


# ALL SOULS AVENUE – CHAMBERLAYNE ROAD – COLLEGE ROAD TRIANGLE

## TRAFFIC CONGESTION AND ACCIDENT REDUCTION FEASIBILITY STUDY

London Borough of Brent

Document Reference: 1000010879

Date: 16 March 2026

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## EXECUTIVE SUMMARY

This report presents the findings of a feasibility study undertaken to assess traffic congestion, road safety, and active travel conditions within the All Souls Avenue – Chamberlayne Road – College Road triangle in the London Borough of Brent.

The study area forms part of an important local road network which accommodates a mixture of residential traffic, local access movements, public transport services, and pedestrian activity associated with nearby schools and local amenities. As a result, the corridor experiences competing demands for road space, particularly during peak periods and school drop-off and pick-up times.

The purpose of this study is to establish a baseline understanding of existing conditions and to identify potential design interventions that could improve road safety, support active travel, and enhance the overall street environment. The study draws on a range of data sources including traffic counts, collision records, site observations, and a review of the existing street layout.

The analysis demonstrates that traffic volumes and vehicle speeds within the study area are typical for urban distributor roads within London. However, the existing street layout presents several challenges for pedestrians and cyclists, including limited crossing opportunities, constrained footway widths in certain locations, and conflicts between turning vehicles and vulnerable road users at junctions.

A number of opportunities have therefore been identified to improve safety and accessibility within the area. These include measures to support active travel, targeted road danger reduction interventions, improved pedestrian crossing facilities, and public realm enhancements to create a safer and more attractive street environment.

A series of short-term, medium-term, and long-term interventions have been developed to allow Brent Council to implement improvements in a phased manner. Short-term measures focus on low-cost interventions that can be delivered quickly,

while medium- and long-term options consider more comprehensive changes to the street layout and public realm.

The implementation of these measures has the potential to improve road safety, encourage greater use of sustainable travel modes, and enhance the overall quality of the local environment for residents, businesses, and visitors.

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# 1. Background

The All Souls Avenue – Chamberlayne Road – College Road triangle forms an important part of the local transport network within the London Borough of Brent. The area is characterised by a mixture of residential properties, local businesses, community facilities, and public transport services, which together generate a diverse range of transport movements throughout the day.

Chamberlayne Road functions as a key local corridor, providing connections between surrounding residential streets and the wider road network. The corridor accommodates a combination of through traffic, local access movements, bus services, and pedestrian activity. In contrast, All Souls Avenue and College Road primarily serve residential areas but experience additional traffic due to their connectivity with the main corridor.

The presence of nearby schools, local amenities, and bus stops contributes to high levels of pedestrian activity, particularly during peak travel periods. As a result, interactions between vehicles, pedestrians, and cyclists are a common feature of the street environment.

In recent years, Brent Council has prioritised the delivery of projects that support sustainable transport, road safety, and improvements to the public realm. This aligns with wider regional and national transport policies that promote walking, cycling, and public transport as alternatives to private car use.

This study has therefore been commissioned to establish the existing conditions within the study area and to identify opportunities for interventions that support these policy objectives. The findings of this report will inform future investment decisions and contribute to the development of a safer and more accessible transport network.

The scheme extents as shown in Figure 1-1, extend over approximately 8km of adopted highway, and is a mix of residential and retail frontages.

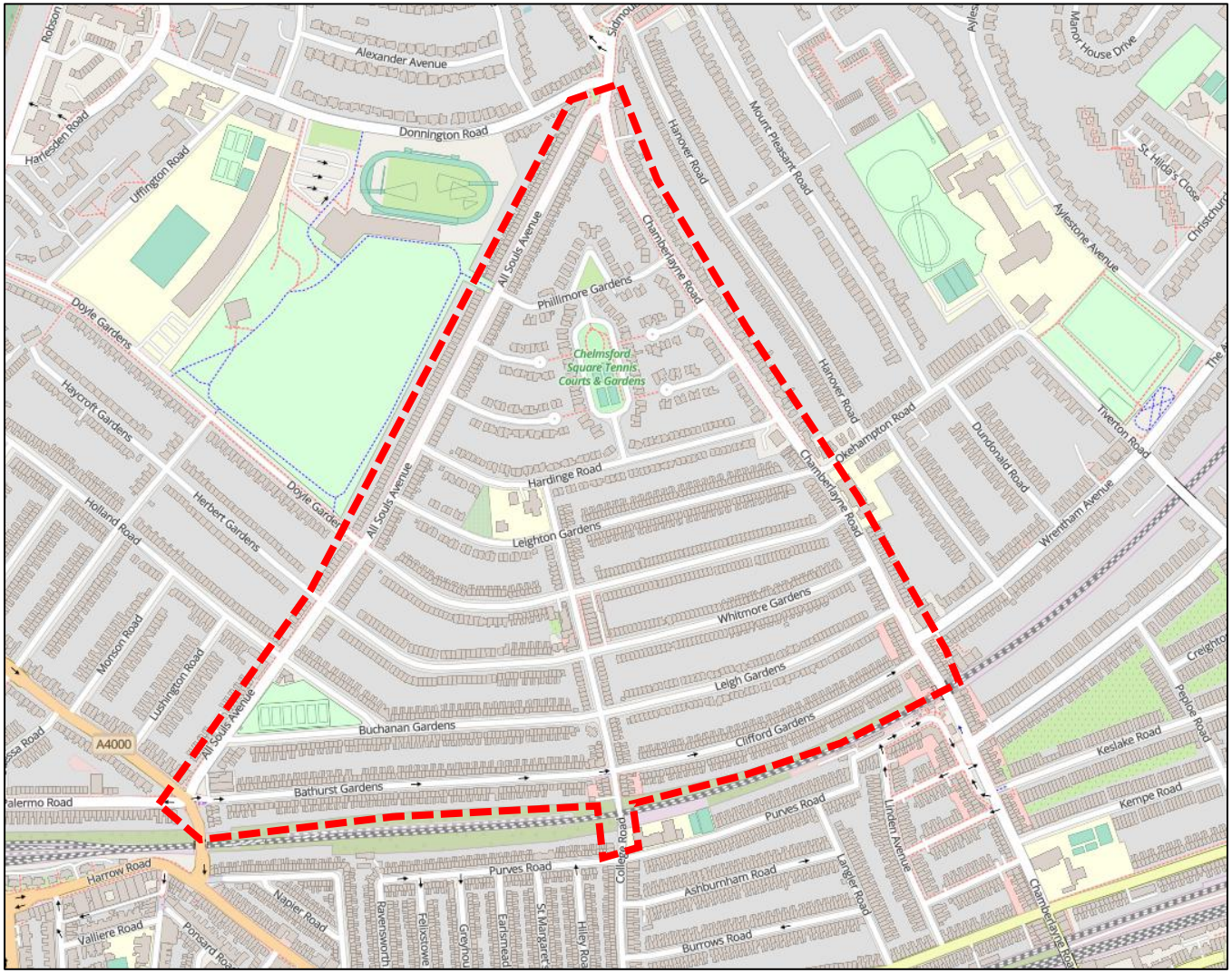



*Figure 1-1. Study Area, All Souls Avenue – Chamberlayne Road – College Road (map from OpenStreet Maps)*

# 2. Baseline Conditions

To assist the review of conditions around within the study area, survey data has been collected and summarised in the following sections for:

- Active Travel Analysis
- Green Infrastructure
- Road Danger Reduction
- Traffic Analysis
    - ✓ Automated Traffic Counts (ATC)
    - ✓ Bus Journey Analysis

## 2.1 Active Travel Analysis

Active travel plays an important role within the study area due to the presence of local amenities, schools, and public transport services that generate pedestrian activity throughout the day. Walking is particularly common for short local trips, including journeys to bus stops, schools, and nearby shops.

Site observations indicate that while footways are generally present along the majority of streets within the study area, their width and quality vary. In certain locations, the presence of street furniture, parked vehicles near junctions, and narrow footways can reduce the effective walking space available to pedestrians. These conditions may present challenges for individuals with reduced mobility, parents with pushchairs, and other vulnerable users.

