

# Camden Transport Strategy

## Review of Progress since 2019 and Delivery Plan 2022/23 to 2024/25



### Appendix A – Annexes

**Annex A:** Scheme Monitoring Information

**Annex B:** Strategic and Local Targets – Updated

**Annex C:** Road Safety Analysis & Prioritisation

**Annex D:** Electric Vehicle Charging Point Action Plan Update

## ANNEX A: SCHEME MONITORING INFORMATION

A1 Table A1 below shows the outcomes for a selection of schemes where monitoring has been undertaken. Further details for each of the schemes listed below are available at <https://safetravelcamden.commonplace.is/proposals/decision-reports-and-monitoring-data> and in individual scheme decision reports

**Table A1: Monitoring Data for Individual Schemes**

SCHEME	OUTCOMES
<u>Hartland Road and Clarence Way Safe and Healthy Streets</u>	<ul style="list-style-type: none"> <li>• Decrease in motor traffic levels across all count sites except on Harwood Street (a separate scheme has since been taken forward on that street)</li> <li>• 65% increase in Lime bike use</li> <li>• Nitrogen Dioxide (NO<sub>2</sub>) levels were lower at all monitoring sites within the scheme area when comparing raw unadjusted data</li> </ul>
<u>Savernake Road Safe &amp; Healthy Streets</u>	<ul style="list-style-type: none"> <li>• An overall 8% decrease in motor traffic across all roads surveyed</li> <li>• A 21% average increase in Lime bicycle usage in the scheme area</li> <li>• An average 9% decrease in Nitrogen Dioxide (NO<sub>2</sub>) at the monitoring station close to Gospel Oak Primary School</li> </ul>
<u>Sandall Road Safe &amp; Healthy Streets</u>	<ul style="list-style-type: none"> <li>• An decrease in overall traffic levels in the scheme area</li> <li>• A 164% increase in Lime bike usage</li> <li>• An average reduction of 18% in Nitrogen Dioxide (NO<sub>2</sub>) concentrations when comparing the raw unadjusted data at Kentish Town Road</li> </ul>
<u>Red Lion Street and Dane Street Area Safe and Healthy Streets</u>	<ul style="list-style-type: none"> <li>• Motor vehicle traffic was lower on weekdays and Saturdays at all six sites where data is available</li> <li>• A 377% increase in Lime hire bike usage between Jan – May 2019 and Jan – May 2021 was recorded in the study area</li> <li>• An average decrease in Nitrogen Dioxide (NO<sub>2</sub>) levels of 29% was recorded at the Woburn Place monitoring station</li> </ul>
<u>Camden Park Road and Torriano Avenue Safe and Healthy Streets (bus priority and road safety scheme)</u>	<ul style="list-style-type: none"> <li>• 258% increase in Lime bike usage on Camden Pk Road and 262% on Torriano Avenue</li> <li>• Overall cycle flows on Camden Park Road increased by 122% on the average weekday and 318% on the average Saturday between pre and during trial scheme data</li> <li>• 15% reduction in traffic flows on Camden Pk Road, and 7% on Torriano Avenue on the average weekday, and 12% and 11% respectively on the average Saturday</li> <li>• Bus journey times for two routes (390 and 393) has been protected</li> </ul>

SCHEME	OUTCOMES
<u>Arlington Road Area Low Traffic Neighbourhood</u>	<ul style="list-style-type: none"> <li>• Reduction in motor vehicle levels, in total, in the scheme area</li> <li>• 60% average increase in Lime bicycle usage and 15% increase in total cycle flows</li> <li>• An average decrease in Nitrogen Dioxide (NO<sub>2</sub>) recorded at 18 out of 21 air quality monitoring sites</li> </ul>
<u>Prince of Wales Road (eastbound) cycle route</u>	<ul style="list-style-type: none"> <li>• 40% decrease in motor vehicle flows</li> <li>• 70% increase in cycle flows on Prince of Wales Road.</li> <li>• 684% increase in Lime bicycle usage on Prince of Wales Road</li> <li>• Reduction in Nitrogen Dioxide (NO<sub>2</sub>) at all monitoring sites, average decrease of 30%</li> </ul>
<u>St. Pancras Way cycle route</u>	<ul style="list-style-type: none"> <li>• 200% increase in cycle flows</li> <li>• Lime bicycle usage increase of 246%</li> <li>• Motor traffic levels and Nitrogen Dioxide (NO<sub>2</sub>) concentrations on St. Pancras Way increased</li> </ul>
<u>York Way cycle route</u>	<ul style="list-style-type: none"> <li>• Motor vehicle levels were recorded as having increased, but cycle flows on York Way also increased by 78%</li> <li>• Lime Bike usage has increased by 61%</li> </ul>
<u>Prowse Place Safe and Healthy Streets</u>	<ul style="list-style-type: none"> <li>• Reduced traffic levels on Bonny Street, Jeffreys Street and Ivor Street which form entry and exit routes to Prowse Place, and lower traffic levels recorded on Royal College Street</li> <li>• A 31% increase in Lime bicycle usage in the scheme area</li> <li>•</li> </ul>
West End Project – for details see <u><a href="#">here</a></u>	<ul style="list-style-type: none"> <li>• Traffic reductions on key north-south corridors: Tottenham Court Road (TCR), Gower Street and reductions at 9 of 11 count sites in total</li> <li>• Increases in cycling volumes on TCR but some reductions elsewhere in the project area</li> <li>• Reductions in road traffic collisions involving pedestrians in the project area</li> <li>• Reductions in NO<sub>2</sub> at all monitoring sites</li> </ul>

**Annex B – Strategic and local targets**

B1 The MTS outlines seven key outcomes which boroughs are expected to help deliver which are highlighted in the following sections. To ensure we are on track with delivering these outcomes the CTS includes a Performance Monitoring Plan (CTS Chapter 5) which comprises strategic targets which the Mayor has set each London borough. This includes an overarching target for 93% of all Camden residents’ trips to be made on foot, by bike or by public transport (sustainable, active, healthy travel) by 2041 from a baseline of 85% for the three years (average) 2014/15 to 2016/17, with interim milestones at 2021 and 2031. In addition, Camden has established several local targets which support the MTS outcomes and the overall mode share target, and which are also important for monitoring and assessing CTS objectives and our local priorities. Annex B reviews progress in meeting both our strategic and local targets. It also informs our Delivery Plan in terms of where increased effort is needed to ensure we are on track longer-term.

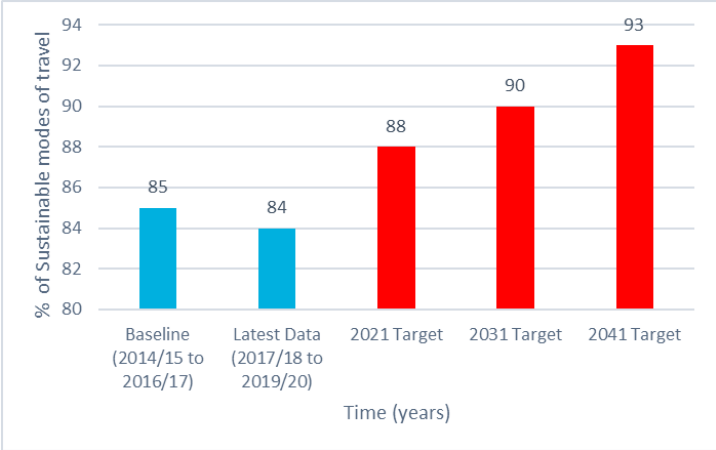
B2 TfL provides data for assessing strategic targets however, for many targets most recent data available is up to 2020 only, or earlier, which does not capture the impacts of schemes delivered during the latter two years of the last three year programme, 2019/20 – 2021/22. Scheme monitoring reports, discussed in Annex A, should be considered alongside the TfL data to help fill this gap. In addition, targets which rely on DfT traffic survey data have not been evaluated whilst these data sets are being reviewed further by Camden Officers. Updated information will be provided once that data has been confirmed.

**(A) Strategic targets**

MTS Outcome 1: Sustainable mode share

B3 The borough has a target to achieve a mode share of 88% of trips made by sustainable, active, healthy modes (walking, cycling and public transport) by 2021, 90% in 2031, and 93% in 2041. The latest data (2017/18 to 2019/20 – ie which does not include the majority of scheme delivery since the CTS was adopted in April 2019) shows a mode share of 84% which is down 1% on the baseline and is 4% behind the 2021 target, as shown in Figure B1 below.

