	88.6%	-	-	-	8.0	14.5	3.6	18.1
4/1	Basingstoke Rd (S) exit	U	-	-	-	915	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	446	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	600	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):				1.6	Total Delay for Signalled Lanes (pcuHr):				24.24	Cycle Time (s): 90			
			PRC Over All Lanes (%):				1.6	Total Delay Over All Lanes(pcuHr):				24.24				

Full Input Data And Results

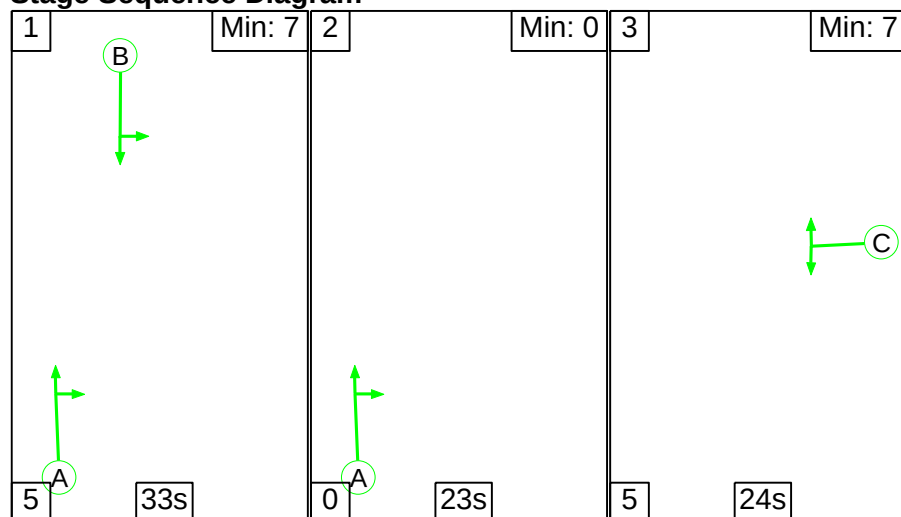
Scenario 4: '2038 with Development PM' (FG4: '2038 with Development PM', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	61	412	473
	B	18	0	348	366
	C	314	479	0	793
	Tot.	332	540	760	1632

Stage Sequence Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Num Greens	Total Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Basingstoke Road and Hyde End with Pedestrians	-	-	-	-	-	-	-	-	72.8%	141	327	11	13.5	-	-	-
Unnamed Junction	-	-	-	-	-	-	-	-	72.8%	141	327	11	13.5	-	-	-
1/1+1/2	Basingstoke Road (S) Ahead Right	U+O	A	1	56	793	1915:1910	1104	71.8%	141	327	11	5.3	10.4	1.3	11.6
2/1	Basingstoke Road (N) Ahead Left	U	B	1	33	473	1933	730	64.8%	-	-	-	3.9	9.7	0.9	10.6
3/1+3/2	Hyde End Road Left Right	U	C	1	24	366	1781:1808	502	72.8%	-	-	-	4.3	8.1	1.3	9.4
4/1	Basingstoke Rd (S) exit	U	-	-	-	760	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
5/1	Basingstoke Rd (n) exit	U	-	-	-	332	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
6/1	Hyde End Road Exit	U	-	-	-	540	Inf	Inf	0.0%	-	-	-	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 23.6 Total Delay for Signalled Lanes (pcuHr): 13.51 Cycle Time (s): 90 PRC Over All Lanes (%): 23.6 Total Delay Over All Lanes(pcuHr): 13.51																

Junctions 10			
ARCADY 10 - Roundabout Module			
Version: 10.1.0.1820			
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Filename: Church Lane Basingstoke Road Roundabout.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\5. Church Lane Basingstoke Road Junction\Capacity Assessment File

Report generation date: 09/04/2025 15:35:54

- »2038 Base, AM
- »2038 Base, PM
- »2038 With Dev, AM
- »2038 With Dev, PM

Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
2038 Base				
1 - Basingstoke Road (N)	72.1	1.07	193.6	1.21
2 - Church Lane	16.2	0.96	12.4	0.94
3 - Basingstoke Road (S)	44.8	1.05	1.8	0.65
2038 With Dev				
1 - Basingstoke Road (N)	61.8	1.05	207.6	1.22
2 - Church Lane	18.7	0.97	14.0	0.95
3 - Basingstoke Road (S)	45.6	1.05	1.7	0.63