Formal pedestrian crossing opportunities are also limited in certain locations, particularly along sections of Chamberlayne Road where traffic volumes are higher. In these areas, pedestrians may rely on informal crossing behaviour, which can increase the potential for conflicts with vehicles.

Cycling conditions within the study area are relatively constrained due to the absence of dedicated cycling infrastructure. Cyclists are generally required to share the carriageway with motor vehicles, which may reduce perceived safety, particularly

where traffic volumes are higher or carriageway widths are limited. This may discourage less confident cyclists from using the route.

Despite these challenges, the study area presents several opportunities for improving active travel conditions. The relatively compact urban environment and proximity of key destinations mean that many trips could potentially be undertaken by walking or cycling if suitable infrastructure and street conditions are provided.

Enhancing the safety and attractiveness of active travel routes within the area therefore represents a key opportunity to support sustainable travel behaviour and reduce reliance on private vehicles for short local journeys.

### 2.1.1 Active Travel England – Route and Area Check

A walking and cycling route assessment was conducted on the current conditions to evaluate opportunities for improvement and inform the study. This assessment is based on the Active Travel England's best practice guidance. It focuses on whether conditions are accessible, safe, and comfortable for pedestrians and cyclists which will help encourage active travel. The ATE Route Assessment (Table 2-1) was also undertaken on the four sections outlined in Figure 2-1.

*Table 2-1: Existing ATE Route assessment Output Overview*

| Criteria | Route 1 | Route 2 | Route 3 |
|---|---|---|---|
| Safety | 32% | 21% | 40% |
| Accessibility | 50% | 80% | 80% |
| Comfort | 50% | 75% | 75% |
| Directness | 58% | 63% | 83% |
| Attractiveness | 33% | 33% | 42% |
| Cohesion | 63% | 50% | 50% |
| Overall | 39% | 34% | 49% |

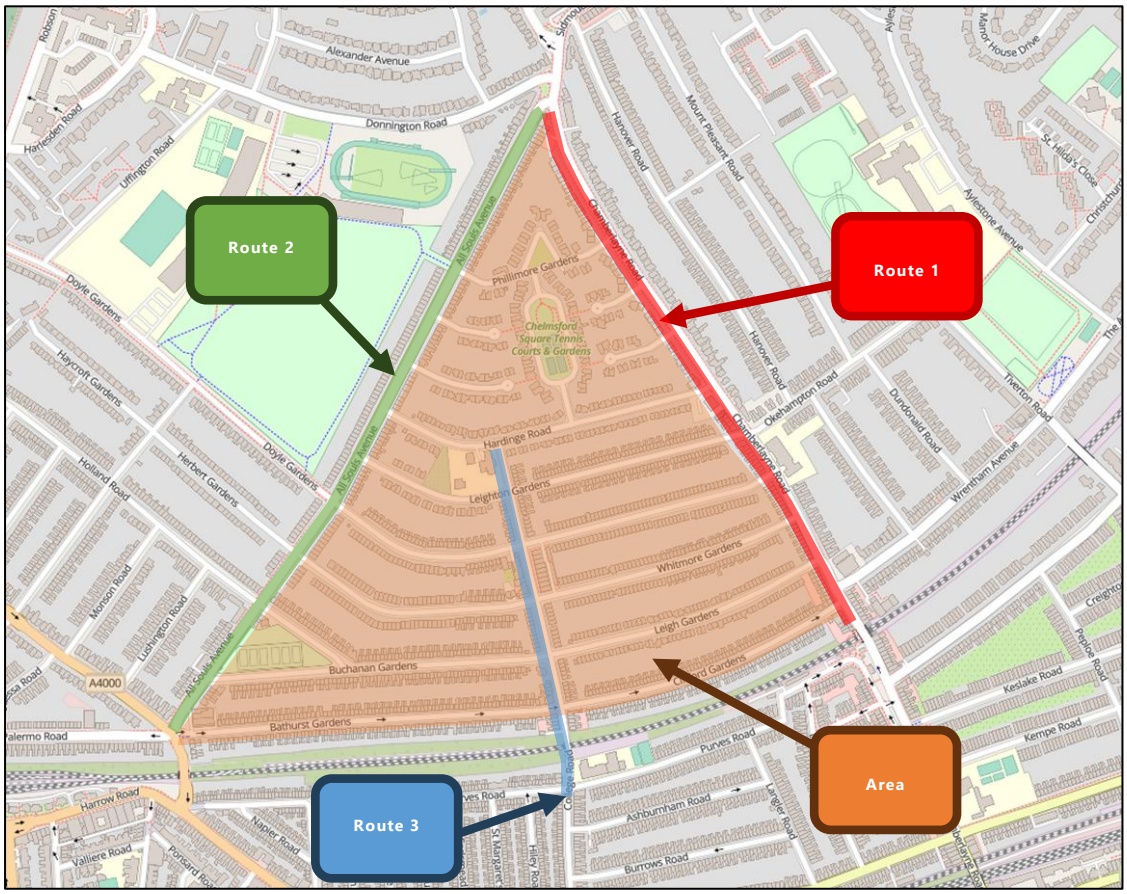



*Figure 2-1: Active Travel England Route and Area Assessment Extents (map from OpenStreet Maps)*

The Active Travel England (ATE) Area and Route Check assessments provide a structured evaluation of the suitability of the study area for walking, wheeling, and cycling. Together, these tools assess both the overall neighbourhood context (Area Check) and the quality of specific routes (Route Check) against key criteria including safety, accessibility, comfort, and network cohesion.

The Area Check assessment indicates that the study area has moderate underlying potential for active travel, supported by its compact urban form, proximity to local amenities, and short trip distances. These characteristics suggest that a significant proportion of journeys could be undertaken by walking or cycling. However, a number of constraints limit this potential, including variable footway conditions, limited crossing provision on busier roads, and the absence of dedicated cycling infrastructure. Junction design and traffic dominance in certain locations also contribute to reduced comfort and perceived safety for vulnerable users.

The Route Check assessment further highlights variations in performance across the three assessed corridors. Overall route scores range from 34% to 49%, indicating that none of the routes currently meet a high standard for active travel provision. College Road (Route 3) performs comparatively better, with an overall score of 49%, reflecting stronger performance in terms of directness (83%) and safety (40%), although there remains scope for improvement. Chamberlayne Road (Route 1) achieves a moderate score of 39%, with relatively balanced performance across criteria but lower scores for attractiveness (33%) and safety (32%) this is mainly dow to the igher vehicle volumes and wider carriageway wdths with few green spaces. All Souls Avenue (Route 2) performs least favourably, with an overall score of 34%, primarily due to lower safety (21%) and cohesion (50%) scores, despite relatively strong accessibility (80%) and comfort (75%).

Across all routes, safety and attractiveness emerge as the weakest performing criteria, reflecting the impact of traffic volumes, vehicle speeds, and limited segregation from motor traffic. While accessibility scores are generally higher, indicating that routes are physically usable, the overall user experience is reduced by

factors such as poor public realm quality, limited crossing opportunities, and inconsistent route continuity.

In summary, the ATE assessments demonstrate that while the study area is well-positioned to support active travel, existing infrastructure and street conditions do not currently provide a sufficiently safe or attractive environment. Targeted interventions to improve safety, enhance route coherence, and upgrade the public realm will be essential to unlock the area's full active travel potential.

### 2.1.2 Green Infrastructure

Low planting is only present at the junction with All Souls Avenue and Chamberlayne Road, which is not currently diverse and without any SuDS features.

The study area would benefit from more green infrastructure such as planting beds to increase sustainable drainage features, to accommodate trees, to enhance the street look and feel, to give landmarks better settings, to improve the area's biodiversity and available wildlife habitat, and to create pleasant buffers between motor traffic and pedestrian and cycle spaces. The bridge on College Road would also benefit from green walls (e.g. climbing plants or tall hedges) to dress up some inactive and unattractive facades. An alternative to green walls would be painting them or creating murals.

Whenever possible, spaces that are not necessary to cover with hard surfacing (e.g. for movement, business, and dwelling activities) should be unpaved and planted. For hard landscaping areas, permeable surfaces could be used (e.g. compacted gravel or permeable block paving) to increase sustainable drainage opportunities.