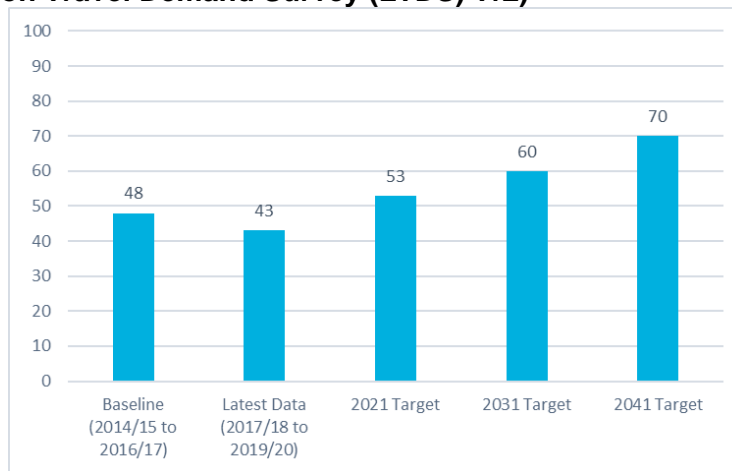
**Figure B1 Mode share**



**MTS Outcome 2: London’s streets will be healthy, and more Londoners will travel actively**

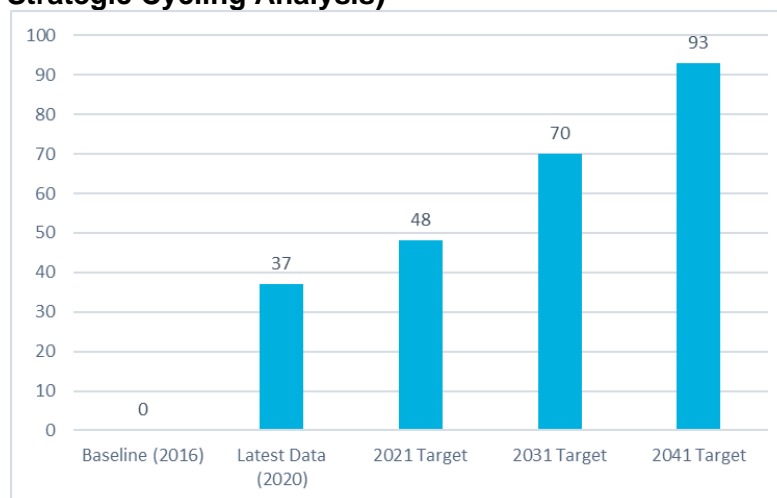
B4 The borough has a target for 53% of residents doing at least 20 minutes of active travel a day in 2021, rising to 60% in 2031 and 70% in 2041. The most recent data (2017/18 to 2019/20) shows that Camden has fallen below the 48% baseline to 43%. This latest data does not capture the impacts of schemes delivered over the full three-year period and, as noted in Section 2.49 of the main report, emerging data suggests that there has been strong growth in cycling at least once a month and once a week.

**Figure B2: Percentage of residents doing at least 20 minutes of active travel a day (Source: London Travel Demand Survey (LTDS) TfL)**



B5 A second target to meet this MTS outcome is for 48% of the borough’s population to be living within 400m of a strategic cycle network by 2021, rising to 70% in 2031 and 90% in 2041. The latest data shows Camden is 11% behind the 2021 target although Camden is on a positive upward trajectory, with a rise of 37% in 2020 on a baseline of 0% in 2016, as shown in Figure B3 below.

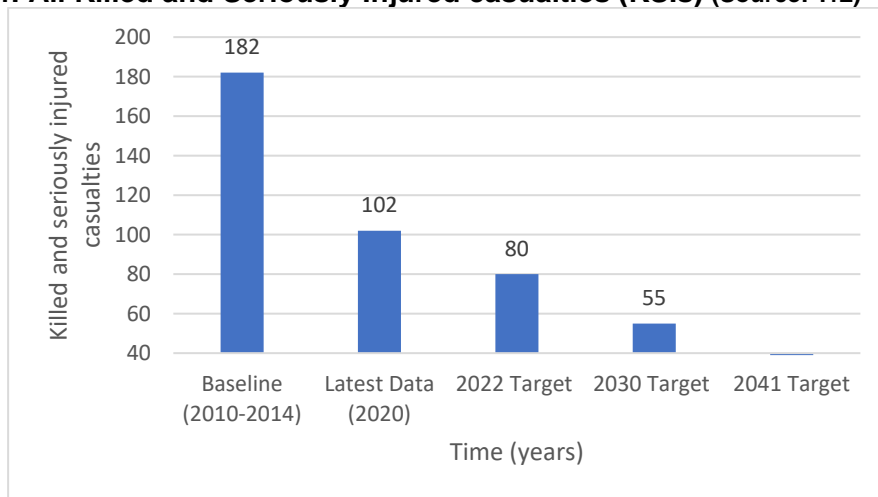
**Figure B3: Percentage of residents living within 400m of a strategic cycle network (Source: TfL Strategic Cycling Analysis)**



MTS Outcome 3: Vision Zero – deaths and serious injuries from road collisions to be eliminated from our streets

- B6 Camden aims to achieve a target of Zero Killed and Seriously Injured (KSIs) by 2041 – with interim targets of 80 KSIs by 2022 and 55 by 2030. The borough has made strong progress reducing KSIs from a baseline of 182 (2010-2014) to 102 (2020).
- B7 Since the introduction of the CTS in 2019, actual annual pedestrian KSIs have decreased, with a reduction of 34 KSIs between 2019 to 2020. Cyclists’ KSIs have also decreased with a reduction from 43 in 2019 to 40 in year 2020. However, more recent STATS19 data indicates upticks in pedestrian and cycle KSIs (see elsewhere in report for commentary)

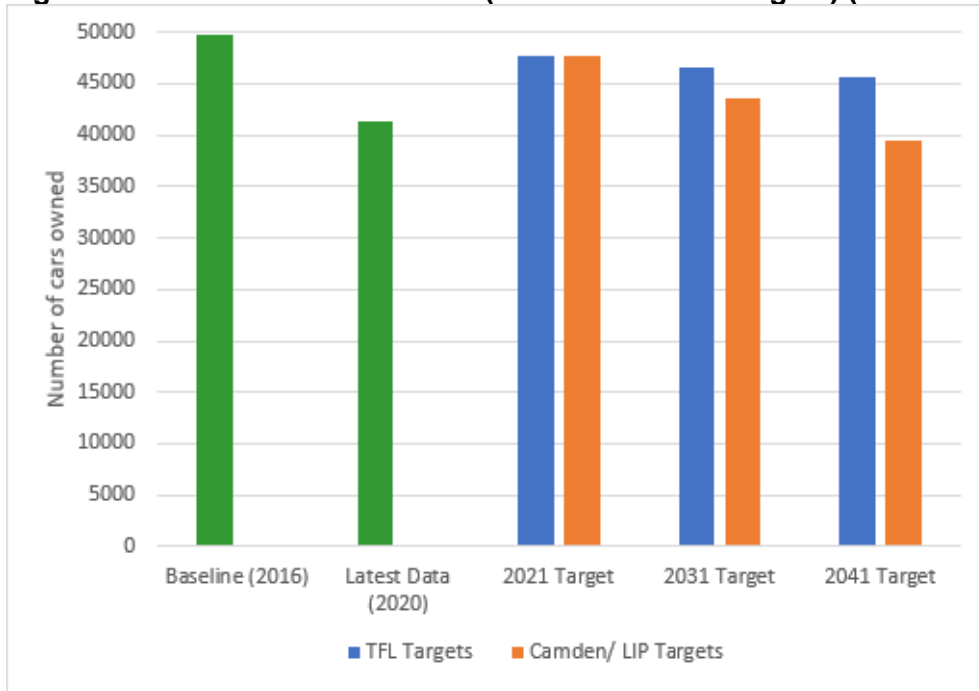
**Figure B4: All Killed and Seriously Injured casualties (KSIs) (Source: TfL)**



MTS Outcome 4: London’s streets will be used more efficiently and have less traffic on them

- B8 Camden has two strategic targets against this MTS Outcome. The first is to reduce annual vehicle kilometres driven in Camden: Camden has set a more ambitious target than the Mayoral one for this indicator and includes a 5-10% decrease in traffic levels by 2021, and a 20-25% decrease by 2041 (based on the 2016 baseline – please see Chapter 5 of the CTS). This data is still being assessed and will be published when confirmed information is available. Our local screenline data (see local targets) section indicates a reduction in motor vehicle trips of 30% between 2010 and 2021.
- B9 The second target is to reduce the number of cars owned by residents. Camden has also set a more ambitious target for this metric than that provided by the Mayor, and has already exceeded both our own target to 2031 and TfL’s target to 2041, ie a 16.1% reduction on the 2016 baseline as shown in Figure B5 below.

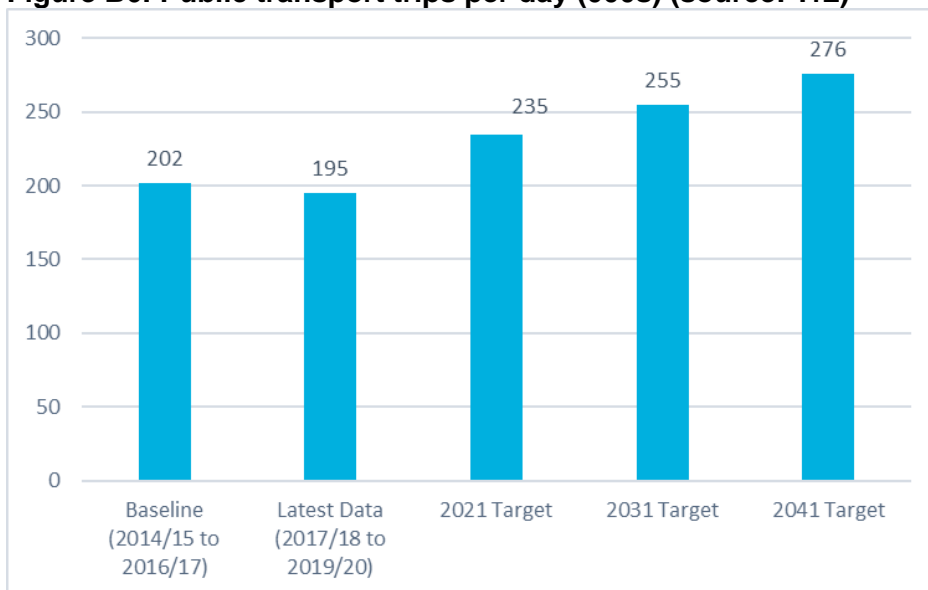
**Figure B5: Number of cars owned (TfL and Camden targets) (Source: DVLA 2020)**



**MTS Outcome 5: The public transport network will meet the needs of a growing London**

B10 Camden has a target to increase the total number of public transport trips made per day to 276,000 by 2041, although it should also be noted that, as in Figure 2.8 in the main report (mode share) overall public transport mode share is projected to fall in the same period due to proportionally larger projected growth in walking and cycling trips. The borough has seen a reduction in the total number of trips made by public transport on the 2014/15-2016/17 baseline and it is likely that the pandemic will impact on public transport use (compared to pre-pandemic figures) in future years.

