



# **Bruce Grove West Green LTN**

**High Level Transport Assessment**

# Introduction

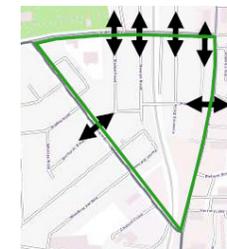
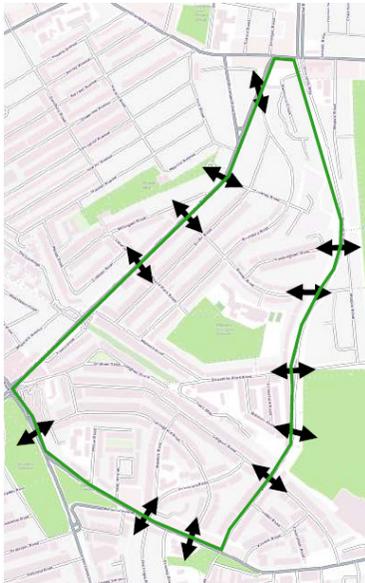
- This document provides a brief summary of the potential traffic impacts resulting from the implementation of the Bruce Grove West Green LTN
- As it is impossible to predict the impacts of the LTN, two analyses have been developed, based on two assumptions
  - The LTN does not have any impact on driver behaviour (worst-case)
  - The LTN has similar impact as that of schemes implemented to date
- The analysis mostly focuses on the impact on boundary roads (those that remain open to through traffic). Traffic volumes on the internal roads are expected to reduce, as they will become access-only

## Data used

- Data from 2019 was used, as any traffic data following the outbreak of the Covid-19 pandemic was deemed not representative of typical traffic conditions.
- A telematics (mobile phone / black boxes) dataset was used, as it could separate local car journeys (those start or end in the area) from non-local ones (drivers who travel straight through without stopping).
- The sample set includes approximately 7% of all private cars on the roads. The counts were uplifted based on real counts to estimate total volumes
- The analysis undertaken has focused on the busiest hours in the day (8-9am and 5-6pm)

# Through traffic

- The study focuses on traffic which drives into and out of one of the areas below within a 5 minute period (non local traffic)



In 2019, there were 500 vehicles doing this between 8-9am, and 1,700 between 5-6pm