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	09/04/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTIONS 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2032 Base	AM	FLAT	08:00	09:00	60	15	
D2	2032 Base	PM	FLAT	17:00	18:00	60	15	
D3	2032 With Dev	AM	FLAT	08:00	09:00	60	15	
D4	2032 With Dev	PM	FLAT	17:00	18:00	60	15	
D5	2038 Base	AM	FLAT	08:00	09:00	60	15	✓
D6	2038 Base	PM	FLAT	17:00	18:00	60	15	✓
D7	2038 With Dev	AM	FLAT	08:00	09:00	60	15	✓
D8	2038 With Dev	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
AL	✓	100.000	100.000

2038 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	195.28	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		195.28	F

Arms

Arms

Arm	Name	Description
1	Basingstoke Road (N)	
2	Church Lane	
3	Basingstoke Road (S)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Basingstoke Road (N)	3.60	3.60	4.90	1.0	8.40	3.80	0.0	
2 - Church Lane	3.60	3.60	6.00	7.0	11.60	9.30	0.0	
3 - Basingstoke Road (S)	4.50	3.65	4.70	23.0	15.00	15.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Basingstoke Road (N)	0.622	962
2 - Church Lane	0.658	1059
3 - Basingstoke Road (S)	0.674	1160

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2038 Base	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	972	100.000
2 - Church Lane		FLAT	✓	753	100.000
3 - Basingstoke Road (S)		FLAT	✓	712	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	566	406
	2 - Church Lane	666	0	87
	3 - Basingstoke Road (S)	647	65	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	0
	2 - Church Lane	1	0	23
	3 - Basingstoke Road (S)	2	31	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.07	263.28	72.1	F	972	972
2 - Church Lane	0.96	81.83	16.2	F	753	753
3 - Basingstoke Road (S)	1.05	225.30	44.8	F	712	712

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	972	243	60	914	1.064	877	1225	0.0	23.8	61.538	F
2 - Church Lane	753	188	366	790	0.953	715	570	0.0	9.5	37.821	E
3 - Basingstoke Road (S)	712	178	632	697	1.022	653	449	0.0	14.8	56.450	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	972	243	61	912	1.065	905	1264	23.8	40.6	140.037	F
2 - Church Lane	753	188	378	782	0.963	740	588	9.5	12.7	63.988	F
3 - Basingstoke Road (S)	712	178	655	682	1.044	670	464	14.8	25.3	122.820	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	972	243	61	912	1.066	908	1270	40.6	56.5	202.389	F
2 - Church Lane	753	188	379	781	0.964	745	590	12.7	14.8	74.711	F
3 - Basingstoke Road (S)	712	178	659	679	1.048	673	465	25.3	35.2	174.929	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	972	243	61	912	1.066	910	1273	56.5	72.1	263.284	F
2 - Church Lane	753	188	380	781	0.964	747	591	14.8	16.2	81.826	F
3 - Basingstoke Road (S)	712	178	661	678	1.050	674	466	35.2	44.8	225.298	F

2038 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	339.66	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		339.66	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2038 Base	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	1099	100.000
2 - Church Lane		FLAT	✓	763	100.000
3 - Basingstoke Road (S)		FLAT	✓	481	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	655	444
	2 - Church Lane	594	0	169
	3 - Basingstoke Road (S)	418	63	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	1
	2 - Church Lane	0	0	2
	3 - Basingstoke Road (S)	0	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.21	679.00	193.6	F	1099	1099
2 - Church Lane	0.94	61.87	12.4	F	763	763
3 - Basingstoke Road (S)	0.65	14.03	1.8	B	481	481

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1099	275	62	911	1.207	893	980	0.0	51.5	112.864	F
2 - Church Lane	763	191	361	815	0.936	729	594	0.0	8.5	33.990	D
3 - Basingstoke Road (S)	481	120	568	753	0.639	474	522	0.0	1.7	12.621	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1099	275	63	910	1.208	909	1005	51.5	98.9	306.845	F
2 - Church Lane	763	191	367	811	0.941	755	605	8.5	10.5	52.996	F
3 - Basingstoke Road (S)	481	120	588	740	0.650	481	534	1.7	1.8	13.832	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1099	275	63	910	1.208	910	1008	98.9	146.3	492.594	F
2 - Church Lane	763	191	367	811	0.941	759	605	10.5	11.7	58.665	F
3 - Basingstoke Road (S)	481	120	591	738	0.652	481	535	1.8	1.8	13.973	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1099	275	63	910	1.208	910	1010	146.3	193.6	679.005	F
2 - Church Lane	763	191	368	811	0.941	760	605	11.7	12.4	61.869	F
3 - Basingstoke Road (S)	481	120	592	737	0.652	481	536	1.8	1.8	14.026	B