## 2.2 Road Danger Reduction

Road danger reduction forms a central objective of Brent Council's wider transport strategy and reflects the principles of the Vision Zero approach, which aims to eliminate deaths and serious injuries on the road network.

Analysis of collision data within the study area highlights a number of factors that contribute to road safety risk. These include turning movements at junctions, visibility constraints, and interactions between pedestrians and moving traffic where formal crossing facilities are limited.

Vehicle speeds within the study area are generally consistent with those observed on comparable urban corridors. However, even relatively moderate speeds can pose significant risks to vulnerable road users, particularly in areas with high pedestrian activity.

Opportunities for road danger reduction therefore focus on measures that reduce vehicle speeds, simplify junction layouts, and improve visibility for both drivers and pedestrians. These may include traffic calming measures such as raised tables, improved junction geometry, and enhanced pedestrian crossing facilities.

Improving road safety also involves creating an environment that encourages safer driver behaviour. This can be achieved through a combination of physical infrastructure changes, clearer road markings, and measures that reinforce the presence and priority of pedestrians and cyclists within the street environment.

### 2.2.1 Collision Analysis

According to Transport for London (TfL) collision data for the three-year period between 1 January 2022 and 31 December 2024, a total of 32 Personal Injury Collisions (PICs) were recorded within the study area. Refer to Table 2-2. Of these, 4 collisions were classified as Killed or Seriously Injured (KSI), with the remaining incidents resulting in slight injuries.

It should be noted that the recorded collision descriptions and associated contributory factors are based on the reporting police officers' professional judgement at the time of the incident. As such, these factors may be subjective and should be interpreted as indicative rather than definitive evidence of causation.

Analysis of the annual collision data indicates a gradual increase in collision frequency over the study period. The total number of PICs rose from 10 in 2022 to 11 in both 2023 and 2024, representing a slight upward trend. While the increase is relatively modest in absolute terms, the persistence of collisions at a consistent level suggests that existing road conditions have not significantly improved over time.

The number of KSI collisions shows some variability, with 2 recorded in 2022 and 1 recorded in each of the subsequent years. Although the overall number of serious collisions remains relatively low, the presence of KSIs highlights the ongoing risk to vulnerable road users and the need for targeted safety interventions.

Across the three-year period, the study area experiences an average of approximately 11 PICs per year, indicating a steady level of collision occurrence that warrants intervention, particularly in the context of a predominantly residential and mixed-use urban environment (Table 2-2).

*Table 2-2: Collision by year in Study Area*

| *Collisions by year 2022-2024* | | | |
|---|---|---|---|
| *Year* | *Slight* | *KSI* | *PIC* |
| *January 2022 - December 2022* | *8* | *2* | *10* |
| *January 2023 - December 2023* | *10* | *1* | *11* |
| *January 2024 - December 2024* | *10* | *1* | *11* |
| ***Annual Average*** | ***9*** | ***1*** | ***11*** |

A review of the spatial distribution of collisions reveals that incidents are not evenly distributed across the study area, with certain roads experiencing a higher concentration of collisions (Table 2-3 and Figure 2-2).

*Table 2-3: Spatial Distribution of Collisions in the Study Area*

| Spatial Distribution of Collisions | | | |
|---|---|---|---|
| Road | Slight | KSI | PIC |
| Chamberlayne Road | 9 | 2 | 11 |
| All Souls Avenue | 7 | 0 | 7 |
| College Road | 4 | 1 | 5 |
| Leigh Gdns / Buchanan Gdns | 3 | 1 | 4 |
| Clifford Gdns / Bathurst Gdns | 4 | 0 | 4 |
| Whitmore Gdns / Herbert Gdns | 1 | 0 | 1 |
| Total | 28 | 4 | 32 |

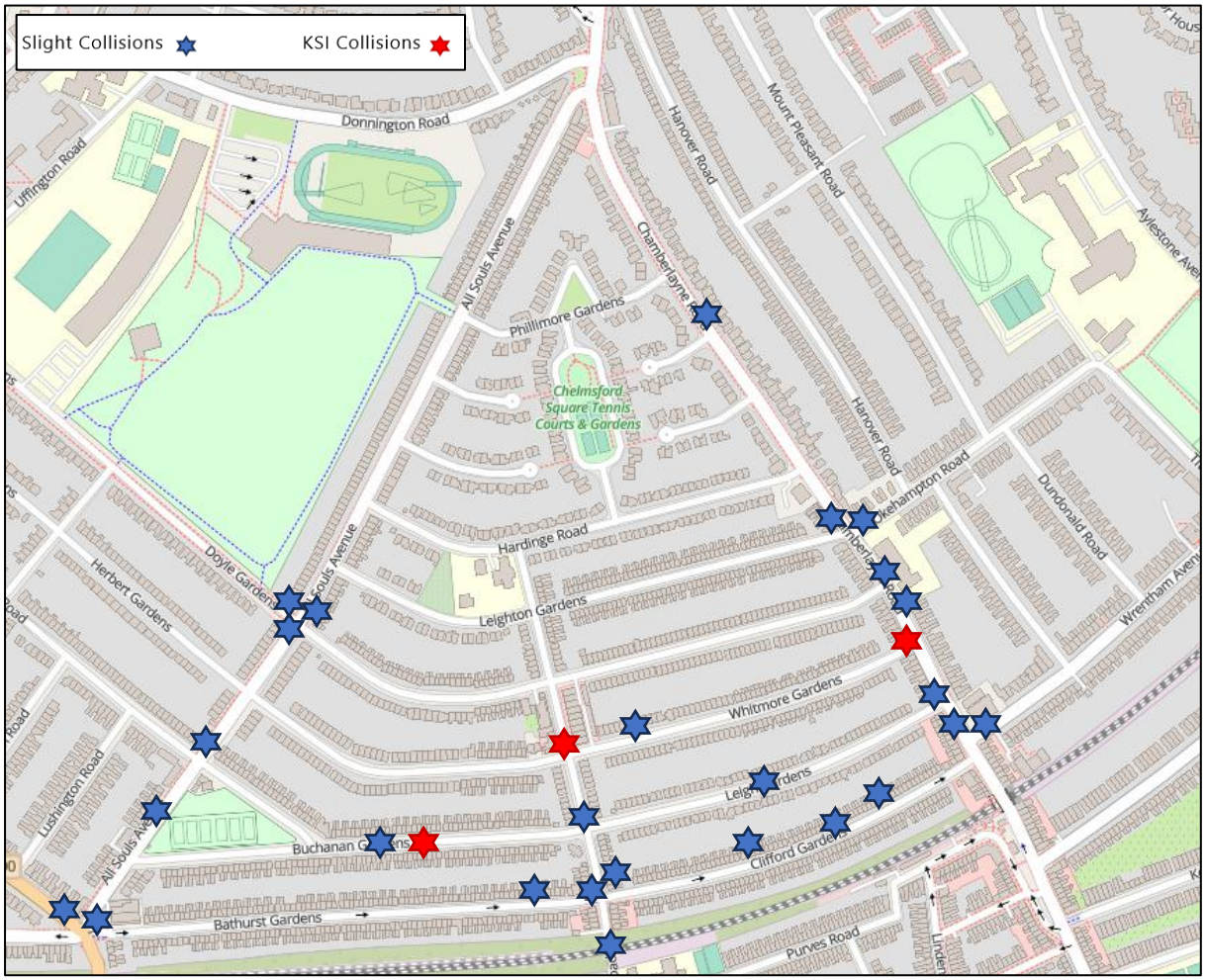



*Figure 2-2: Spatial Distribution of Collisions in the Study Area*

Chamberlayne Road accounts for the highest number of collisions (11 total, including 2 KSIs), representing nearly half of all recorded incidents. This reflects its function as the primary corridor within the study area, accommodating higher traffic volumes, bus movements, and a greater level of interaction between vehicles, pedestrians, and cyclists.