**Figure B6: Public transport trips per day (000s) (source: TfL)**



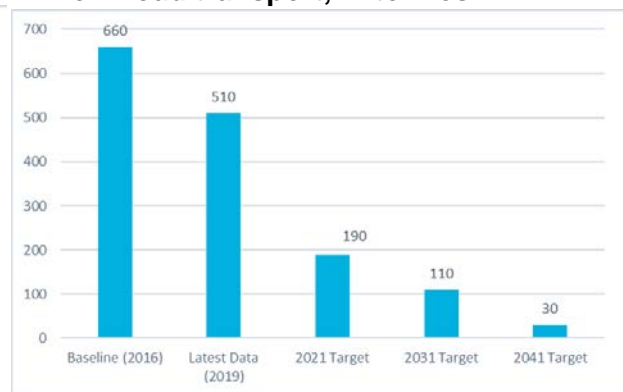
## MTS Outcome 6: London's streets will be clean and green

- B11 There are four strategic targets against this MTS outcome which focus on reducing emissions: carbon (CO<sub>2</sub>) – associated with climate change and Nitrogen Dioxide (NO<sub>x</sub>) and particulate matter PM<sub>10</sub> and PM<sub>2.5</sub> associated with pollution and poor air quality. As shown in Figures B8 to B10, Camden has achieved reductions in all four metrics: between 2016 and 2019, CO<sub>2</sub> emissions decreased by 4.8%, NO<sub>x</sub> by 22.7%, PM<sub>10</sub> by 13.7%, and PM<sub>2.5</sub> by 20%. However, the current trajectory shows that these reductions are behind the 2021 targets for CO<sub>2</sub> and NO<sub>x</sub>.

**Figure B7: CO<sub>2</sub> emissions (in tonnes) from road transport, in tonnes**



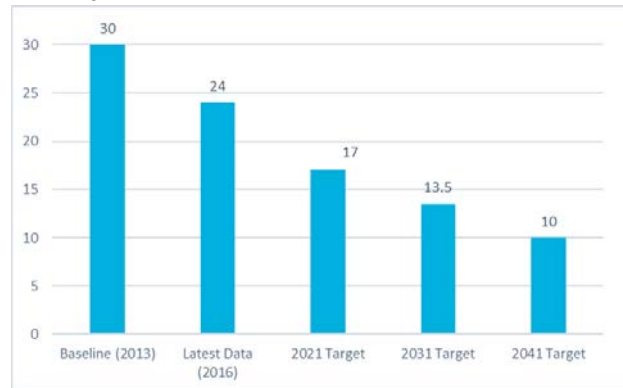
**Figure B8: NO<sub>x</sub> emissions from road transport, in tonnes**



**Figure B9: PM emissions from road transport (in tonnes)**



**PM<sub>2.5</sub>**



## MTS Outcome 7: Public transport will be safe, affordable, and accessible to all

- B12 The borough has a target to reduce the time difference between average journey time using the full network and the step-free network, to 5 minutes by 2041. The latest data (2020) shows a reduction of 3 minutes on the 2015 baseline of 12 minutes. At this current trajectory the borough would achieve its 2041 targets by 2031.

## MTS Outcome 8: Journeys by public transport will be pleasant, fast, and reliable

- B13 Camden has a target to increase average bus speeds to 8.1mph by 2041. The borough has seen an improvement in average bus speeds on the 2015 baseline



of 7.1 mph in 2015) to 7.7mph in 2020/21. However, we acknowledge that 2020/21 covers the first year of the pandemic which, due to three lockdowns and significant reductions in traffic volumes, would positively affect bus journey times. We will need to continue to monitor this target as traffic levels change in the borough, and ensure bus journey times are protected through bus priority measures on key routes.

### **(B) Local targets**

- B14 In addition to the strategic targets set by the Mayor and discussed in the sections above, Camden has also set targets to monitor progress with delivering CTS objectives using additional criteria. These are set out in the CTS and in the four Action Plans and assessed in Table B1 below.
- B15 Table B1 shows that we are making significant progress for some metrics: the proportion of residents' trips made on foot which is currently nearly 50%, exceeds both the 2021 and 2031 targets and very close to the longer-term target for 2041. The proportion of pupils' journeys to schools on foot or by scooter similarly exceeds both the 2021 and 2031 targets, as well as the longer-term target for 2041. Journeys to school made by bike have also increased - albeit from a very low base – and met the target for 2024/25. However, we will need to ensure that the level of journeys walked and cycled is maintained going forward, with interventions planned as part of the Delivery Plan, such as the Healthy School Streets programme, School Travel Planning activities and pedestrian improvements.
- B16 Motor traffic flows have also decreased: Camden annually monitors traffic flows around the borough (screenlines data) to assess levels of motor traffic on borough roads in support of this target, as shown in Table B2 (screenlines). Motor traffic levels reached their lowest levels in 2021. While 2021 data may similarly be impacted by the pandemic as well as changed working patterns with more people working from home, the screenlines indicate that there has been a continuous downward trend in motor traffic levels between 2010 and 2019, pre pandemic.
- B17 Car ownership levels are also decreasing: this is evidenced by the strategic target for the number of cars owned in the borough discussed above, but also our local target for the proportion of households without access to a car – currently at 69% (three year average 2016/17 – 2018/19) which is a 4% increase since the baseline. Most recent data shows a further 3% decrease in vehicles registered in the Borough between December 2020 and December 2021.
- B18 Current data also shows that we have also made progress with our target for total road casualties (KSIs and slights) which have reduced by over 30% on the baseline, and we are ahead of our 2021 target.
- B19 However, we are also falling behind on several key metrics: the proportion of residents' trips made by bike remains low at just over 2%, yet cycling more than any other mode has the potential to replace car driven trips. Healthy Streets Scorecard data suggests that despite this, Camden has the 7<sup>th</sup> highest cycling rate in London with 75 of adults cycling five times a week. Evidence from monitoring reports on schemes delivered to date (Annex A) shows that our safe, connected segregated cycle lanes are important to increasing the levels of cycling in the

borough. Proposals to continue with implementing the cycle network along with other transformational changes to encourage mode shift are therefore essential components of the new three year Delivery Plan.

B20 Although we have also made progress in reducing overall casualties, KSIs for pedestrians and cyclists particularly remain a challenge. Measures to address road danger and reduce casualties for these modes are similarly key elements of the Delivery Plan as set out elsewhere in these reports. As well delivering our cycle network, this includes measures focusing on those locations where KSIs have occurred, including junctions through, for example, our Safer Junctions Programme and working with TfL to address road danger on the TLRN.

**Table B1: CTS Local targets**

Indicator (Source)	Baseline	Baseline year	Short term target (see details)	Medium term target (2031)	Long term target (2041)	Current data
% residents' trips by bike (LTDS)	3.6%	2014/15 - 2016/17	7.5% (by 2024/25)	10%	15%	2.4% (2017/18 – 2019/20)
% residents' trips on foot (LTDS)	42%	2014/15 to 2016/17	44% (by 2021)	47%	50%	49.4% (2017/18 – 2019/20)
% residents' trips by car (LTDS)	13%	2014/15 to 2016/17	12% (2021)	8%	5%	13.5% (2017/18 – 2019/20)
% journeys to school by bike (STARs surveys)	2%	2014-2017	6% (by 2024/25)	8%	12%	6% (2021-22)
% journeys to school walking/ scooting (STARs surveys)	40%	2014-2017	43% (by 2021)	47%	50%	58% (2021-22)
% of schools with STARs accredited Travel Plans (STARs data)	43%	2017	50% (2021)	67%	75%	16% (2021-22)
Total road casualties (KSIs and slights) (STATS19)	1015	2014-2016	743 (by 2021)	403	199	708 (2021)
Cyclists KSI (STATS19)	22	Annual av 2014-16	14 (by 2024/25)	9	0	45 KSI (2019-2021)
Pedestrian Killed and Seriously Injured (STATS19)	31	Annual av 2014-16	25 (2021)	12	0	43 KSI (2019-2021)
Motor traffic flows (Camden screenline data)**	362,318	2017	Reductions to (and % reduction to baseline): <b>2021:</b> 344,202 - 326,086 (5%-10%) <b>2031:</b> 317,028 – 298,912 (12.5%-17.5%) <b>2041:</b> 289,854 – 271,739 (20% - 25%)			273,038 (2021) (17.5% reduction on 2017 baseline)
% Camden households who do not own a car (LTDS)	65%	2016/17	68% (2021)	76%	83%	69% (2016/17 – 2018/19 average – TfL)