2038 With Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	186.16	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		186.16	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2038 With Dev	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	959	100.000
2 - Church Lane		FLAT	✓	760	100.000
3 - Basingstoke Road (S)		FLAT	✓	712	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	554	405
	2 - Church Lane	671	0	89
	3 - Basingstoke Road (S)	645	67	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	0
	2 - Church Lane	1	0	22
	3 - Basingstoke Road (S)	2	29	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.05	228.94	61.8	F	959	959
2 - Church Lane	0.97	93.01	18.7	F	760	760
3 - Basingstoke Road (S)	1.05	229.44	45.6	F	712	712

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	959	240	61	913	1.051	873	1226	0.0	21.6	57.528	F
2 - Church Lane	760	190	368	789	0.963	719	565	0.0	10.3	39.717	E
3 - Basingstoke Road (S)	712	178	635	696	1.023	652	453	0.0	15.0	56.839	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	959	240	63	912	1.052	902	1264	21.6	35.8	126.741	F
2 - Church Lane	760	190	381	781	0.973	745	584	10.3	14.1	69.597	F
3 - Basingstoke Road (S)	712	178	657	681	1.046	669	468	15.0	25.7	124.174	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	959	240	63	911	1.052	906	1270	35.8	49.0	178.881	F
2 - Church Lane	760	190	383	780	0.974	750	587	14.1	16.7	83.274	F
3 - Basingstoke Road (S)	712	178	662	678	1.050	672	470	25.7	35.7	177.539	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	959	240	63	911	1.052	908	1273	49.0	61.8	228.938	F
2 - Church Lane	760	190	383	780	0.975	752	588	16.7	18.7	93.013	F
3 - Basingstoke Road (S)	712	178	664	677	1.052	672	471	35.7	45.6	229.443	F

2038 With Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Church Lane / Bstoke Rd mini	Mini-roundabout		1, 2, 3	367.42	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		367.42	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2038 With Dev	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Basingstoke Road (N)		FLAT	✓	1114	100.000
2 - Church Lane		FLAT	✓	770	100.000
3 - Basingstoke Road (S)		FLAT	✓	468	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	662	452
	2 - Church Lane	592	0	178
	3 - Basingstoke Road (S)	406	62	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Basingstoke Road (N)	2 - Church Lane	3 - Basingstoke Road (S)
From	1 - Basingstoke Road (N)	0	0	1
	2 - Church Lane	0	0	2
	3 - Basingstoke Road (S)	0	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Basingstoke Road (N)	1.22	726.41	207.6	F	1114	1114
2 - Church Lane	0.95	69.42	14.0	F	770	770
3 - Basingstoke Road (S)	0.63	13.28	1.7	B	468	468

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1114	278	61	911	1.222	895	964	0.0	54.8	119.019	F
2 - Church Lane	770	193	363	814	0.946	733	593	0.0	9.1	35.833	E
3 - Basingstoke Road (S)	468	117	564	755	0.620	462	533	0.0	1.6	12.020	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1114	278	62	911	1.223	910	990	54.8	105.8	326.404	F
2 - Church Lane	770	193	369	810	0.951	760	603	9.1	11.6	57.716	F
3 - Basingstoke Road (S)	468	117	584	742	0.631	468	545	1.6	1.7	13.093	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1114	278	62	911	1.223	910	994	105.8	156.7	526.063	F
2 - Church Lane	770	193	369	810	0.951	764	603	11.6	13.1	65.022	F
3 - Basingstoke Road (S)	468	117	588	740	0.633	468	546	1.7	1.7	13.223	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Basingstoke Road (N)	1114	278	62	911	1.223	910	995	156.7	207.6	726.407	F
2 - Church Lane	770	193	369	810	0.951	766	603	13.1	14.0	69.421	F
3 - Basingstoke Road (S)	468	117	589	739	0.633	468	547	1.7	1.7	13.277	B

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023		
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Filename: Hollow Lane.Arborfield Road Roundabout - Aug24 Dims.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\6. Hollow Lane Arborfield Road Hyde End Road Shinfield West Roundabout\Capacity Assessment File