All Souls Avenue records 7 collisions, all of which are slight in severity. While no KSIs were recorded on this corridor, the relatively high number of incidents suggests that localised factors such as vehicle speeds, parking arrangements, and pedestrian crossing behaviour may contribute to collision risk.

College Road accounts for 5 collisions, including 1 KSI, indicating that while overall volumes may be lower than on Chamberlayne Road, there remains a risk of more severe incidents. This may be influenced by road geometry, visibility constraints, or interactions between through traffic and local access movements.

Smaller clusters of collisions are observed on Leigh Gardens / Buchanan Gardens (4 collisions, including 1 KSI) and Clifford Gardens / Bathurst Gardens (4 slight collisions). These locations are likely influenced by driver behaviour and cut through traffic.

Whitmore Gardens / Herbert Gardens records only 1 slight collision, suggesting relatively lower risk levels, likely due to lower traffic volumes and a more residential character.

While detailed causation data is limited, the distribution of collisions suggests several underlying contributing factors:

- High traffic volumes and mixed-use function along Chamberlayne Road increase the likelihood of conflicts between different road users.
- Junction density and turning movements, particularly at side roads, are likely to contribute to collision occurrence.
- Limited dedicated infrastructure for cyclists may result in interactions with general traffic, increasing risk.

- Pedestrian crossing behaviour, particularly in areas with insufficient formal crossing provision, may contribute to incidents along both primary and residential streets.
- On-street parking and reduced visibility may also play a role in collision occurrence on narrower residential roads that have higher traffic volumes such as Clifford Gardens.

## 2.3 Traffic Analysis

Traffic conditions have been analysed to understand the existing traffic usage and behaviours along the corridor, to minimise the impact on journey times and traffic movements.

### 2.3.1 Automatic Traffic Counts (ATCs)

The ATC analysis, based on data collected in 2024, reveals that the average of the 85th percentile speed recorded at 9 locations within the study area is 20.3mph with the highest average recorded being 27.6 mph at location E on a straight section between Philmore Gardens and Chamberlayne Road, and the lowest average recorded at location H, on Clifford Gardens at 22.7mph (Table 2-4). The existing average speeds are generally compliant with the posted speed limit of 20mph, with slightly higher speeds along Chamberlayne Road, however the recorded average speeds do not meet the intervention speed of 25mph. The ATC locations are shown on the map below in Figure 2-3.

*Table 2-4: ATC Vehicular Traffic Data*

| Site | Daily Avg. Volume (veh/day) | Peak hour vol. (veh/hr) | 85%ile Speed (mph) | Average Speed (mph) |
|---|---|---|---|---|
| Site A | 10,168 | 651 | 25.8 | 22 |
| Site B | 9,853 | 627 | 25.7 | 21.7 |
| Site C | 10,746 | 675 | 23.7 | 19.8 |
| Site D | 10,504 | 648 | 22.8 | 18.6 |
| Site E | 8,835 | 736 | 27.6 | 23.7 |
| Site F | 10,030 | 901 | 24.6 | 21.2 |
| Site G | 1,920 | 204 | 24 | 19.7 |
| Site H | 2,135 | 177 | 22.7 | 18.7 |
| Site I | 3,970 | 367 | 23 | 17.5 |

To provide additional context for the traffic conditions observed on Chamberlayne Road, a comparison has been undertaken with data collected on High Road Leytonstone, a similarly functioning urban corridor within London. High Road Leytonstone performs a comparable role within the local road network, accommodating a mix of through traffic, local access movements, and public transport activity.

This comparison provides a useful benchmark for understanding whether traffic volumes and vehicle speeds recorded on Chamberlayne Road are typical for a road of this nature.

The Automatic Traffic Count (ATC) data indicates that daily traffic volumes recorded on Chamberlayne Road range between 9,853 and 10,746 vehicles per day across the four monitoring sites. Peak hour traffic flows range from 627 to 675 vehicles per hour, reflecting typical peak demand conditions for a busy urban corridor.

By comparison (Table 2-5), High Road Leytonstone records similar traffic volumes, with five-day average daily traffic volumes ranging between 10,255 and 10,914 vehicles, and seven-day averages between 10,448 and 11,435 vehicles per day. Peak hour flows along High Road Leytonstone range from 740 to 834 vehicles per hour, which is marginally higher than those recorded on Chamberlayne Road but remains within a comparable range.

*Table 2-5: ATC Comparison with Chamberlayne Road and High Road Leytonstone*

| | Site | Daily Avg. Volume | Peak hour vol. | 85%ile Speed | Average Speed |
|---|---|---|---|---|---|
| Chamberlayne Road | Site A | 10,168 | 651 | 25.8 | 22 |
| | Site B | 9,853 | 627 | 25.7 | 21.7 |
| | Site C | 10,746 | 675 | 23.7 | 19.8 |
| | Site D | 10,504 | 648 | 22.8 | 18.6 |
| High Road Leytonstone | Site A | 10,448 | 779 | 25.9 | 20.9 |
| | Site B | 11,435 | 754 | 27.9 | 22.4 |
| | Site C | 10,908 | 740 | 29.3 | 23.6 |
| | Site D | 11,043 | 834 | 23.2 | 17.7 |

Overall, this comparison indicates that the traffic volumes observed on Chamberlayne Road are broadly consistent with those recorded on comparable urban distributor roads within London. While the peak hour flows on High Road Leytonstone are slightly higher, the overall magnitude of daily traffic volumes is similar.

Vehicle speed data also demonstrates similarities between the two corridors. The 85th percentile speeds recorded on Chamberlayne Road range from 22.8 mph to 25.8 mph, with average speeds between 18.6 mph and 22 mph across the monitoring sites.

On High Road Leytonstone, the 85th percentile speeds range from 23.2 mph to 29.3 mph, with average speeds between 17.7 mph and 23.6 mph.

These results indicate that vehicle speeds on both corridors fall within a similar range and are broadly reflective of conditions typically observed on urban roads with comparable traffic demand, road geometry, and levels of roadside activity.

The comparison demonstrates that both traffic volumes and vehicle speeds on Chamberlayne Road are consistent with those observed on similar urban corridors within London. While High Road Leytonstone experiences slightly higher peak hour traffic flows and marginally higher 85th percentile speeds at certain locations, the overall operating conditions are broadly comparable.

This suggests that the traffic environment on Chamberlayne Road is typical of an urban distributor road serving mixed residential and local access functions, and that the levels of traffic observed are not unusual for a corridor of this nature.