**Table B2: Screenline data – traffic flows in Camden**

Mode	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2021	% change 2019-2021	% change 2010-2021	% of traffic flow 2021
<b>Cycle</b>	59,815	59,002	62,399	59,197	55,851	56,962	52,211	56,139	52,602	57,585	47,549	-17%	-21%	14.80%
<b>Motorcycle</b>	28,552	27,059	25,964	25,043	23,972	23,295	23,461	23,077	21,538	22,920	20,844	-9%	-27%	6.50%
<b>Car</b>	199,533	200,635	197,419	191,174	197,760	195,918	196,189	194,539	188,167	183,185	146,949	-20%	-26%	45.80%
<b>Taxi</b>	56,692	52,309	52,839	51,496	48,214	44,600	46,249	45,318	36,911	33,453	25,338	-24%	-55%	7.90%
<b>LGV</b>	74,461	71,586	64,339	61,934	67,345	67,772	64,941	66,142	68,571	65,863	58,018	-12%	-22%	18.10%
<b>OGV1</b>	12,877	10,698	17,650	17,820	12,400	11,897	17,795	14,496	11,162	10,034	7,569	-25%	-41%	2.40%
<b>OGV2</b>	1,698	2,164	2,875	2,271	2,153	2,503	2,722	2,581	2,169	2,196	2,469	12%	45%	0.80%
<b>Bus/coach</b>	17,805	17,019	16,982	17,735	16,536	16,601	15,840	16,165	15,192	13,206	11,851	-10%	-33%	3.70%
<b>TOTAL</b>	<b>451,431</b>	<b>440,471</b>	<b>440,467</b>	<b>426,670</b>	<b>424,231</b>	<b>419,548</b>	<b>419,408</b>	<b>418,457</b>	<b>396,312</b>	<b>388,442</b>	<b>320,587</b>	<b>-17%</b>	<b>-29%</b>	<b>100%</b>
<b>Total motor traffic</b>	<b>391,616</b>	<b>381,469</b>	<b>378,068</b>	<b>367,473</b>	<b>368,380</b>	<b>362,586</b>	<b>367,197</b>	<b>362,318</b>	<b>343,710</b>	<b>330,857</b>	<b>273,038</b>	<b>-17%</b>	<b>-30%</b>	<b>85.20%</b>

LGV Light Goods Vehicles

OGV1 and OGV2 Heavy goods vehicles

B21 In addition to the local targets set out in Table B1 above and in the CTS, targets for specific workstreams are also included in the Action Plans. Other than those captured in Table B1, these are assessed below.

**Table B3: Cycling Action Plan Targets**

Indicator (Source)	Baseline	Baseline year	Short term target 2024/25	Long term target (2041)	Current data
Cycle flows (annual screenline)	56,139	2017	2% increase per year		47,549 (2021)
% Cycling to work as main mode (TfL)	5%	2014/15 – 2016/17	10%	15%	7% 2016/17 – 2018/19)
% residents doing any cycling at least once a month (Sport England)	18.8%	2014-15	23%	30%	22.6% (2021)
Secure on- and off-street cycle spaces	n/a		Minimum of 50 secure spaces a year		Average 270 spaces per year to 2022 - total 810 spaces in three years
% residents with access to a bike in the household	37%	2016-17	42%	50%	44% (2018/19)
No of cycle hire bikes in borough	200 DBH  1,820 Santander docking points	2018	400 DBH  2,000 Santander docking points	TBC	Average 1000 DBH bikes (Sept 2022)  1,812 docking points
Adult cycle training	We will aim to train 150 adults a year to Bikeability Level 1; 150 adults to Level 2 and 100 a year to Level 3				Av per year (2019 - 22) Level 1 327 Level 2 171 Level 3 39 *
Child cycle training	We will aim to train a minimum of 400 children to Bikeability Level 1 and 300 children to Level 2				Av per year 2019-21 Level 1 432 Level 2 156 Level 3 1 *  In addition 1,480 trained through the Community Cycle Programme in 2021-22

\* cycle training data is affected by the pandemic restrictions in 2020-2021

B22 Progress has been made on almost all of our local Cycle Action Plan targets: the percentage of residents cycling to work as a main mode of travel and doing any cycling at least once a month has increased since the baseline and we are on track to meet 2024/25 targets for both these indicators. And residents with

access to a bike is ahead of target (although again there is no data on this metric for the most recent years).

B23 Safe and secure cycle storage at home to enable greater take up of cycling is also key to increasing the levels of cycling in the borough and we continue to deliver our cycle parking programme at pace. As the data shows we have made significant gains in cycle parking provision, primarily through our bike hangar programme, greatly exceeding our targets. However, demand continues to be very high which is reflected in the new 3 year programme.

B24 The number of dockless hire bikes in the borough also continues to rise well above target and as they become more popular. . And cycle training to give people confidence and to support safe cycling are also on target, although it should be noted that the face-to-face restrictions during the pandemic affected training provision and take up for a period of time.

B25 Table B4 below assess targets in the Walking and Accessibility Action Plan.

**Table B4: Walking and Accessibility Action Plan targets**

Indicator (Source)	Base-line	Base-line year	Short term target 2021	Long term target (2041)	Current data
% Camden residents who do any walking at least once a week	88%	2014/15	90%	93%	76.6% (2021)
Walking to usual work place (TfL)	32%	2014/15 – 2016/17	34%	37%	28% (2016/17 – 2018/19)
Pedestrian skills training for children per year	800	2017	850	900	523 (2020-21)**

\*\* No training was provided April - July 2021, due to the COVID-19 restrictions.

B26 Unfortunately we are not on course to meet local Action Plan targets for walking, even though Camden has met, and exceeded, the overall mode share for walking. It is highly likely that some of the indicators in Table B4 have been affected by the pandemic in 2020 and 2021 when travel and work patterns changed significantly. Never the less the new 3 year Delivery Plan contains multiple infrastructure and Smarter Travel initiatives that will seek to ensure more and safer walking in the Borough, and to help meet some of the key targets noted above.

### Other information

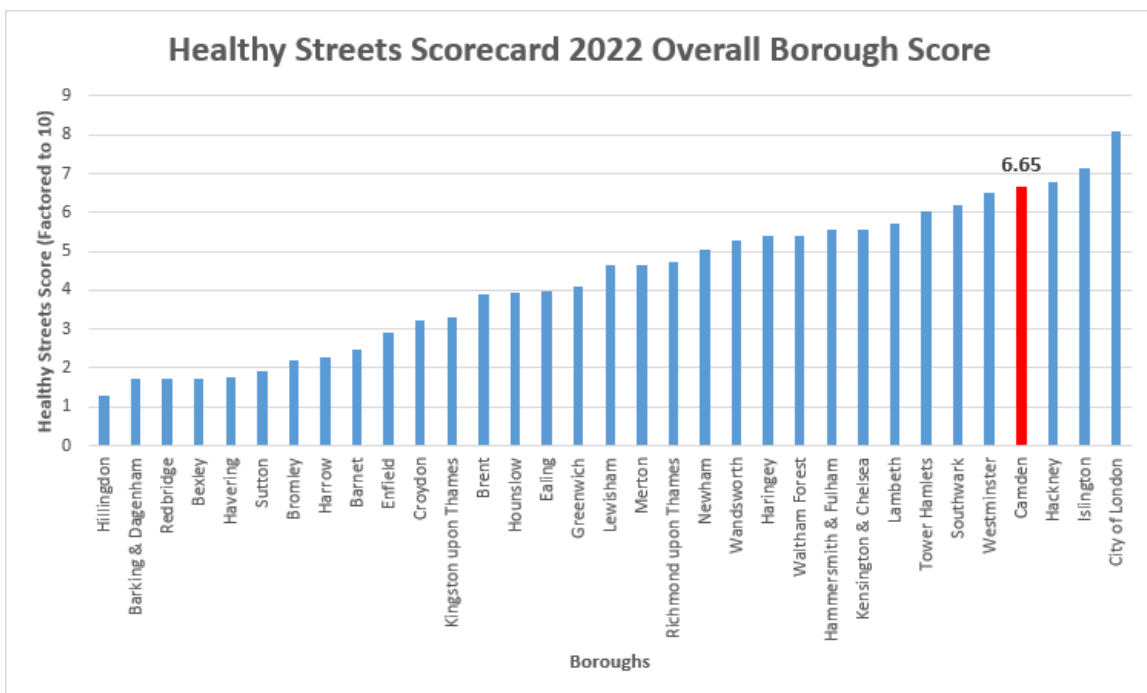
B27 The Healthy Streets Scorecard is an independent assessment of London boroughs' performance against a range of criteria which reflect the Mayor's Healthy Streets framework. The assessment provides a useful comparator to benchmark Camden's performance against other boroughs. The score card is based the following indicators some of which are already captured in our Strategic or Local targets:

- Sustainable Mode share
- Active Travel Rate

- Road Collision Casualties
- Car Ownership Rates
- Low Traffic Neighbourhoods
- 20mph Speed Limits
- No. Controlled Parking Zones
- Physically Protected Cycle Track
- School Street Provision

B28 Camden is one of the top performing boroughs overall, ranked 4<sup>th</sup> out of 33, as shown in Figure B5. We are performing particularly well against some indicators. For example 7.8% of streets in Camden have physical cycle separation from traffic and pedestrians. Camden is within the top five ranked boroughs for this indicator on the Healthy Streets Score card rating, and it is above the Greater London Average (4.1% of streets with physically protected cycle tracks). Less progress to date, than some of Boroughs, has been made with respect of measures such as through-traffic restrictions, and plans to add new schemes to 2025 in that regard are shown in the Delivery Plan.