Report generation date: 08/04/2025 17:31:37

»2038 FB, AM

»2038 FB, PM

»2038 WD, AM

»2038 WD, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2038 FB						
1 - Arborfield Road (E)	0.4	3.69	0.30	1.8	6.41	0.64
2 - B3349 Hyde End Road	3.9	12.14	0.80	0.9	5.39	0.46
3 - Shinfield West	0.4	7.71	0.28	0.4	5.80	0.29
4 - Hollow Lane	1.0	5.17	0.50	0.5	3.11	0.34
2038 WD						
1 - Arborfield Road (E)	0.4	3.68	0.30	2.1	6.97	0.67
2 - B3349 Hyde End Road	4.8	14.17	0.83	0.9	5.47	0.47
3 - Shinfield West	0.4	8.10	0.29	0.4	5.84	0.29
4 - Hollow Lane	1.0	5.33	0.51	0.5	3.11	0.34

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hollow Lane.Arborfield Road Roundabout
Location	Shinfield
Site number	HD068
Date	01/01/2025
Version	
Status	Existing
Identifier	
Client	
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 FB	AM	FLAT	08:00	09:00	60	15	
D4	2032 FB	PM	FLAT	17:00	18:00	60	15	
D5	2032 WD	AM	FLAT	08:00	09:00	60	15	
D6	2032 WD	PM	FLAT	17:00	18:00	60	15	
D7	2038 FB	AM	FLAT	08:00	09:00	60	15	✓
D8	2038 FB	PM	FLAT	17:00	18:00	60	15	✓
D9	2038 WD	AM	FLAT	08:00	09:00	60	15	✓
D10	2038 WD	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2038 FB, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	8.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.43	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Arborfield Road (E)		
2	B3349 Hyde End Road		
3	Shinfield West		
4	Hollow Lane		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Arborfield Road (E)	4.52	6.40	10.7	39.0	36.0	30.0		
2 - B3349 Hyde End Road	3.09	7.15	19.6	15.0	36.0	27.0		
3 - Shinfield West	4.04	6.15	4.4	12.0	36.0	31.0		
4 - Hollow Lane	4.91	6.62	17.7	46.0	36.0	23.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Arborfield Road (E)	0.673	1776
2 - B3349 Hyde End Road	0.641	1666
3 - Shinfield West	0.583	1423
4 - Hollow Lane	0.723	1981

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2038 FB	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	418	100.000
2 - B3349 Hyde End Road		FLAT	✓	1183	100.000
3 - Shinfield West		FLAT	✓	181	100.000
4 - Hollow Lane		FLAT	✓	697	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	157	63	198
	2 - B3349 Hyde End Road	682	0	59	442
	3 - Shinfield West	65	65	0	51
	4 - Hollow Lane	193	474	30	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	0	0	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	1	0	2
	4 - Hollow Lane	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.30	3.69	0.4	A	418	418
2 - B3349 Hyde End Road	0.80	12.14	3.9	B	1183	1183
3 - Shinfield West	0.28	7.71	0.4	A	181	181
4 - Hollow Lane	0.50	5.17	1.0	A	697	697

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	418	105	566	1395	0.300	416	930	0.0	0.4	3.673	A
2 - B3349 Hyde End Road	1183	296	290	1481	0.799	1168	692	0.0	3.7	11.077	B
3 - Shinfield West	181	45	1307	661	0.274	179	151	0.0	0.4	7.522	A
4 - Hollow Lane	697	174	802	1401	0.497	693	684	0.0	1.0	5.063	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	418	105	569	1393	0.300	418	940	0.4	0.4	3.693	A
2 - B3349 Hyde End Road	1183	296	291	1480	0.799	1183	696	3.7	3.9	12.094	B
3 - Shinfield West	181	45	1322	653	0.277	181	152	0.4	0.4	7.704	A
4 - Hollow Lane	697	174	812	1395	0.500	697	691	1.0	1.0	5.167	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	418	105	569	1393	0.300	418	940	0.4	0.4	3.693	A
2 - B3349 Hyde End Road	1183	296	291	1480	0.799	1183	696	3.9	3.9	12.130	B
3 - Shinfield West	181	45	1322	652	0.277	181	152	0.4	0.4	7.707	A
4 - Hollow Lane	697	174	812	1394	0.500	697	691	1.0	1.0	5.168	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	418	105	569	1393	0.300	418	940	0.4	0.4	3.693	A
2 - B3349 Hyde End Road	1183	296	291	1480	0.799	1183	696	3.9	3.9	12.142	B
3 - Shinfield West	181	45	1322	652	0.277	181	152	0.4	0.4	7.707	A
4 - Hollow Lane	697	174	812	1394	0.500	697	691	1.0	1.0	5.169	A