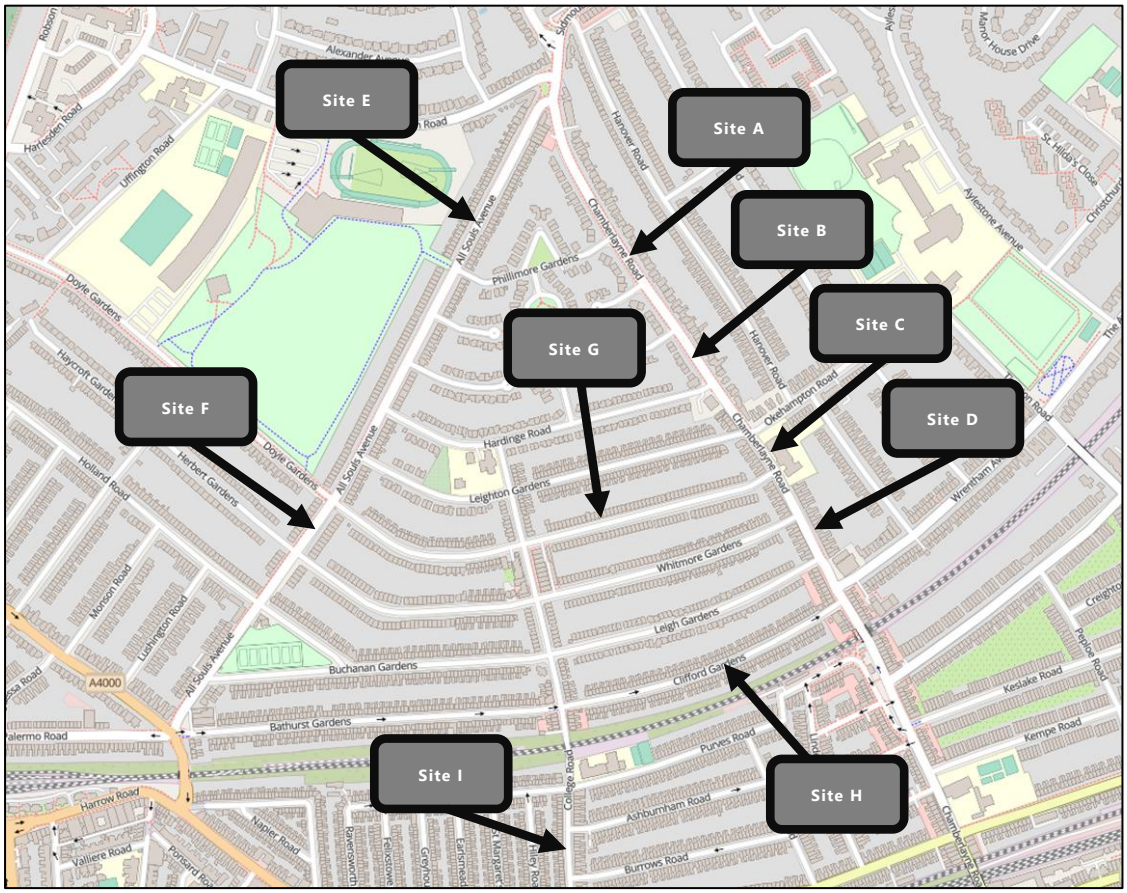



*Figure 2-3 : Automated Traffic Counts Locations (map from OpenStreet Maps)*

### 2.3.2 Bus Journey Analysis

Bus services within the study area are provided by four routes: 6, 52, 187 and 302. Route 187 operates along Doyle Gardens and Liddell Gardens, before joining Chamberlayne Road between Liddell Gardens and Kensal Rise Station. Routes 6, 52 and 302 run along Chamberlayne Road, passing the scheme location at the All Souls Avenue junction and continuing north towards Kensal Rise Station. There are currently no dedicated bus lanes within the study area, and all bus stops are located within the general traffic lanes, meaning buses operate fully within mixed traffic conditions.

For the purposes of this study, the iBus journey time analysis will focus on Chamberlayne Road, as this corridor has been identified as experiencing notable delays and variability in bus journey times. Given that three of the four routes within the study area operate along this section of road, it represents the primary corridor

where bus performance and reliability are most likely to be affected by local traffic conditions. iBus bus journey time data was obtained from TfL from the 01st February 2025 to the 31st July 2025, to understand the bus journey times along the corridor and to identify location where delays occur.

The results of the bus journey time analysis within the study area are presented in Table 2-6 for the northbound direction and Table 2-7 for the southbound direction.

The northbound (NB) iBus journey time data indicates that bus services operating through the study area generally perform in line with scheduled journey times, with no consistent or corridor-wide pattern of significant delay observed across the analysed time periods. Across Routes 6, 52 and 302, the actual average journey times closely match the scheduled values for most time periods, suggesting that northbound bus movements along the corridor operate relatively reliably compared with the southbound direction.

For the section between Wrentham Avenue and Oakhampton Road, the observed journey times typically differ only marginally from scheduled times. For example, on Route 6, the scheduled journey time during the 07:00–11:00 period is 57 seconds, which aligns exactly with the observed average journey time of 57 seconds, while the 11:00–15:00 period shows only a minor increase from 58 seconds scheduled to 59 seconds observed. Similar patterns are evident on Route 52, where actual journey times during most daytime periods are either slightly below or only marginally above the scheduled values. Route 302 shows slightly higher variability on this segment, particularly during the 07:00–11:00 period, where actual journey times increase from 51 seconds to 54 seconds and during the 19:00-00:00 time period, where journey times increase from 36 seconds to 48 seconds.

A similar pattern is observed for the Oakhampton Road to All Souls Avenue section. For the majority of time periods across all routes, actual journey times are either below or only slightly above the scheduled journey times, indicating that buses are generally able to progress through this part of the corridor without experiencing significant congestion-related delay. For instance, Route 6 shows reductions in

journey time during several periods (e.g., 98 seconds scheduled versus 68 seconds observed between 11:00–15:00), while Route 52 and Route 302 also demonstrate comparable or slightly improved travel times relative to schedule in a number of periods.

Variations are however present in some individual time periods with slight increases on Route 302 between Oakhampton Road and All Souls Avenue during the inter-peak and PM peak periods (62–68 seconds compared with a scheduled 60 seconds) These differences are relatively small; however, they form a consistent pattern of delays.

Southbound (SB) journey time data indicates that the most significant delays to buses within the study area occur on the southern section between Whitmore Gardens and Kensal Rise Station, where actual journey times consistently exceed scheduled values across multiple routes and time periods. This pattern is particularly pronounced during the morning and inter-peak periods (07:00–15:00). For example, on Route 6, the scheduled journey time between Whitmore Gardens and Kensal Rise Station during the 07:00–11:00 period is 63 seconds, whereas the observed average journey time increases to 97 seconds, representing a substantial increase of over 50%. Similar trends are evident on other services: Route 52 shows the most significant delay on this section, where the scheduled journey time of 56 seconds increases to 107 seconds during the morning peak, nearly doubling the expected travel time. Route 187 also demonstrates consistent delay on the same segment, with scheduled journey times of 92 seconds increasing to 104 seconds in the morning peak and remaining elevated throughout the day. These findings indicate that the section of Chamberlayne Road approaching Kensal Rise Station functions as a clear delay hotspot, likely reflecting localised congestion, bus stop activity, and general traffic conditions.

*Table 2-6: Bus Northbound (NB) Journey Analysis in Study Area*

| Bus Route | NB Journey | Time Period | Scheduled Trips | Actual Trips | Average Scheduled Journey Times | Actual Journey time |
|---|---|---|---|---|---|---|
| 6 | Wrentham Avenue to Oakhampton Road | 00:00-07-00 | 8 | 8 | 49 | 45 |
| | | 07:00 - 11:00 | 25 | 25 | 57 | 57 |
| | | 11:00-15:00 | 29 | 29 | 58 | 59 |
| | | 15:00 - 19:00 | 30 | 30 | 63 | 66 |
| | | 19:00 - 23:00 | 35 | 34 | 53 | 53 |
| | Oakhampton Road to All Souls Avenue | 00:00-07-00 | 8 | 8 | 76 | 63 |
| | | 07:00 - 11:00 | 25 | 25 | 88 | 64 |
| | | 11:00-15:00 | 29 | 29 | 89 | 68 |
| | | 15:00 - 19:00 | 30 | 30 | 98 | 73 |
| | | 19:00 - 00:00 | 35 | 34 | 81 | 65 |
| 52 | Wrentham Avenue to Oakhampton Road | 00:00-07-00 | 9 | 9 | 43 | 42 |
| | | 07:00 - 11:00 | 22 | 22 | 64 | 58 |
| | | 11:00-15:00 | 22 | 22 | 72 | 64 |
| | | 15:00 - 19:00 | 21 | 21 | 79 | 69 |
| | | 19:00 - 23:00 | 31 | 31 | 51 | 54 |
| | Oakhampton Road to All Souls Avenue | 00:00-07-00 | 9 | 9 | 67 | 56 |
| | | 07:00 - 11:00 | 22 | 22 | 99 | 64 |
| | | 11:00-15:00 | 22 | 22 | 111 | 68 |
| | | 15:00 - 19:00 | 21 | 21 | 123 | 74 |
| | | 19:00 - 00:00 | 31 | 31 | 78 | 64 |
| 302 | Wrentham Avenue to Oakhampton Road | 00:00-07-00 | 6 | 5 | 34 | 40 |
| | | 07:00 - 11:00 | 25 | 24 | 51 | 54 |
| | | 11:00-15:00 | 25 | 25 | 62 | 57 |
| | | 15:00 - 19:00 | 22 | 22 | 65 | 65 |
| | | 19:00 - 23:00 | 22 | 22 | 36 | 48 |
| | Oakhampton Road to All Souls Avenue | 00:00-07-00 | 6 | 6 | 60 | 54 |
| | | 07:00 - 11:00 | 24 | 24 | 60 | 62 |
| | | 11:00-15:00 | 25 | 25 | 60 | 63 |
| | | 15:00 - 19:00 | 21 | 21 | 60 | 68 |
| | | 19:00 - 00:00 | 23 | 23 | 60 | 59 |