**Figure B5: Healthy Streets Scorecard aggregated rating**



## Annex C– Road Safety Analysis and Prioritisation

- C1 The Road Safety Action Plan (RSAP) developed alongside the Camden Transport Strategy in 2019 included priority locations for road safety improvements based on the analysis of STATS19 data. As part of a proactive approach to addressing road risk and in line with the Vision Zero approach, the process used historic reported collision data to understand trends and patterns in road danger risk and identify locations where collisions are likely to occur in the future.
- C2 The prioritisation process has been refined for the new 3 year programme, 2022/23 – 2024/25 and includes an assessment of a wider range of factors beyond the core Stats 19 data, provided by RedOptima consultants. It captures indicators around the physical environment that may contribute to road risk such as road conditions, road layout and geometry, traffic speed and driver characteristics all of which can impact on road danger. This has been used to identify links, nodes and areas which present the greatest need for further road safety interventions. The updated plan also takes account of the priority locations provided by TfL as part of the proposed new three-year LIP delivery plan.
- C3 A comparison of the outputs from all three prioritisation methodologies shows that the highest priority locations align across all three approaches. This provides confidence in the Council's original approach based on Stats 19 data alone, and that introducing improvements in the focus areas will reduce road risk.
- C4 The Council's approach using Stats 19 data considers three years of collision data in the borough, between 2017 and 2019, to update the previous analysis which separates out links, nodes and cells:
- **Links** – streets or sections of streets;
  - **Nodes** –all main junctions on the road network
  - **Cells** – subdivision of the land created from a 500x500m grid based on Ordnance Survey, that capture all remaining roads that do not form part of links or nodes
- C5 The collision types that were identified as having a statistically significantly higher chance (than average) of resulting in a KSI casualty are:
- Number of Fatal and Serious collisions (KSI)
  - Number of collisions resulting in Vulnerable Road Users (VRU) casualties (pedestrians, cyclists and motor cyclists)
  - Number of collisions occurring during hours of darkness
  - Number of collisions involving vehicles 'overtaking moving vehicle / overtaking in the nearside lane'
  - Number of collisions involving 'parked/stationary vehicles' in the contributory factors



- C6 The most recent data shows that ‘turning right’ is no longer a significant contributory factor in collisions that have a higher chance of resulting in a KSI. On the other hand, ‘collisions occurring in the hours of darkness’ and collisions involving ‘parked/stationary vehicles’ are confirmed to be a frequent cause of KSIs in the Borough.
- C7 Note that both Camden borough roads and the Transport for London Road Network (TLRN) managed by TfL are included in this prioritisation exercise. The overall ranking for links, nodes and cells is based on the highest priority rank given across all categories. For example, if a link scores HIGH in ‘VRU Collision/km’, MEDIUM HIGH in ‘collisions during dark hours/km’ and MEDIUM in all other categories, its overall ranking is defined as HIGH.

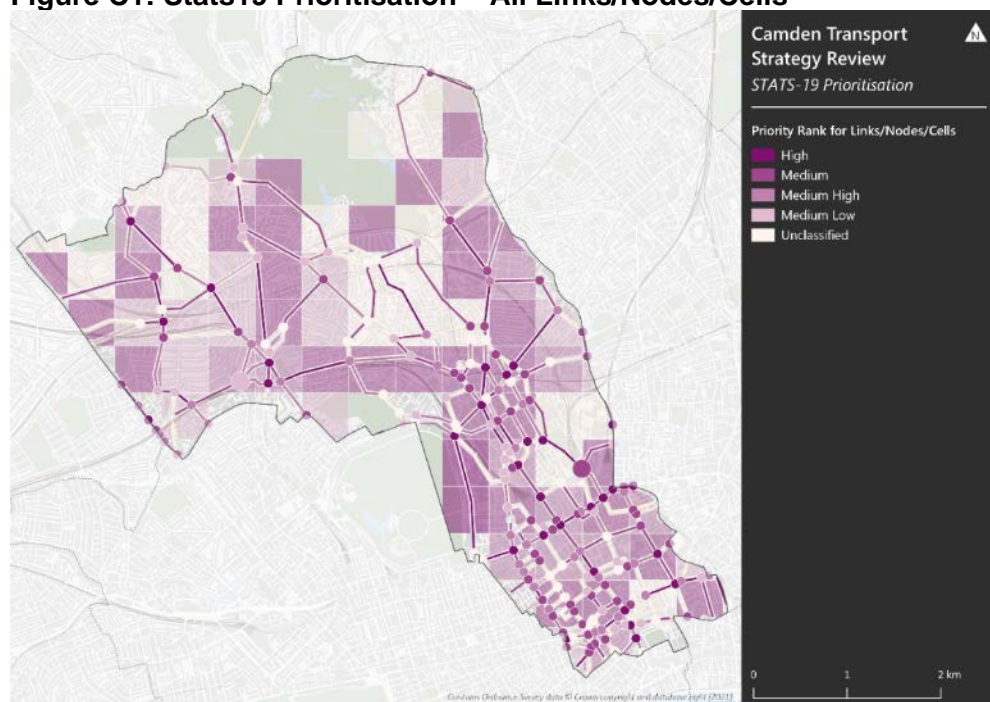
### Prioritisation results

- C8 The following sections investigate each of the three prioritisation approaches and results from Stats 19, RedOptima and TfL, and compares and contrasts them.

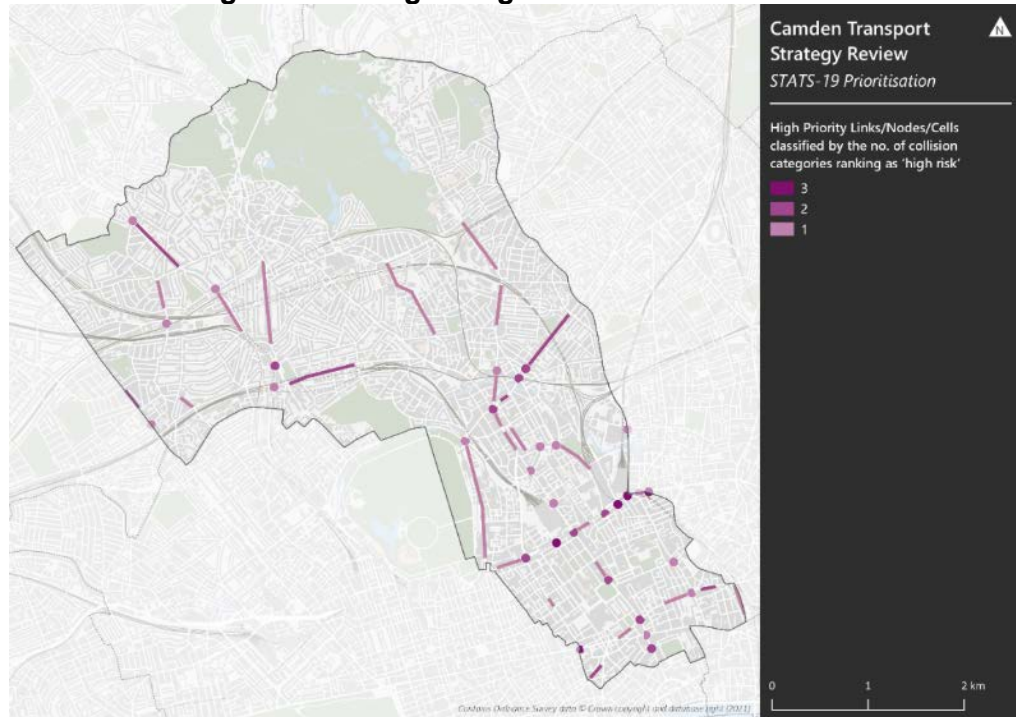
#### Stats 19 data

- C9 The map in Figure C1 plots the locations of the links, nodes and cells based on their priority level from Stats 19 data. A further map in Figure C2 shows the links, nodes and cells that are categorised as High Priority only.

**Figure C1: Stats19 Prioritisation – All Links/Nodes/Cells**



**Figure C2: Stats19 Prioritisation – High Priority Links/Nodes/Cells by number of categories ranking as high**



C10 Table C1 below provides the overall ranking of each link, node and cell in Camden, categorised as High Priority under Stats 19 data.

**Table C2: Stats19 Prioritisation – High Priority Links/Nodes/Cells (2017 – 2019)**

Node/Link/Cell	No. of categories ranking as per Priority Rank
Node 2713 (ST GILES CIRCUS (OXFORD STREET/TOTTENHAM COURT ROAD))	3
Node 2749 (KINGS CROSS ROAD/PENTONVILLE ROAD/BORO BDY)	3
Node 2094 (PANCRAS ROAD/EUSTON ROAD)	3
Node 2747 (KINGS CROSS (EUSTON ROAD/YORK WAY/GRAYS INN ROAD))	3
Node 2090 (EUSTON ROAD/GORDON STREET (ATS))	3
Node 2139 (CAMDEN ROAD/ST PANCRAS WAY)	2
Node 2129 (CAMDEN HIGH STREET/PARKWAY (LTE STATION))	2
Node 2093 (EUSTON ROAD/JUDD STREET)	2
Link 1155 (KILBURN HIGH ROAD)	2
Node 2062 (THEOBALDS ROAD/SOUTHAMPTON ROW)	2
Node 2088 (EUSTON ROAD/TOTTENHAM COURT ROAD)	2
Node 2137 (ROYAL COLLEGE ST/CAMDEN RD)	2
Cell 528500/183000	2
Node 2026 (KINGSWAY/GREAT QUEEN STREET)	2