2038 FB, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	5.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.30	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2038 FB	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1014	100.000
2 - B3349 Hyde End Road		FLAT	✓	580	100.000
3 - Shinfield West		FLAT	✓	256	100.000
4 - Hollow Lane		FLAT	✓	595	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	457	149	408
	2 - B3349 Hyde End Road	191	0	53	336
	3 - Shinfield West	80	46	0	130
	4 - Hollow Lane	345	155	95	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	0	1	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	0	0	0
	4 - Hollow Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.64	6.41	1.8	A	1014	1014
2 - B3349 Hyde End Road	0.46	5.39	0.9	A	580	580
3 - Shinfield West	0.29	5.80	0.4	A	256	256
4 - Hollow Lane	0.34	3.11	0.5	A	595	595

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1014	254	295	1578	0.643	1007	613	0.0	1.8	6.244	A
2 - B3349 Hyde End Road	580	145	648	1251	0.464	577	654	0.0	0.9	5.317	A
3 - Shinfield West	256	64	929	881	0.290	254	295	0.0	0.4	5.743	A
4 - Hollow Lane	595	149	315	1753	0.339	593	868	0.0	0.5	3.099	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1014	254	296	1577	0.643	1014	616	1.8	1.8	6.403	A
2 - B3349 Hyde End Road	580	145	652	1248	0.465	580	658	0.9	0.9	5.391	A
3 - Shinfield West	256	64	935	878	0.292	256	297	0.4	0.4	5.805	A
4 - Hollow Lane	595	149	317	1752	0.340	595	874	0.5	0.5	3.113	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1014	254	296	1577	0.643	1014	616	1.8	1.8	6.405	A
2 - B3349 Hyde End Road	580	145	652	1248	0.465	580	658	0.9	0.9	5.391	A
3 - Shinfield West	256	64	935	878	0.292	256	297	0.4	0.4	5.805	A
4 - Hollow Lane	595	149	317	1752	0.340	595	874	0.5	0.5	3.113	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1014	254	296	1577	0.643	1014	616	1.8	1.8	6.405	A
2 - B3349 Hyde End Road	580	145	652	1248	0.465	580	658	0.9	0.9	5.391	A
3 - Shinfield West	256	64	935	878	0.292	256	297	0.4	0.4	5.805	A
4 - Hollow Lane	595	149	317	1752	0.340	595	874	0.5	0.5	3.113	A

2038 WD, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	9.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.57	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2038 WD	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	414	100.000
2 - B3349 Hyde End Road		FLAT	✓	1231	100.000
3 - Shinfield West		FLAT	✓	180	100.000
4 - Hollow Lane		FLAT	✓	702	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	159	63	192
	2 - B3349 Hyde End Road	706	0	61	464
	3 - Shinfield West	63	65	0	52
	4 - Hollow Lane	195	478	29	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	0	0	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	1	0	2
	4 - Hollow Lane	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.30	3.68	0.4	A	414	414
2 - B3349 Hyde End Road	0.83	14.17	4.8	B	1231	1231
3 - Shinfield West	0.29	8.10	0.4	A	180	180
4 - Hollow Lane	0.51	5.33	1.0	A	702	702