*Table 2-7: Bus Southbound (SB) Journey Analysis in Study Area*

| Bus Route | SB Journey | Time Period | Scheduled Trips | Actual Trips | Average Scheduled Journey Times | Actual Journey time |
|---|---|---|---|---|---|---|
| 6 | All Soul Avenue to Oakhampton Road | 00:00-07-00 | 8 | 9 | 76 | 56 |
| | | 07:00 - 11:00 | 30 | 29 | 91 | 65 |
| | | 11:00-15:00 | 30 | 30 | 86 | 62 |
| | | 15:00 - 19:00 | 29 | 30 | 92 | 63 |
| | | 19:00 - 23:00 | 27 | 28 | 69 | 52 |
| | Oakhampton Road to Whitmore Gardens | 00:00-07-01 | 8 | 8 | 27 | 23 |
| | | 07:00 - 11:01 | 30 | 29 | 32 | 34 |
| | | 11:00-15:01 | 30 | 30 | 30 | 31 |
| | | 15:00 - 19:01 | 29 | 30 | 32 | 31 |
| | | 19:00 - 23:01 | 27 | 28 | 24 | 22 |
| | Whitmore Gardens to Kensal Rise Station | 00:00-07-00 | 8 | 8 | 53 | 50 |
| | | 07:00 - 11:00 | 30 | 29 | 63 | 97 |
| | | 11:00-15:00 | 30 | 30 | 60 | 68 |
| | | 15:00 - 19:00 | 29 | 30 | 64 | 69 |
| | | 19:00 - 00:00 | 28 | 28 | 48 | 49 |
| 52 | All Soul Avenue to Oakhampton Road | 00:00-07-00 | 15 | 15 | 67 | 51 |
| | | 07:00 - 11:00 | 25 | 25 | 82 | 64 |
| | | 11:00-15:00 | 23 | 23 | 76 | 63 |
| | | 15:00 - 19:00 | 22 | 22 | 76 | 63 |
| | | 19:00 - 23:00 | 25 | 25 | 68 | 53 |
| | Oakhampton Road to Whitmore Gardens | 00:00-07-00 | 15 | 15 | 23 | 22 |
| | | 07:00 - 11:00 | 25 | 25 | 29 | 39 |
| | | 11:00-15:00 | 23 | 23 | 27 | 36 |
| | | 15:00 - 19:00 | 22 | 22 | 27 | 35 |
| | | 19:00 - 00:00 | 25 | 25 | 23 | 24 |
| | Whitmore Gardens to Kensal Rise Station | 00:00-07-00 | 15 | 15 | 49 | 44 |
| | | 07:00 - 11:00 | 25 | 25 | 60 | 107 |
| | | 11:00-15:00 | 23 | 23 | 56 | 75 |
| | | 15:00 - 19:00 | 22 | 22 | 56 | 73 |
| | | 19:00 - 23:00 | 25 | 25 | 50 | 52 |

*Continued Table 2-7: Bus Southbound (SB) Journey Analysis in Study Area*

| Bus Route | SB Journey | Time Period | Scheduled Trips | Actual Trips | Average Scheduled Journey Times | Actual Journey time |
|---|---|---|---|---|---|---|
| 302 | All Soul Avenue to Oakhampton Road | 00:00-07-00 | 7 | 6 | 61 | 62 |
| | | 07:00 - 11:00 | 13 | 14 | 94 | 97 |
| | | 11:00-15:00 | 14 | 14 | 93 | 93 |
| | | 15:00 - 19:00 | 15 | 14 | 92 | 96 |
| | | 19:00 - 00:00 | 16 | 16 | 73 | 76 |
| | Oakhampton Road to Whitmore Gardens | 00:00-07-00 | 4 | 4 | 48 | 46 |
| | | 07:00 - 11:00 | 14 | 14 | 68 | 96 |
| | | 11:00-15:00 | 14 | 14 | 65 | 72 |
| | | 15:00 - 19:00 | 14 | 14 | 65 | 74 |
| | | 19:00 - 23:00 | 15 | 15 | 55 | 54 |
| | Whitmore Gardens to Kensal Rise Station | 00:00-07-01 | 10 | 10 | 60 | 48 |
| | | 07:00 - 11:01 | 23 | 23 | 60 | 60 |
| | | 11:00-15:01 | 23 | 23 | 60 | 58 |
| | | 15:00 - 19:01 | 23 | 23 | 60 | 58 |
| | | 19:00 - 23:01 | 26 | 25 | 60 | 49 |
| 187 | Whitmore Gardens to Kensal Rise Station | 00:00-07-01 | 10 | 10 | 57 | 58 |
| | | 07:00 - 11:01 | 24 | 23 | 92 | 104 |
| | | 11:00-15:01 | 23 | 23 | 65 | 77 |
| | | 15:00 - 19:01 | 23 | 23 | 71 | 78 |
| | | 19:00 - 23:01 | 26 | 25 | 72 | 57 |

Beyond this key bottleneck, the data also highlights secondary delays on the Oakhampton Road to Whitmore Gardens section, particularly affecting Routes 6, 52 and 302, where actual journey times regularly exceed scheduled times during the daytime periods (The section of Chamberlayne Road experiencing delays to bus journey times is shown in Figure 2-4). For instance, Route 302 shows notable increases during the 07:00–11:00 and 11:00–15:00 periods, where scheduled times of 68 seconds increase to 96 seconds and 65 seconds to 72 seconds respectively, indicating congestion building further upstream along the corridor.

In contrast, the All Souls Avenue to Oakhampton Road segment generally performs closer to scheduled journey times, with only moderate increases observed, suggesting that the most severe operational impacts occur closer to Kensal Rise Station rather than at the northern end of the study corridor.

Across most routes, delays are most pronounced during the morning peak and inter-peak periods, while late evening periods (after approximately 19:00) show journey times returning closer to scheduled values.

Overall, the data suggests that northbound bus operations along this corridor are generally stable, with no clear delay hotspots or recurring reliability issues identified. This contrasts with the southbound analysis, which demonstrates a consistent pattern of bus journey time inflation and variability toward the southern end of Chamberlayne Road, with the Whitmore Gardens to Kensal Rise Station section representing the most significant constraint on bus reliability within the study area.