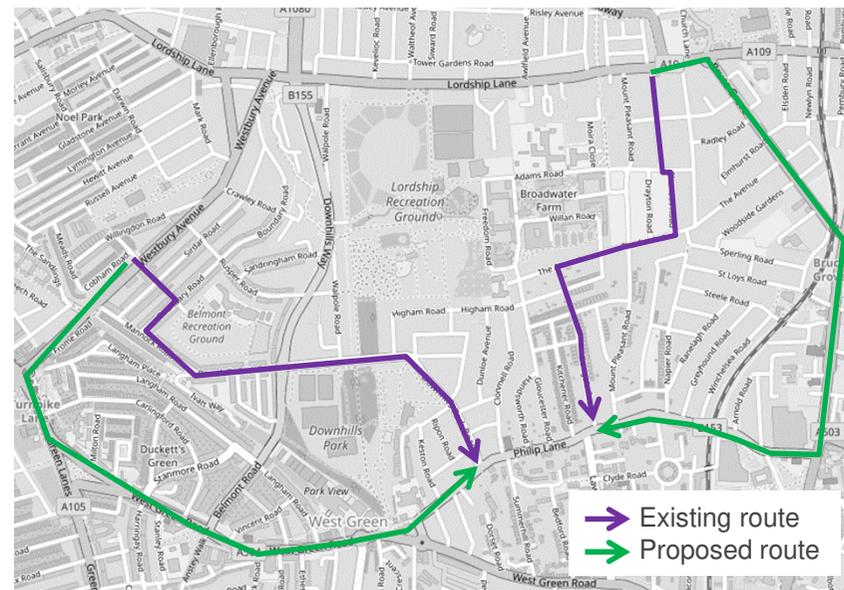
# Through traffic

- The images below show the % of traffic that is non-local in the PM peak



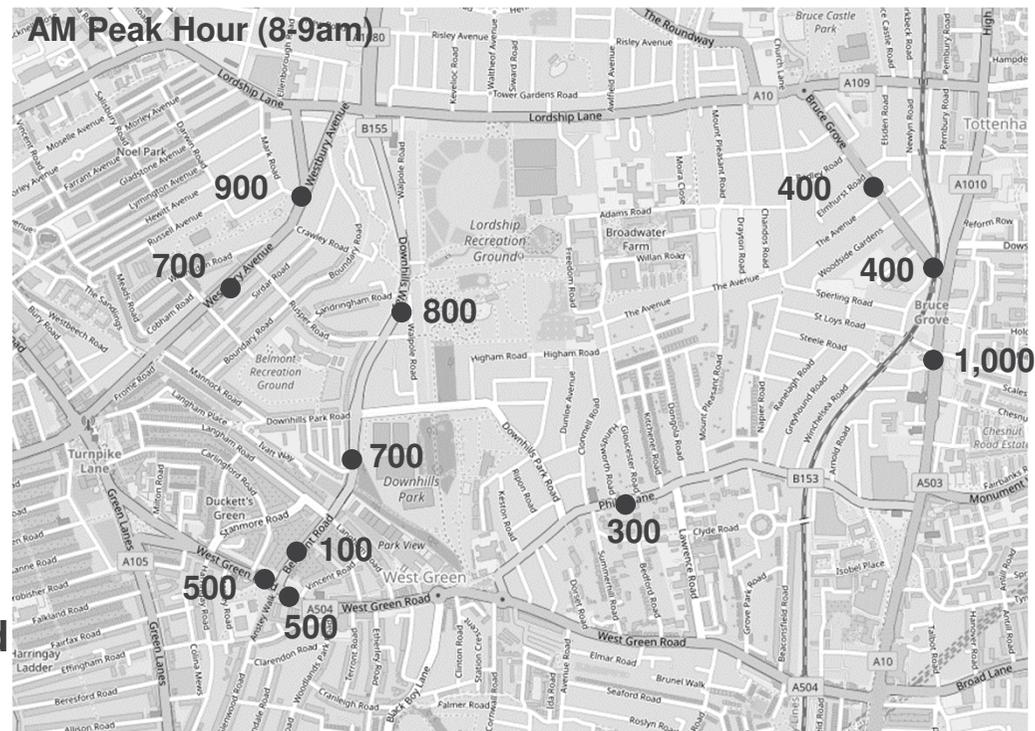
# Reassignment

- For each journey recorded in 2019, we have assumed the most likely new route they will take once the LTN is in place. The trip is reassigned (diverted) via that route.
- In reality, it is likely that a proportion of these trips will either no longer take place (working from home), be done by other modes (bus, foot, cycle), be done at other times of the day (not in the peak hour) or take place elsewhere in the network