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	414	104	569	1394	0.297	412	952	0.0	0.4	3.664	A
2 - B3349 Hyde End Road	1231	308	283	1485	0.829	1213	698	0.0	4.5	12.539	B
3 - Shinfield West	180	45	1344	639	0.282	178	152	0.0	0.4	7.866	A
4 - Hollow Lane	702	176	823	1387	0.506	698	700	0.0	1.0	5.208	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	414	104	572	1391	0.298	414	964	0.4	0.4	3.684	A
2 - B3349 Hyde End Road	1231	308	284	1484	0.829	1230	702	4.5	4.7	14.081	B
3 - Shinfield West	180	45	1361	629	0.286	180	153	0.4	0.4	8.092	A
4 - Hollow Lane	702	176	834	1379	0.509	702	708	1.0	1.0	5.329	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	414	104	572	1391	0.298	414	964	0.4	0.4	3.684	A
2 - B3349 Hyde End Road	1231	308	284	1484	0.829	1231	702	4.7	4.7	14.150	B
3 - Shinfield West	180	45	1362	629	0.286	180	153	0.4	0.4	8.098	A
4 - Hollow Lane	702	176	834	1379	0.509	702	708	1.0	1.0	5.331	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	414	104	572	1391	0.298	414	964	0.4	0.4	3.684	A
2 - B3349 Hyde End Road	1231	308	284	1484	0.829	1231	702	4.7	4.8	14.175	B
3 - Shinfield West	180	45	1362	629	0.286	180	153	0.4	0.4	8.099	A
4 - Hollow Lane	702	176	834	1378	0.509	702	708	1.0	1.0	5.331	A

2038 WD, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Shinfield West Rdbt	Standard Roundabout		1, 2, 3, 4	5.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.59	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2038 WD	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1068	100.000
2 - B3349 Hyde End Road		FLAT	✓	585	100.000
3 - Shinfield West		FLAT	✓	256	100.000
4 - Hollow Lane		FLAT	✓	595	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	500	158	410
	2 - B3349 Hyde End Road	192	0	53	340
	3 - Shinfield West	80	46	0	130
	4 - Hollow Lane	358	146	91	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Arborfield Road (E)	2 - B3349 Hyde End Road	3 - Shinfield West	4 - Hollow Lane
From	1 - Arborfield Road (E)	0	0	1	0
	2 - B3349 Hyde End Road	0	0	0	0
	3 - Shinfield West	0	0	0	0
	4 - Hollow Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.67	6.97	2.1	A	1068	1068
2 - B3349 Hyde End Road	0.47	5.47	0.9	A	585	585
3 - Shinfield West	0.29	5.84	0.4	A	256	256
4 - Hollow Lane	0.34	3.11	0.5	A	595	595

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1068	267	282	1586	0.673	1060	627	0.0	2.0	6.752	A
2 - B3349 Hyde End Road	585	146	654	1247	0.469	582	687	0.0	0.9	5.388	A
3 - Shinfield West	256	64	936	877	0.292	254	300	0.0	0.4	5.779	A
4 - Hollow Lane	595	149	316	1753	0.339	593	874	0.0	0.5	3.101	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1068	267	283	1586	0.674	1068	630	2.0	2.0	6.963	A
2 - B3349 Hyde End Road	585	146	659	1244	0.470	585	692	0.9	0.9	5.468	A
3 - Shinfield West	256	64	942	874	0.293	256	302	0.4	0.4	5.843	A
4 - Hollow Lane	595	149	318	1751	0.340	595	880	0.5	0.5	3.115	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1068	267	283	1586	0.674	1068	630	2.0	2.1	6.966	A
2 - B3349 Hyde End Road	585	146	659	1244	0.470	585	692	0.9	0.9	5.468	A
3 - Shinfield West	256	64	942	874	0.293	256	302	0.4	0.4	5.843	A
4 - Hollow Lane	595	149	318	1751	0.340	595	880	0.5	0.5	3.115	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1068	267	283	1586	0.674	1068	630	2.1	2.1	6.966	A
2 - B3349 Hyde End Road	585	146	659	1244	0.470	585	692	0.9	0.9	5.468	A
3 - Shinfield West	256	64	942	874	0.293	256	302	0.4	0.4	5.843	A
4 - Hollow Lane	595	149	318	1751	0.340	595	880	0.5	0.5	3.115	A

Junctions 10					
ARCADY 10 - Roundabout Module					
Version: 10.1.0.1820					
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Filename: Arborfield Road.ERR - Aug24 Dims.j10

Path: P:\HD068 Hyde End Road, Shinfield\Deliverables\Transport\Modelling\7. Arborfield Road Eastern Relief Road Roundabout\Capacity Assessment File

Report generation date: 09/04/2025 10:49:49

»2038 Base, AM

»2038 Base, PM

»2038 WD, AM

»2038 WD, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2038 Base						
1 - Arborfield Road (E)	3.6	9.87	0.78	14.6	39.94	0.95
2 - Arborfield (W)	7.7	30.92	0.89	1.1	6.57	0.53
3 - ERR	2.0	7.23	0.66	74.7	182.77	1.04
2038 WD						
1 - Arborfield Road (E)	3.5	9.64	0.77	18.8	51.26	0.96
2 - Arborfield (W)	9.4	36.88	0.91	1.2	6.66	0.54
3 - ERR	2.0	7.33	0.66	94.7	228.68	1.06