Cell 528500/182500	2
Link 988 (CAMDEN ROAD)	2
Link 978 (CAMDEN ROAD)	2
Node 2091 (EUSTON ROAD/EVERSHOLT STREET)	2
Link 1071 (FINCHLEY ROAD)	2
Link 869 (SHAFTESBURY AVENUE)	2
Link 1020 (ADELAIDE ROAD)	2
Link 1092 (CLERKENWELL ROAD)	2
Node 2153 (FINCHLEY ROAD/AVENUE ROAD (SWISS COTTAGE))	2
Node 2053 (WOBURN PLACE/RUSSELL SQUARE)	2
Node 2073 (THEOBALDS ROAD/GRAYS INN ROAD)	1
Node 2801 (EVERSHOLT STREET/LIDLINGTON PLACE)	1
Link 1090 (PANCRAS ROAD)	1
Node 2748 (PENTONVILLE ROAD/CALEDONIAN ROAD/BORO BDY)	1
Node 2723 (KILBURN HIGH RD/BRONDES BURY RD/BORO BDY)	1
Node 2024 (KINGSWAY/HIGH HOLBORN)	1
Link 1066 (KENTISH TOWN ROAD)	1
Node 2208 (FINCHLEY ROAD/FORTUNE GREEN ROAD)	1
Link 934 (THEOBALDS ROAD)	1
Node 2808 (EVERSHOLT STREET/PHOENIX ROAD)	1
Link 1007 (ABBEY ROAD)	1
Node 2068 (GRAYS INN ROAD/GUILDFORD STREET)	1
Node 2171 (KENTISH TOWN ROAD/CAMDEN STREET)	1
Node 2113 (CROWDALE ROAD/CAMDEN STREET)	1
Link 1087 (BLOOMSBURY WAY)	1
Link 1028 (SOUTHAMPTON ROAD-MALDEN RD)	1
Link 983 (CAMDEN HIGH STREET)	1
Link 1049 (WEST END LANE)	1
Link 1184 (FARRINGDON ROAD)	1
Node 2184 (FINCHLEY ROAD/LYMINGTON ROAD)	1
Link 913 (WOBURN PLACE)	1
Link 1036 (KENTISH TOWN RD(CAMDEN ST-CAMDEN HIGH ST))	1
Link 1195 (ALBANY STREET)	1
Link 1039 (FINCHLEY ROAD)	1
Node 2126 (PRINCE ALBERT ROAD/PARKWAY/GLOUCESTER GATE)	1
Link 1002 (FITZJOHN'S AVE)	1
Link 1065 (HIGHGATE ROAD)	1
Link 1207 (EUSTON ROAD)	1
Node 2156 (FINCHLEY ROAD/ADELAIDE ROAD)	1
Link 969 (CAMDEN HIGH STREET)	1
Node 2181 (IVERSON ROAD/WEST END LANE)	1

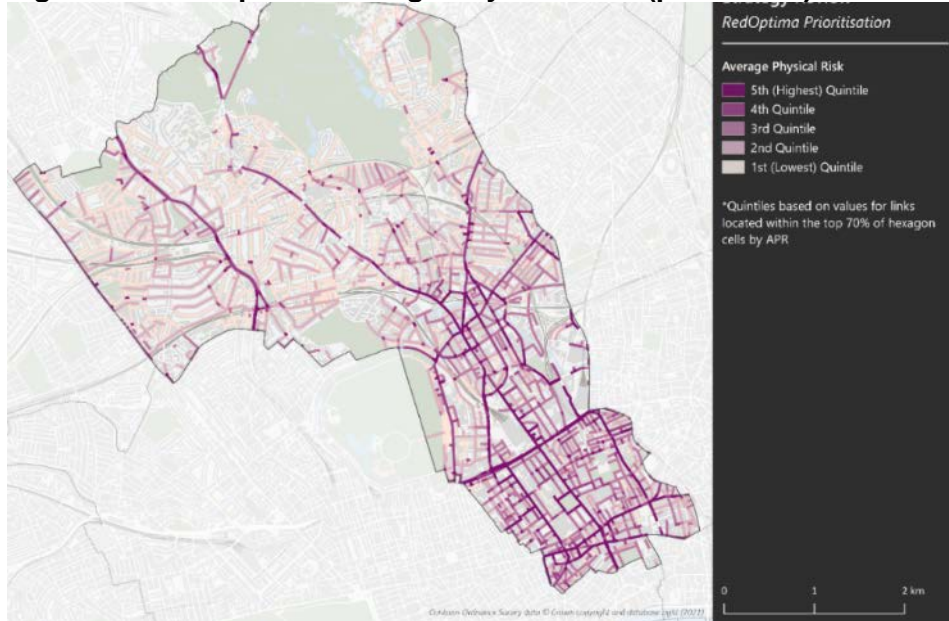
Link 900 (TOTTENHAM COURT ROAD)	1
Node 2116 (ROYAL COLLEGE STREET/PANCRAS ROAD/ST PANCRAS WAY)	1
Link 948 (EUSTON ROAD)	1
Link 1118 (BAYHAM STREET)	1
Link 1142 (YORK WAY.)	1
Node 2746 (YORK WAY/COPENHAGEN STREET)	1

### RedOptima Analysis

- C11 The RedOptima model provides a set of estimates of Average Physical Risk (APR) for links, nodes and hexagons cells across the road network using two different approaches:
- **Collision APR** based on historical records of collisions across the network (available for those links, nodes and hex cells where a collision has occurred in the past);
  - **Pre-emptive APR** based on a combination of historical records of collisions and other factors that influence road safety and contribute to increasing the risk of collisions (available for all links, nodes and hex cells composing the UK road network)
- C12 The main factors included in this assessment of risk are: visibility, speed, road conditions, distance between intersections, surrounding vegetation, night/day risk, weather, sun glare, and microclimate. These are inferred from a combination of satellite imagery, weather data and telematic traffic data.
- C13 Figure C3 shows the result of the analysis. In general, the links and nodes forming part of the SRN and TLRN show a higher physical risk. Those in the south of the borough in particular have higher values than those in the north (with the exception of Finchley Road). A similar pattern applies to secondary borough roads which also predominate in the south of the borough.



**Figure C3: RedOptima Average Physical Risk (processed)**

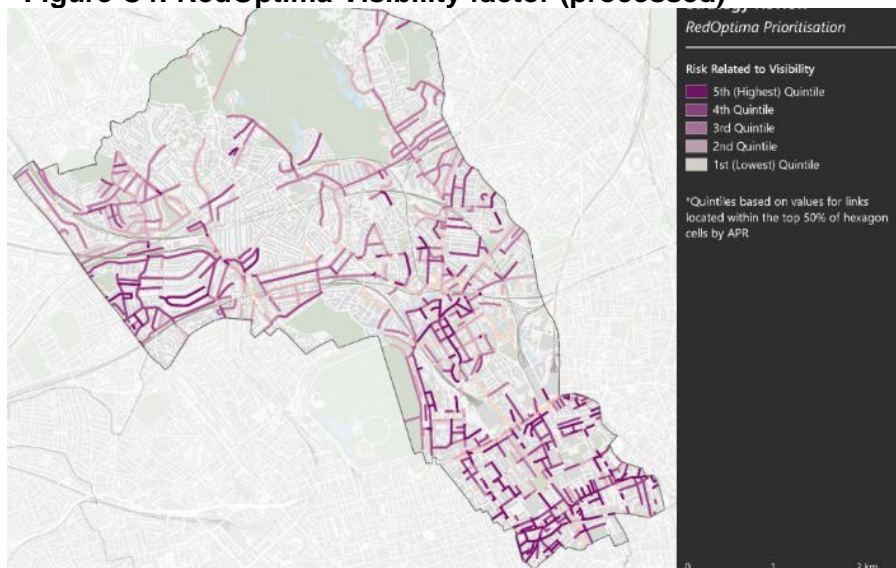


C14 In addition to the Average Physical Risk, as in Figure C3 above which combines multiple indicators, Figures C4 and C5 show the 'visibility' and 'speed' parameters individually

#### Visibility

C15 Visibility takes into account proximity of buildings, trees, street furniture, parked cars and other visual obstacles, as well as the gradient of the road. Figure C4 shows the top 50% of links and nodes where visibility is a factor in road risk: Figure C4 shows that the high priority links are clustered around the more densely built-up areas in the south of Camden (such as Seven Dials, Bloomsbury and Camden Town). A number of links with medium to high visibility factors are residential roads, particularly around West Hampstead and Fortune Green.

**Figure C4: RedOptima Visibility factor (processed)**



## Speed

- C16 The 'Average speed' parameter looks at likely vehicle speed on each link as governed by the speed limit, road curvature, and surrounding congestion. For example, lower congestion levels and straighter roads make speeding more likely and thus increase the risk of speed-related collisions, according to the RedOptima analysis.
- C17 Figure C5 shows the top 50% links and nodes by average speed factor: In line with the assumptions, straighter roads and those with a lower likelihood of congestion show the highest risk of speed on road safety. Among the streets with the highest such risk are Albany Street and Eversholt Street; Fortress Road and Highgate Road on the eastern side of the Borough; Spaniards Road and Heath Road in Hampstead; and most of the long and straighter residential links around South and West Hampstead.
- C18 Although some of these streets where speed is a risk are not included in the Delivery Plan due to other prioritisation criteria, the Council monitors and addresses speed as a separate road safety programme, as outlined in the CTS Road Safety Action Plan. This has included annual speed surveys on a core list of over 130 streets in the borough to identify streets where additional measures may be needed to ensure compliance. Additionally, streets highlighted by residents and Ward Members as a concern are also monitored. Due to funding constraints this approach ceased in the last two years of the 3 year programme. However, the new Delivery Plan will continue to support this approach to ensure that we address speed which is a major risk factor in collisions.