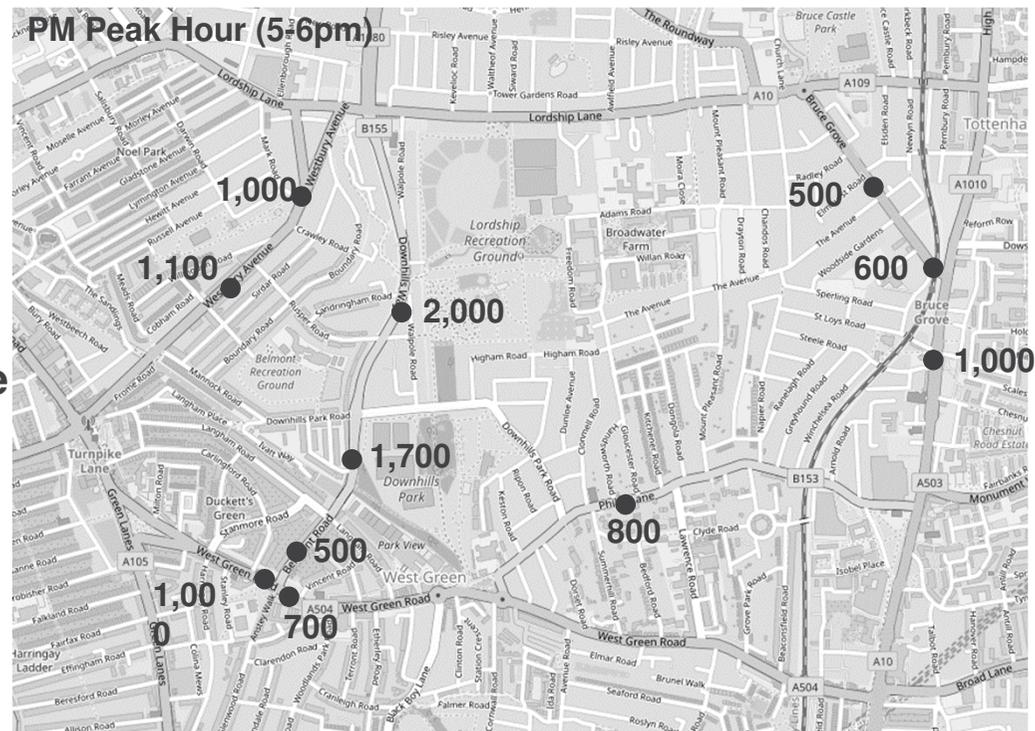
# Baseline Values (2019 traffic volumes)

- The image on the right shows 2019 traffic flows between 8-9am
- There are noticeable differences between different sections of the same road, particularly on Belmont Road/Downhills Way, where many vehicles currently use Langham Road to avoid the signalised junction



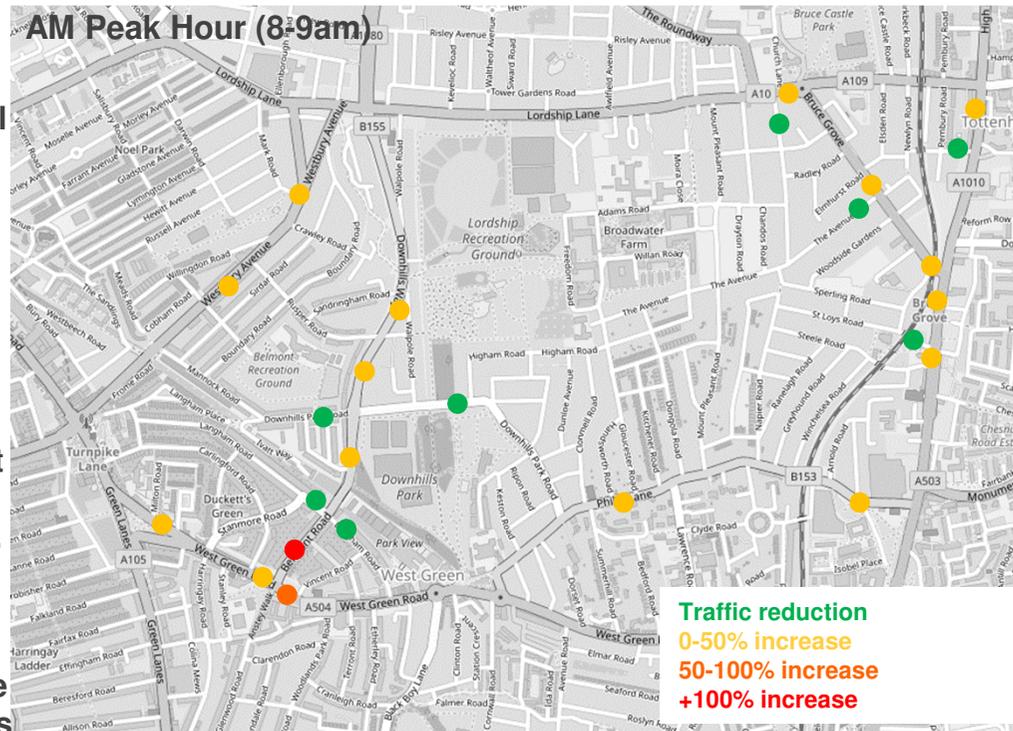
# Baseline Values (2019 traffic volumes)