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Arborfield Road ERR Roundabout
Location	Shinfield
Site number	HD068
Date	01/01/2025
Version	
Status	Existing
Identifier	
Client	
Jobnumber	HD068
Enumerator	ALPCE\transportuser
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2032 Base	AM	FLAT	08:00	09:00	60	15	
D4	2032 Base	PM	FLAT	17:00	18:00	60	15	
D5	2032 WD	AM	FLAT	08:00	09:00	60	15	
D6	2032 WD	PM	FLAT	17:00	18:00	60	15	
D7	2038 Base	AM	FLAT	08:00	09:00	60	15	✓
D8	2038 Base	PM	FLAT	17:00	18:00	60	15	✓
D9	2038 WD	AM	FLAT	08:00	09:00	60	15	✓
D10	2038 WD	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2038 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	15.17	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.17	C

Arms

Arms

Arm	Name	Description	No give-way line
1	Arborfield Road (E)		
2	Arborfield (W)		
3	ERR		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Arborfield Road (E)	3.52	7.39	15.0	44.0	35.0	29.0		
2 - Arborfield (W)	3.64	6.76	12.8	22.0	35.0	17.0		
3 - ERR	3.71	6.89	9.9	35.0	35.0	7.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Arborfield Road (E)	0.673	1761
2 - Arborfield (W)	0.670	1715
3 - ERR	0.695	1760

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2038 Base	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1326	100.000
2 - Arborfield (W)		FLAT	✓	940	100.000
3 - ERR		FLAT	✓	980	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	337	989
	2 - Arborfield (W)	380	0	560
	3 - ERR	899	81	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	0	6
	2 - Arborfield (W)	0	0	0
	3 - ERR	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.78	9.87	3.6	A	1326	1326
2 - Arborfield (W)	0.89	30.92	7.7	D	940	940
3 - ERR	0.66	7.23	2.0	A	980	980

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1326	332	80	1707	0.777	1312	1262	0.0	3.5	9.228	A
2 - Arborfield (W)	940	235	979	1059	0.887	915	414	0.0	6.3	22.053	C
3 - ERR	980	245	370	1503	0.652	972	1524	0.0	1.9	6.941	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1326	332	81	1706	0.777	1326	1277	3.5	3.6	9.852	A
2 - Arborfield (W)	940	235	989	1053	0.893	937	418	6.3	7.2	29.359	D
3 - ERR	980	245	379	1497	0.655	980	1547	1.9	1.9	7.216	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1326	332	81	1706	0.777	1326	1278	3.6	3.6	9.868	A
2 - Arborfield (W)	940	235	989	1052	0.893	939	418	7.2	7.5	30.469	D
3 - ERR	980	245	379	1496	0.655	980	1548	1.9	2.0	7.227	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1326	332	81	1706	0.777	1326	1279	3.6	3.6	9.874	A
2 - Arborfield (W)	940	235	989	1052	0.893	939	418	7.5	7.7	30.924	D
3 - ERR	980	245	380	1496	0.655	980	1549	2.0	2.0	7.232	A

2038 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	93.41	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	93.41	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2038 Base	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1396	100.000
2 - Arborfield (W)		FLAT	✓	617	100.000
3 - ERR		FLAT	✓	1435	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	573	823
	2 - Arborfield (W)	549	0	68
	3 - ERR	994	441	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	1	3
	2 - Arborfield (W)	0	0	0
	3 - ERR	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.95	39.94	14.6	E	1396	1396
2 - Arborfield (W)	0.53	6.57	1.1	A	617	617
3 - ERR	1.04	182.77	74.7	F	1435	1435