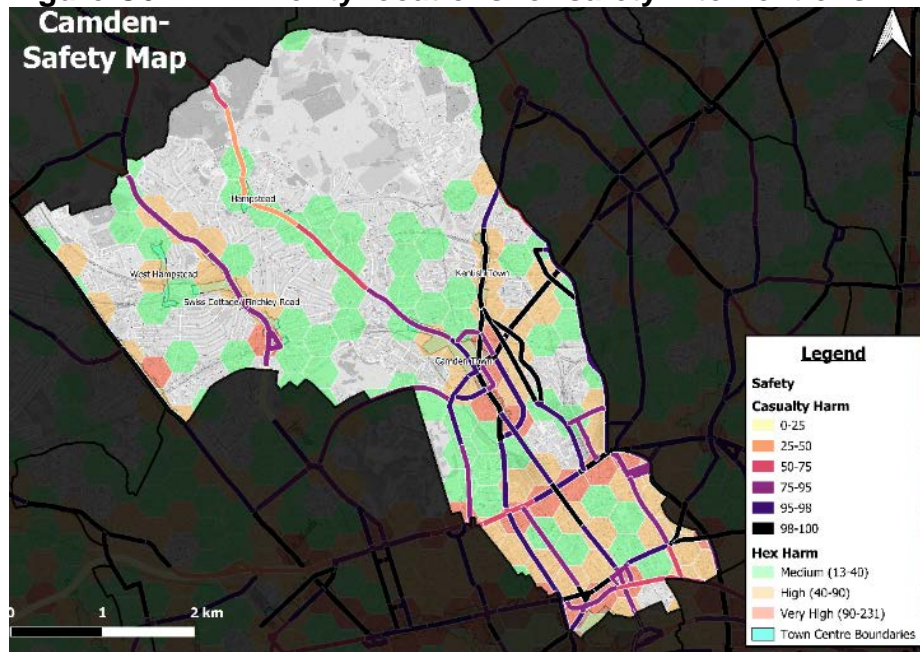
**Figure C5: RedOptima Average Speed factor (processed)**



Transport for London (TfL)

- C19 TfL has provided LB Camden with a map of priority locations for road safety interventions. It shows the level of road risk for each segment on the major road network, based on casualties weighted by injury severity (1 January 2016 to 3 April 2020), and vehicle flows. The map also shows 'Total Harm' data in the hexcells and covers the same time period as used for the casualty harm rate data. However, unlike the corridor casualty harm data, it represents the summation of weighted casualty severities and does not take into account vehicle flows or other data. Whilst harm is largely located on major roads, this should be used as a guide and care should be taken when looking at a hexcell which contains major roads.
- C20 The TfL mapping shows that the south of the borough and Camden Town have the highest levels of "casualty harm" - a similar pattern to the Stats 19 and RedOptima mapping.

**Figure C6: TfL Priority locations for safety interventions**



### Summary of priority locations

- C21 Table C2 below compares the outputs for the 20 top nodes, links and cells for each of the three approaches discussed above (Stats 19, RedOptima Average Physical Risk, and TfL mapping), and shows that they broadly align.
- C22 As noted in the table, several locations are on the Transport for London Road Network – TLRN (red routes), which is managed by TfL. We will continue to lobby TfL for road safety improvements at these locations, including rolling out 20mph speed limits, protected cycle lanes, pedestrian upgrades and junction enhancements. Some locations on the TLRN are planned for improvement in the coming three year period, such as on TfL's section of Camden High Street.

C23 Some locations identified as priorities on borough roads are not included in the Delivery Plan for 2022-2025 where Camden and/or TfL have recently introduced substantial improvements, such as at Southampton Row/Theobalds Road and at Euston Road/Judd Street junctions. We would therefore expect to see improved casualty in the future but we will keep these sites under review and amend them if needed. KSI data and analysis are one of many criteria used to prioritise new schemes, along with other methodologies discussed in this report. This means that several locations listed in the table below will be captured in the Delivery Plan as part of other, wider schemes. Where they are not captured in the 22-25 programme, they may well come forward in the future 3 year programme beyond that.

**Table C2: Assessment of Stats 19, Red Optima and TfL priority road safety locations**

Priority Rank	Description	Stats 19 priority	Red Optima priority	TfL priority
<b>LINKS</b>				
1	Kilburn High Road	High	High	High
2	Camden Road (TLRN)	High	High	High
3	Camden Road (TLRN)	High	Medium High	High
4	Finchley Road (TLRN)	High	Medium High	High
5	Shaftesbury Avenue	High	High	High
6	Adelaide Road	High	Medium	N/A
7	Clerkenwell Road	High	High	High
8	Pancras Road	High	Medium High	Medium High
9	Kentish Town Road	High	Medium High	High
10	Theobalds Road	High	High	High
11	Abbey Road	High	Medium	N/A
12	Bloomsbury Way	High	Medium High	High
13	Southampton Road/Malden Road	High	High	Medium High
14	Camden High Street (TLRN)	High	High	High
15	West End Lane	High	Medium	N/A
16	Farringdon Road (TLRN)	High	Medium High	Medium High



17	Woburn Place	High	High	High
18	Kentish Town Road/Camden High Street	High	High	High
19	Albany Road	High	Medium High	Medium High
20	Finchley Road (TLRN)	High	High	Medium High
<b>NODES</b>		<b>Stats 19</b>	<b>RedOptima</b>	<b>TfL</b>
1	St Giles Circus/Oxford St/Tottenham Crt Rd	High	High	High
2	Kings X Rd/Pentonville Rd (TLRN)	High	High	High
3	Pancras Rd/Euston Rd (TLRN)	High	High	High
4	Euston Rd/York Way/Grays Inn Rd (TLRN)	High	High	High
5	Euston Rd/Gordon Street (TLRN)	High	High	High
6	Camden Rd/Pancras Way (TLRN)	High	High	High
7	Camden High St/Parkway (TLRN)	High	High	High
8	Euston Rd/Judd St (TLRN)	High	High	High
9	Theobalds Rd/Southampton Row	High	High	High
10	Euston Rd/Tottenham Crt Rd (TLRN)	High	High	Medium High
11	Royal College Street/Camden Road (TLRN)	High	High	High
12	Kingsway/Gt Queen St	High	High	Medium High
13	Euston Road/Eversholt St (TLRN)	High	High	High
14	Finchley Rd/Avenue Rd (TLRN)	High	High	Medium High
15	Woburn Place/Russel Square	High	High	High
16	Theobalds Rd/Gray's Inn Rd	High	High	Medium High
17	Eversholt St/Liddington Place (TLRN)	High	High	High
18	Pentonville Road/Caledonian Rd (TLRN)	High	High	High
19	Kilburn High Rd/Brondesbury Rd	High	High	High

20	Kingsway/High Holborn	High	High	Medium High
<b>CELLS</b>		<b>Stats 19</b>	<b>Red Optima</b>	<b>TfL</b>
1	Regent's Park (North West)	High	High	Medium High
2	Regent's Park (South West)	High	High	Medium High
3	Holborn & Covent Gdn (west)	Medium High	Medium High	High
4	Bloomsbury (central)	Medium High	Medium High	High
5	King's Cross (east)	Medium High	Medium High	High
6	Bloomsbury (east)	Medium High	High	High
7	Swiss Cottage (triangle)	Medium High	Medium High	High
8	St Pancras Somerstown	Medium High	Medium High	High
9	Swiss Cottage (west)	Medium High	High	Medium High
10	Regent's Pk/Mornington Crescent	Medium High	High	High
11	Fortune Green (north east)	Medium High	Medium High	High
12	Bloomsbury (west)	Medium High	High	High
13	Canteloves (south east)	Medium High	High	High
14	Kentish Town (east)	Medium High	Medium High	High
15	Fortune Green (North west)	Medium	Medium High	High
16	Bloomsbury (south-west)	Medium	Medium High	High
17	Holborn Covent Garden (north-east)	Medium	Medium high	High
18	Canteloves (north-west)	Medium	High	High
19	Frogna & Fitzjohns (north-east)	Medium	Medium	High

20t	St Pancras Somerstown (south-east)	Medium	Medium High	High
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## **Annex D: Electric Vehicle Charging Point Action Plan Update**

### **1.0 INTRODUCTION**

1.41 This document provides an update on what elements of the Electric Vehicle Charge Point Action Plan (a daughter document of the CTS) have been delivered over the past three years (2019/20 – 2021/22). It also sets out the planned delivery from 2022/23 to 2024/25 to support our aspiration to develop a comprehensive network of electric vehicle charge points (EVCPs) that both responds to existing demand for EV infrastructure and provides for and accelerates the uptake of cleaner vehicles in the future.

### **2.0 REVIEW OF DELIVERY 2019/20 – 2021/22**

2.2 In addition to setting Camden's ambitions for EV charging infrastructure, the EVCP action plan sets out Action Areas for the period 2019/20 – 2021/22. These are in the following categories:

- Residential EVCPs which are aimed at meeting the current demand for residential EV charging and planning for future growth;
- Rapid charge points for Taxis under which Camden would contribute to TfL's targets for EVPCs for taxis;
- Commercial/ Freight fleets (rapids and fast charge points) which is aimed at encouraging the use of EVs among freight vehicles;
- Neighbourhoods of the Future Low Emission School Zones where electric vehicle charge points would be provided to reduce pollution in the vicinity of 23 schools in Frognal/Fitzjohns; and
- Communications to promote Camden's EVCP provision and encourage the uptake of EVCPs.