- The image on the right shows 2019 traffic flows between 5-6pm, which are much higher than the AM peak ones
- A similar pattern takes place along Belmont Road/Downhills Way as in the AM peak



# No Behaviour Change Reassignment

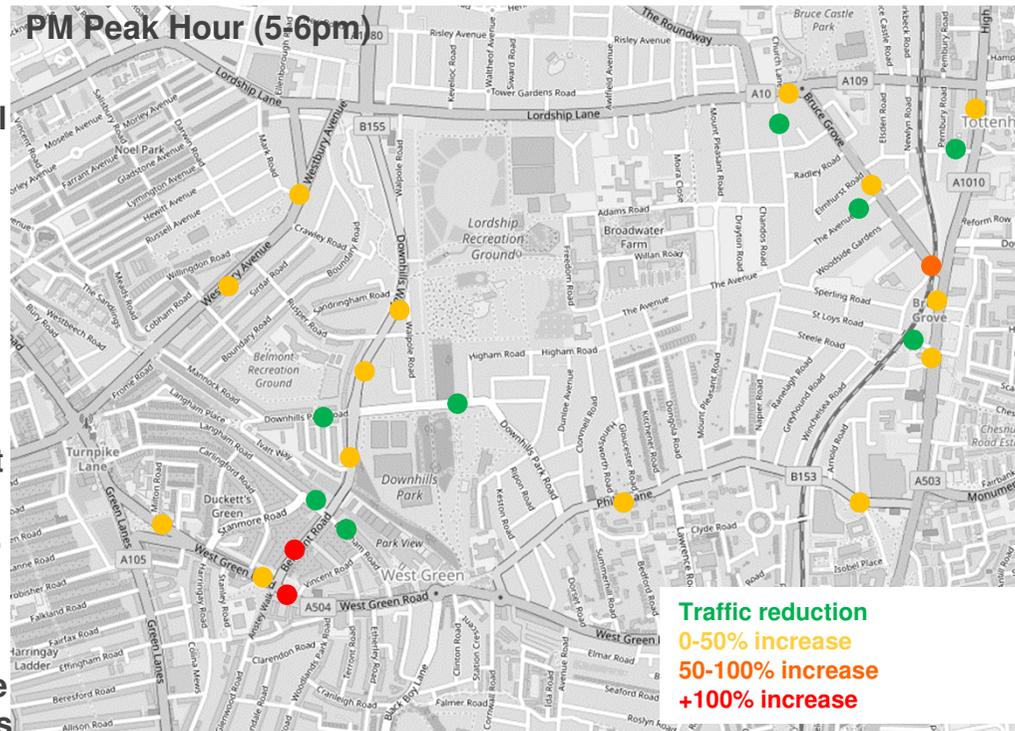
- This “worst-case scenario” assumes that, with the LTN in place, people will continue driving exactly the same journeys they did in 2019, just via a new route (the closest available one)
- The demand for travel along different sections of roads could vary as shown on the right. It is worth noting that the greatest increase in demand takes place on the section of Belmont Road with the lowest baseline flows, bringing it in line with Downhills Way.
- In reality, several of these roads are already close to capacity and will not be able to accommodate this increase in demand. As a result, several drivers will be re-routed further afield



N.B. Hourly change in traffic demand in the PM peak (5-6pm)  
% increase with respect to 2019 baseline