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	409	1486	0.940	1354	1466	0.0	10.5	23.241	C
2 - Arborfield (W)	617	154	798	1180	0.523	613	964	0.0	1.1	6.296	A
3 - ERR	1435	359	545	1381	1.039	1330	866	0.0	26.3	46.072	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	420	1478	0.944	1387	1495	10.5	12.8	35.027	E
2 - Arborfield (W)	617	154	818	1167	0.529	617	989	1.1	1.1	6.540	A
3 - ERR	1435	359	549	1378	1.041	1366	886	26.3	43.5	101.595	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	421	1477	0.945	1391	1499	12.8	13.9	38.211	E
2 - Arborfield (W)	617	154	820	1165	0.529	617	993	1.1	1.1	6.563	A
3 - ERR	1435	359	549	1378	1.041	1371	888	43.5	59.4	143.099	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	422	1477	0.945	1393	1501	13.9	14.6	39.936	E
2 - Arborfield (W)	617	154	821	1165	0.530	617	994	1.1	1.1	6.571	A
3 - ERR	1435	359	549	1378	1.041	1374	889	59.4	74.7	182.769	F

2038 WD, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	17.01	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.01	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2038 WD	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1316	100.000
2 - Arborfield (W)		FLAT	✓	964	100.000
3 - ERR		FLAT	✓	978	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	332	984
	2 - Arborfield (W)	393	0	571
	3 - ERR	896	82	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	0	6
	2 - Arborfield (W)	0	0	0
	3 - ERR	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.77	9.64	3.5	A	1316	1316
2 - Arborfield (W)	0.91	36.88	9.4	E	964	964
3 - ERR	0.66	7.33	2.0	A	978	978

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1316	329	81	1706	0.771	1303	1270	0.0	3.4	9.039	A
2 - Arborfield (W)	964	241	974	1062	0.907	935	410	0.0	7.3	24.333	C
3 - ERR	978	245	381	1495	0.654	970	1528	0.0	1.9	7.014	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1316	329	82	1706	0.772	1316	1287	3.4	3.4	9.621	A
2 - Arborfield (W)	964	241	984	1056	0.913	959	414	7.3	8.6	34.136	D
3 - ERR	978	245	391	1488	0.657	978	1552	1.9	2.0	7.309	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1316	329	82	1706	0.772	1316	1288	3.4	3.5	9.635	A
2 - Arborfield (W)	964	241	984	1056	0.913	962	414	8.6	9.1	36.031	E
3 - ERR	978	245	392	1487	0.658	978	1554	2.0	2.0	7.323	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1316	329	82	1706	0.772	1316	1288	3.5	3.5	9.639	A
2 - Arborfield (W)	964	241	984	1056	0.913	963	414	9.1	9.4	36.884	E
3 - ERR	978	245	393	1487	0.658	978	1554	2.0	2.0	7.330	A

2038 WD, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Arborfield ERR Rdbt	Standard Roundabout		1, 2, 3	117.22	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	117.22	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2038 WD	PM	FLAT	17:00	18:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Arborfield Road (E)		FLAT	✓	1396	100.000
2 - Arborfield (W)		FLAT	✓	629	100.000
3 - ERR		FLAT	✓	1450	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	579	817
	2 - Arborfield (W)	562	0	67
	3 - ERR	961	489	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - Arborfield Road (E)	2 - Arborfield (W)	3 - ERR
From	1 - Arborfield Road (E)	0	0	3
	2 - Arborfield (W)	0	0	0
	3 - ERR	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Arborfield Road (E)	0.96	51.26	18.8	F	1396	1396
2 - Arborfield (W)	0.54	6.66	1.2	A	629	629
3 - ERR	1.06	228.68	94.7	F	1450	1450

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	448	1459	0.957	1347	1438	0.0	12.2	26.156	D
2 - Arborfield (W)	629	157	788	1187	0.530	625	1007	0.0	1.1	6.355	A
3 - ERR	1450	363	558	1372	1.057	1328	855	0.0	30.5	51.480	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	459	1452	0.962	1383	1464	12.2	15.6	42.343	E
2 - Arborfield (W)	629	157	809	1173	0.536	629	1033	1.1	1.1	6.615	A
3 - ERR	1450	363	562	1369	1.059	1361	876	30.5	52.7	119.432	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	460	1451	0.962	1388	1467	15.6	17.5	47.886	E
2 - Arborfield (W)	629	157	812	1171	0.537	629	1036	1.1	1.2	6.645	A
3 - ERR	1450	363	562	1369	1.059	1365	879	52.7	73.9	174.582	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Arborfield Road (E)	1396	349	461	1451	0.962	1391	1468	17.5	18.8	51.257	F
2 - Arborfield (W)	629	157	814	1170	0.538	629	1038	1.2	1.2	6.657	A
3 - ERR	1450	363	562	1369	1.059	1367	881	73.9	94.7	228.684	F



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