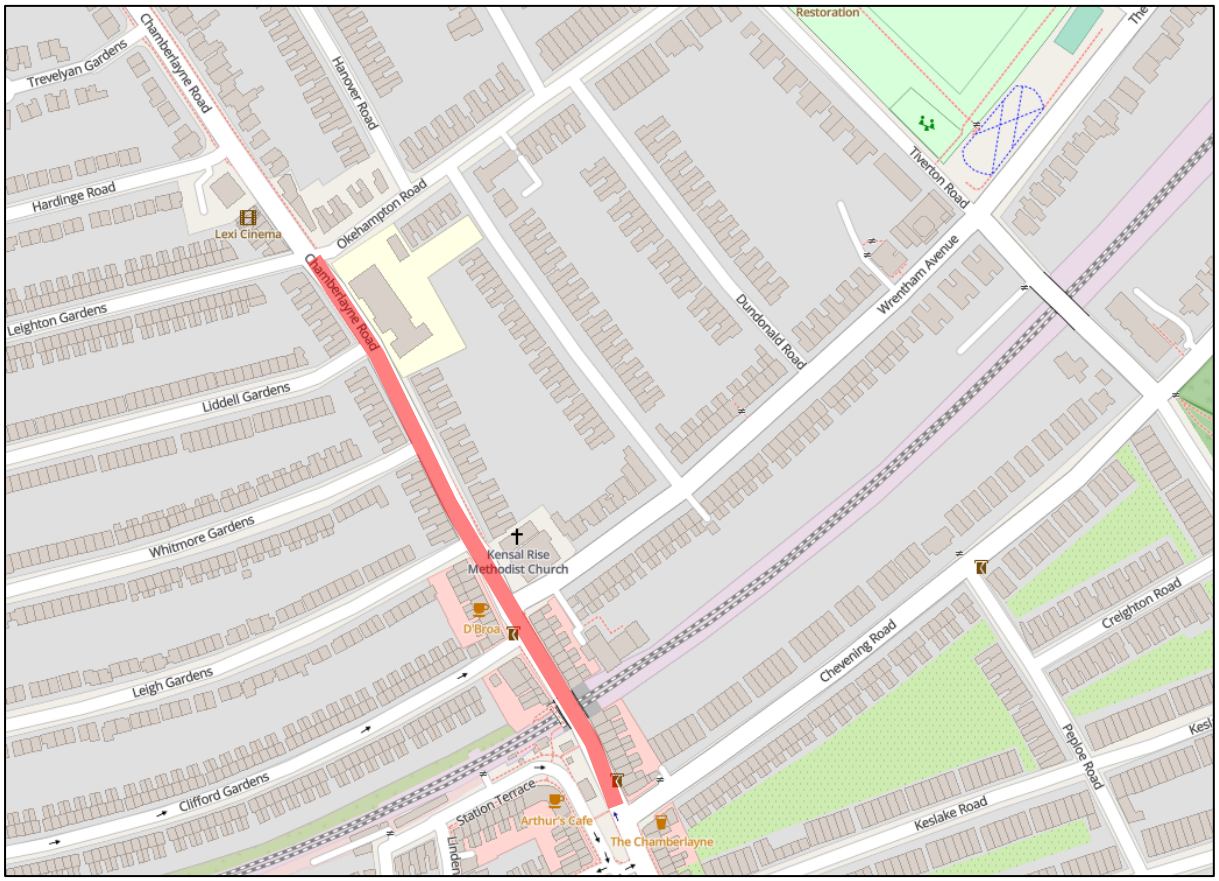



*Figure 2-4: Section of Chamberlayne Road experiencing delays to bus journey times*

## 2.4 Conclusion

The baseline assessment demonstrates that the study area experiences typical traffic conditions for an urban distributor corridor within London. Traffic volumes and speeds are broadly consistent with those observed on similar roads and reflect the role of the corridor in providing both local access and connectivity within the wider transport network.

However, the existing street layout presents several challenges for pedestrians and cyclists. Limited crossing opportunities, constrained footway widths in certain locations, and the absence of dedicated cycling infrastructure may reduce the attractiveness of active travel and increase potential conflicts between different road users.

Junction layouts and parking arrangements in some locations also affect visibility and may contribute to safety concerns, particularly where pedestrian activity is high.

Overall, the baseline analysis highlights opportunities to improve safety, accessibility, and the quality of the street environment through targeted interventions. These improvements have the potential to support Brent Council's wider objectives for sustainable transport, road safety, and public realm enhancement.

# 3. Proposed Interventions

The baseline analysis presented in the previous sections identified a range of transport and public realm challenges across the study area. These include moderate levels of recorded collisions, inconsistent pedestrian crossing opportunities, limited cycling provision, and areas where traffic movements contribute to congestion and safety concerns. In addition, the Active Travel England (ATE) Route and Area assessment highlighted several deficiencies in terms of safety, comfort, attractiveness and network cohesion for walking and cycling. In response to these findings, a series of interventions have been developed with the objective of improving road safety, enhancing conditions for walking and cycling, and creating a more balanced street environment that supports both local access and sustainable transport. The interventions have been informed by the Healthy Streets Approach and seek to prioritise active travel while maintaining appropriate access for buses, residents, businesses, and essential traffic movements.

The proposed measures have been structured into short-term, medium-term, and long-term interventions. This staged approach allows relatively simple and cost-effective measures to be delivered in the near term while enabling more substantial infrastructure changes to be considered as part of future funding opportunities and detailed design stages. Short-term measures primarily focus on traffic management adjustments, improved road markings and signage, and small-scale operational improvements. Medium-term interventions introduce more substantial changes to junction layouts, cycling infrastructure and pedestrian facilities, while long-term proposals explore opportunities for wider street redesign and public realm enhancements.

Together, these interventions aim to improve safety for all road users, encourage greater levels of walking and cycling, reduce the dominance of motor traffic in residential streets, and enhance the overall character and functionality of the local street network.

## 3.1 Chamberlayne Road

Chamberlayne Road forms a key corridor within the study area and accommodates a mix of through traffic, local access movements, bus services, and active travel. The corridor also provides access to surrounding residential streets and local amenities, which contributes to high pedestrian activity and intermittent congestion, particularly during peak hours. Observations from the baseline assessment indicate that traffic speeds, parked vehicles, and pedestrian crossing behaviour contribute to both congestion and safety concerns along this section of road.

Introducing a traffic filtering system along Chamberlayne Road that restricts access to local residents, businesses, emergency vehicles, and buses is unlikely to be appropriate given the corridor's strategic function within the local road network. As identified in the traffic analysis, Chamberlayne Road operates as a key urban distributor route accommodating multiple bus services and important north–south connectivity. Restricting general through traffic on this corridor would likely result in significant traffic displacement onto surrounding residential streets such as All Souls Avenue, College Road and adjacent side roads, potentially increasing congestion, road safety risks, and environmental impacts in areas that are less suitable for accommodating additional traffic. Furthermore, the bus journey time analysis indicates that while some delays occur—particularly southbound near Kensal Rise Station—overall bus operations are broadly stable; introducing a traffic filtering system could create unintended operational complexities, including enforcement challenges and potential delays associated with restricted access points. Given the existing collision distribution, where incidents are concentrated along the main corridor but also present on surrounding streets, a filtering approach risks redistributing rather than reducing road danger. A more balanced strategy, , is to retain Chamberlayne Road's function while implementing targeted measures such as traffic calming, improved crossings, and cycle infrastructure to enhance safety and support active travel without generating adverse network-wide impacts. As a result, a series of potential interventions have been identified. These have been categorised

into short-term, medium-term, and long-term options based on implementation complexity, cost, and level of intervention.

### 3.1.1 Chamberlayne Road – Short Term

Short-term interventions would focus on relatively low-cost and easily deliverable measures aimed at improving safety and traffic management in the immediate term. These measures include enhanced road markings, adjustments to parking arrangements to improve traffic flow and the relocation of the bus stop at the junction of Wrentham Road.

### 3.1.2 Chamberlayne Road – Medium Term

Medium-term measures would involve more substantial modifications to the road layout to improve operational efficiency and safety. These include:

- Introduction of a one-way system on Wrentham Road
- Ban right turn at the junction of Clifford Gardens and Chamberlayne Road
- Advisory cycle lanes along Chamberlayne Road

It is recommended that these measures should be implemented under an experimental order and further improvements that involve localised junction tightening and improved kerb alignments should not be made at this stage.

### 3.1.3 Chamberlayne Road – Long Term

Long-term interventions would involve comprehensive corridor redesign aimed at transforming the function of Chamberlayne Road into a safer and more balanced street environment. Proposed measures include

- Partial road space reallocation and kerb realignment
- Relocated and upgraded crossings
- Traffic calming measures.

## 3.2 All Souls Avenue

All Souls Avenue serves primarily as a residential street but experiences notable traffic movements due to its connection with surrounding arterial routes. The street is also used by pedestrians accessing local schools, residential properties, and nearby amenities. As a result, traffic speeds, parking arrangements, and pedestrian crossing behaviour are important considerations in improving safety and accessibility.

To address these issues, a series of potential interventions have been identified. These have been categorised into short-term, medium-term, and long-term options based on implementation complexity, cost, and level of intervention to allow incremental changes that respond to observed traffic conditions and community needs.

### 3.2.1 All Souls Avenue – Short Term

Short-term improvements focus on traffic calming and visibility enhancements. Measures include:

- Refreshed road markings
- Installation of additional signage warning drivers of pedestrian activity
- additional traffic calming
- Temporary interventions such as rubber build outs to test the effectiveness of reduced carriageway widths and improved pedestrian space.