2.3 Assessment of our delivery in relation to these action areas shows that we are broadly on target. For charge point delivery, the EVCP action plan committed to installing, up to 2021/22:

- A minimum of 88 lamp column and 40 fast charge points on the public highway;
- A minimum of 5 lamp column and 5 fast charge points on private land, including school car parks, Camden Housing Estate land and depots; and
- Rapid charge points in taxi ranks in the borough.

2.4 The number of charge points that we have delivered for the three years between 2019/20 and 2021/22 is set out overleaf. These have been delivered as part of stand-alone electric vehicle charge point schemes and also as part of other healthy streets schemes, on the public highway.

## Lamp Column



A total of 247 lamp column charge points have been installed which is almost three times the minimum target. In addition to installing these charge points, we have dedicated parking spaces adjacent to 25 of them to electric vehicle charging only at all times to ensure that they are continually available for charging. A programme to dedicate the remaining bays is being rolled out

## Sub-surface Fast Charge Points



We have installed 60 fast charge points under a trial scheme for a new subsurface charging technology, where the charge point connector sits flush with the footway and therefore has no impact on the streetscape when the charger is not in use. An example is shown above.

## Fast Charge Points



We have delivered 146 fast charge points which is more than three times the minimum target.

## Rapid Charge Points

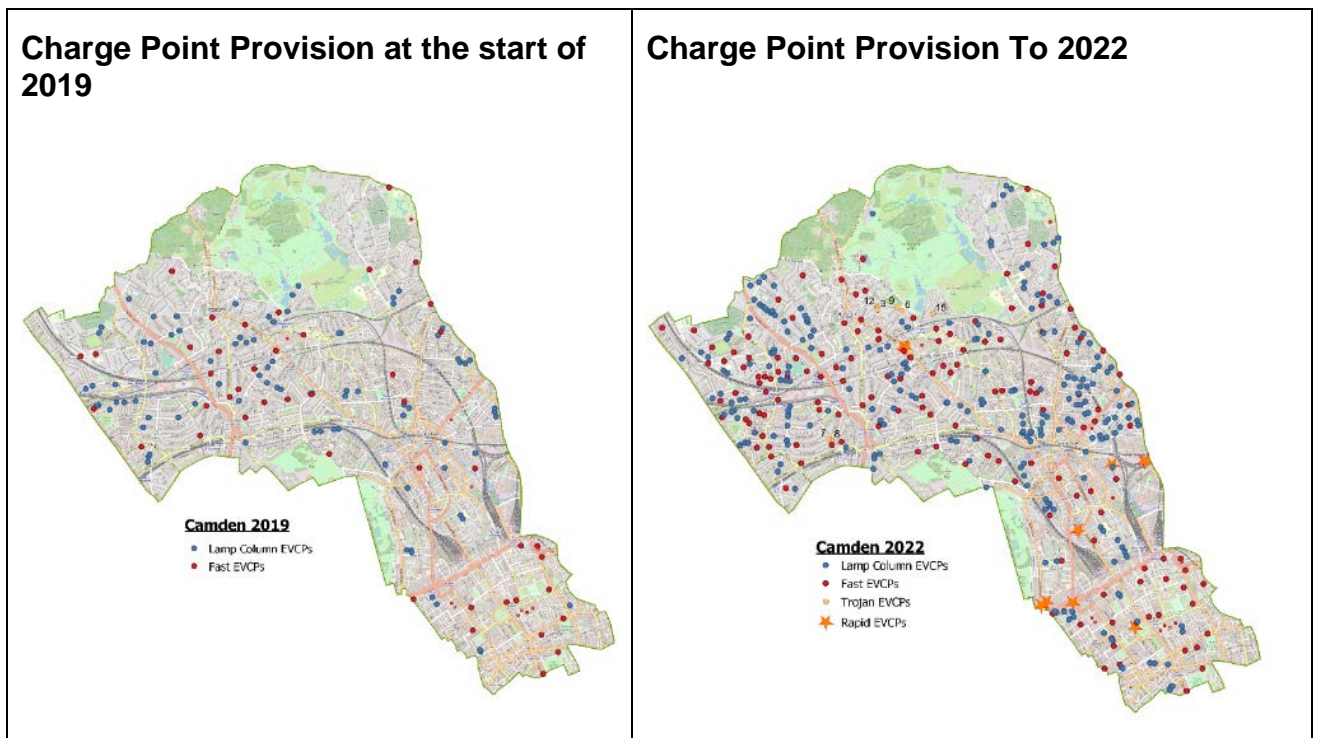


We have installed 9 rapid charge points with 5 of these for the exclusive use of taxis and 4 open to the public.

2.5 The maps in Figure 1 overleaf show the provision of charge points in 2019 prior to the adoption of EVCP action plan and the provision to date, which

demonstrates the growth in delivery to date. There are now close to 500 EVCPs, in total, on public highway in the Borough.

**Figure 1: Comparison maps of charging points in Camden 2019 v 2022**



2.6 It should be noted that there have been challenges in installing charge points in off street locations mainly due to constraints in funding. However, recently central government funding guidance has been clarified, and clearly states that it can be used for local authority owned off street locations such as housing estate land and other local authority owned car parks. This provides enhanced opportunities moving forwards.

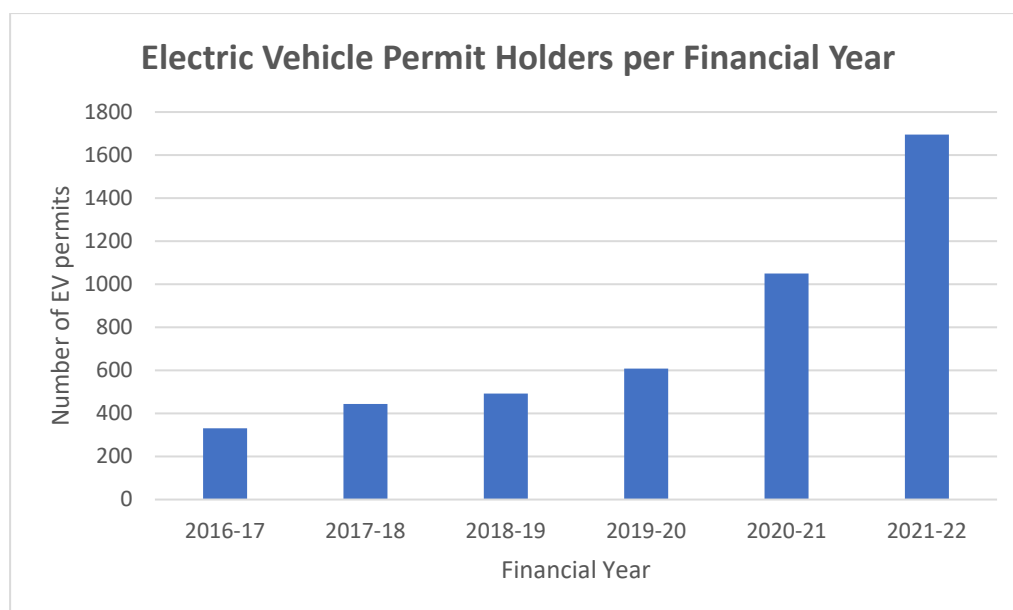
2.7 Funding challenges have also impacted on our ability to deliver rapid charge points due to the high costs of each unit.

### **3.0 ACTIONS FOR THE 2022/23 – 2024/25 DELIVERY PLAN PERIOD**

3.1 In addition to the factors set out in Chapter 3 of Appendix A that have been considered in formulating the next three year delivery plan, the following factors have also been taken into consideration which relate specifically to electric vehicles, and which suggest there will be very strong demand/uptake of EVs, and therefore need for EVCPs in Camden, moving forward:

- In July 2021, the government announced that between 2030 and 2035, new cars and vans can only be sold if they have significant zero emission capability, which would include some plug-in and full hybrids;
- There is a steep growth in electric vehicle ownership among our resident permit holders and in the number of requests we are receiving for EVCPs as shown in the graph and table overleaf respectively.

**Figure 2: Number of EV Permit Holders Per Year in Camden**



**Table 1: Number of Charge Point Requests Per Year in Camden**

Year	No. of EVCP Requests
2018	23
2019	193
2020	288
2021	359
2022 (up to Oct)	220

3.2 To ensure that we continue to (i) meet the needs of existing EV owners, (ii) to respond to likely future demand, and (iii) to encourage uptake of EVs over the next three financial years, in alignment with aspirations set out in the CTS and Climate Action Plan and Clean Air Action Plan, the following additional actions will be undertaken in the period up to 2024/25 (alongside the ongoing ones which can be viewed in the EVCP Action Plan, April 2019):

- I. Complete the process of dedicating all the parking spaces adjacent to lamp column charge points to electric vehicle charging only;
- II. Install a minimum of 240 fast charge points up to 2024/25 (a minimum of an average of 4 in every ward per year);
- III. Install a minimum of a further 9 rapid charge points by 2024/25;

- IV. Install dense numbers of charging points along single/clusters of streets (with a minimum of 120 fast charge points across those locations) that also result in the electrification of a minimum of 15 car club bays
- V. Take advantage of opportunities to install EVCPs both as “stand alone” schemes and as of wider Healthy Streets Schemes, including as part of “micro-mobility hubs” being rolled out across the Borough and;
- VI. Increase EVCP provision on the Council’s off-street land including housing estates, car parks and depots to address current gaps in provision and assist with the greening of relevant Council fleets