### 3.2.2 All Souls Avenue – Medium to Long Term

Medium-term options include the:

- Introduction of raised speed tables to reduce vehicle speeds and prioritise pedestrian movement.
- Improved crossing facilities,

- Reconfiguration of parking bays to reduce obstructions to visibility.

These interventions would require a more detailed design process and potentially some minor construction works but would significantly improve the overall safety environment of the street.

### 3.2.3 All Souls Avenue – Long Term

A longer-term approach could involve a more significant reconfiguration of the street environment to prioritise residential access and active travel. This includes:

- Wider footways
- Increased planting,
- Raised junctions at side roads.

These changes would contribute to a calmer residential street environment and support wider sustainable transport objectives.

## 3.3 College Road – Road Closures

Road closures and public realm enhancements have been considered as potential options to reduce through traffic along College Road to improve safety and create a more pedestrian-friendly environment within the study area. Such interventions will help transform streets into spaces that prioritise community activity, walking, and cycling while still allowing essential access for residents and services.

These measures are typically implemented progressively to ensure that any impacts on traffic circulation and local accessibility can be appropriately assessed.

### 3.3.1 College Road– Short Term

Short-term options along College Road include temporary road closures or modal filters using bollards, planters, or temporary barriers along with effective

enforcement. These measures are relatively low cost and reversible, allowing the council to trial changes and collect feedback from residents and stakeholders.

These interventions can help reduce cut through traffic and create a quieter street with the study area, providing a more pleasant alternative walking route. The proposal will also help with providing valuable data on traffic displacement effects.

### 3.3.2 College Road – Medium Term

Medium-Term measures involve the installation of more permanent modal filters, improved public realm treatments, and enhanced landscaping features. Streetscape improvements additional planting, and seating areas to encourage community use of the space. These measures would require further design development and consultation but would deliver more durable improvements to the local environment.

### 3.3.3 College Road – Long Term

In the longer term, a comprehensive public realm scheme could be developed to significantly transform the character of the street environment. This could involve high-quality paving materials, integrated green infrastructure, improved lighting, and the creation of shared public spaces.

Such an approach would support long-term place-making objectives and enhance the overall attractiveness of the area for residents and visitors.

## 3.4 Proposed Active Travel England – Route and Area Check

As the study area is located within a predominantly residential urban environment where many journeys are relatively short in distance, there is strong potential for walking and cycling to play a greater role in local travel patterns, particularly for trips to nearby schools, bus stops, and local amenities.

The proposed improvements aim to enhance the comfort and safety of these journeys by addressing key barriers to active travel identified during the baseline assessment. Measures such as improved pedestrian crossings, traffic calming features, and clearer junction layouts can help reduce conflict between vehicles and vulnerable road users.

In addition, improvements to the public realm and additional street planting, can contribute to a more attractive walking environment. These changes may encourage greater use of active travel modes by making streets feel safer and more comfortable for pedestrians and cyclists.

Overall, the proposed interventions are expected to support increased levels of walking and cycling within the area while improving safety and accessibility for all users. The Active Travel England (ATE) Route and Area Check was undertaken to assess the expected performance of the proposed measures against the same criteria used to evaluate the existing conditions. This allows a direct comparison between the current network performance and the improvements that could be delivered through the proposed scheme (Table 3-1).

*Table 3-1: Existing and Proposed ATE Route Assessment Comparison*

| Criteria | Route 1 | | Route 2 | | Route 3 | |
|---|---|---|---|---|---|---|
| | Existing | Proposed | Existing | Proposed | Existing | Proposed |
| Safety | 32% | 57% | 21% | 42% | 40% | 80% |
| Accessibility | 50% | 79% | 80% | 100% | 80% | 100% |
| Comfort | 50% | 83% | 75% | 75% | 75% | 75% |
| Directness | 58% | 75% | 63% | 75% | 83% | 100% |
| Attractiveness | 33% | 33% | 33% | 67% | 42% | 67% |
| Cohesion | 63% | 75% | 50% | 50% | 50% | 100% |
| Overall | 39% | 61% | 34% | 54% | 49% | 83% |

The results demonstrate that the proposed interventions would lead to measurable improvements across several key active travel indicators, particularly in relation to safety, accessibility, and network directness. While the extent of improvement varies across the three assessed routes, the overall results indicate that the scheme would significantly strengthen the quality of the walking and cycling environment across the study area.

Across all routes, safety scores show notable improvement, reflecting the introduction of measures such as advisory cycle lanes, improved crossing facilities, traffic calming features and better junction layouts. For example, Route 3 shows the most significant improvement in safety performance, increasing from 40% under existing conditions to 80% under the proposed. This substantial increase reflects the corridor-wide benefits of improved pedestrian crossing opportunities, reduced vehicle dominance, and clearer allocation of space for cyclists.

Improvements are also evident in accessibility, where the proposed interventions provide a more inclusive and connected environment for pedestrians and cyclists. Routes 2 and 3 achieve accessibility scores of 100% under the proposed scenario,

indicating that the planned interventions significantly enhance the continuity and usability of the active travel network. These improvements are likely to be supported by better crossing provision, improved footway conditions, and clearer route legibility.

The directness of routes is also enhanced under the proposed scheme. Directness reflects the extent to which walking and cycling routes provide convenient and efficient connections between key destinations. The assessment indicates that Route 3 achieves a directness score of 100%, while Routes 1 and 2 both increase to 75%, suggesting that the proposed network provides more intuitive and continuous travel paths for active travel users.

In terms of comfort, the proposals maintain or improve on the overall user experience along the routes, particularly through the introduction of cycling facilities and reduced traffic conflict points. Route 1 shows a notable increase in comfort from 50% to 83%, indicating that the interventions could improve the perceived safety and usability of the corridor for cyclists.

The assessment also highlights improvements in attractiveness and cohesion, which reflect the overall quality of the street environment and the continuity of the active travel network. For example, Route 3 achieves a cohesion score of 100%, demonstrating that the proposed interventions successfully create a more integrated and legible network for walking and cycling.

When considered collectively, the results show that the proposed interventions could lead to clear improvements in the overall ATE route scores and would deliver a more coherent, accessible, and safer active travel network.

# 4. Conclusion

The interventions and measures identifies as part of this study aim to address the key issues identified during the baseline assessment while supporting Brent Council's wider objectives for sustainable transport and safer streets.

The proposed measures focus on improving road safety, enhancing conditions for active travel, and creating a more balanced street environment that better accommodates the needs of pedestrians, cyclists, public transport users, and motorists.

A phased implementation approach has been adopted to allow improvements to be delivered progressively. Short-term measures focus on relatively low-cost interventions that can be implemented quickly to address immediate safety concerns. Medium-term measures involve more substantial infrastructure improvements, while long-term options consider more comprehensive changes to the street layout and public realm.

Collectively, these interventions have the potential to significantly improve the safety, accessibility, and overall quality of the street environment within the study area. By prioritising active travel and reducing road danger, the identified interventions support a shift towards more sustainable travel behaviour and contribute to the creation of healthier and more liveable neighbourhoods.

## 5. Quality

It is the policy of Project Centre to supply Services that meet or exceed our clients' expectations of Quality and Service. To this end, the Company's Quality Management System (QMS) has been structured to encompass all aspects of the Company's activities including such areas as Sales, Design and Client Service.

By adopting our QMS on all aspects of the Company, Project Centre aims to achieve the following objectives:

- Ensure a clear understanding of customer requirements;
- Ensure projects are completed to programme and within budget;
- Improve productivity by having consistent procedures;
- Increase flexibility of staff and systems through the adoption of a common approach to staff appraisal and training;
- Continually improve the standard of service we provide internally and externally;
- Achieve continuous and appropriate improvement in all aspects of the company;

Our Quality Management Manual is supported by detailed operational documentation. These relate to codes of practice, technical specifications, work instructions, Key Performance Indicators, and other relevant documentation to form a working set of documents governing the required work practices throughout the Company.

All employees are trained to understand and discharge their individual responsibilities to ensure the effective operation of the Quality Management System.

Brent

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