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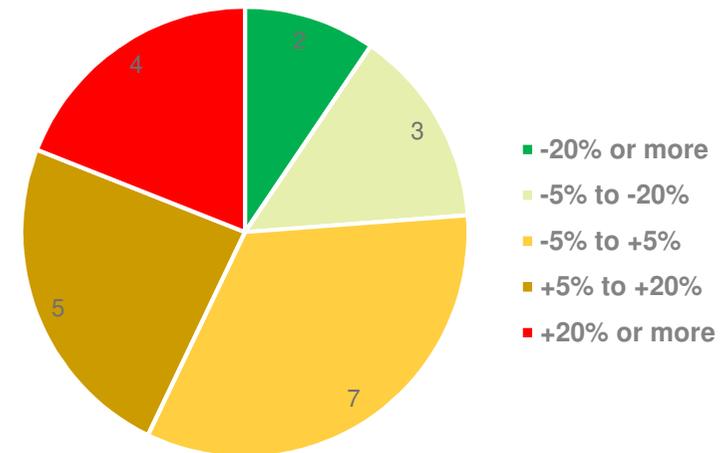


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# Impact based on similar schemes

- Evidence from LTN schemes across London shows that, after 6 months, significant behaviour change takes place, mitigating the increase in demand on boundary roads
- After 6 months, traffic volumes on boundary roads have seen a mixed picture (see graph on right)
  - On average, traffic volumes **increased by 3%** compared to before the trial
  - In the worst case, traffic on one road **increased by 32%**
  - In the best case, traffic on one road **reduced by 31%**
  - Daily traffic volumes on internal roads **reduced by 50%**, on average

Recorded Increase on Boundary Roads

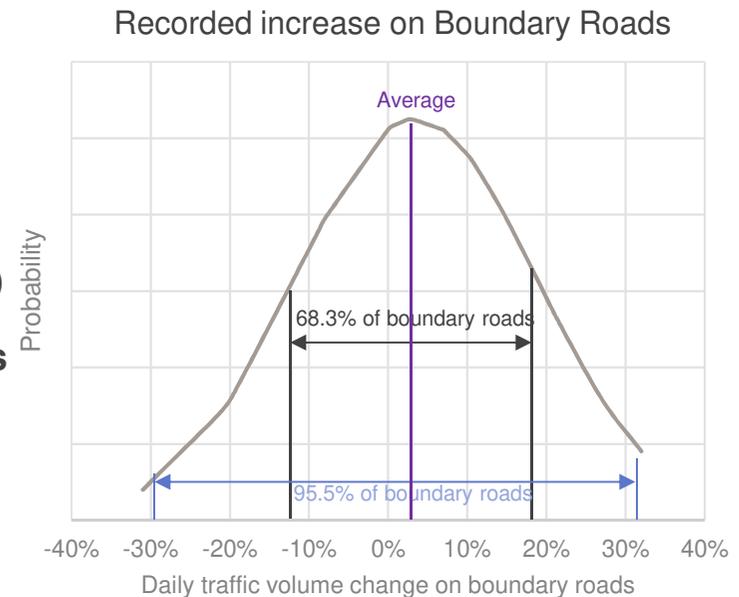


N.B. Data based on 6 months monitoring reports across 6 trial schemes, for a total of 21 boundary roads. Data has been adjusted to account for underlying changes in traffic volumes due to covid-19

The 6 schemes are: Walthamstow Village, St Peter's, Canonbury East, Railton, Oval and Tulse Hill

# Impact based on similar schemes

- It is impossible to predict how people will change their travel behaviour as a result of the LTN or of other changes (covid restrictions, road works)
- However, evidence from other schemes shows that the changes in traffic volumes on the boundary roads are very different to what would be predicted by simple reassignment (scenario 1)
- In almost 70% of cases, traffic on boundary roads experienced **increases up to 18%** or **reductions up to 12%** (see image on right). In the remaining 30% of cases, the changes were more extreme (up to 32%)
- Experience from other LTNs introduced in London in 2020 has shown that after a few months of a ‘settling in’ period, the overall traffic levels reduced within the LTN boundaries and in most cases the impact on the surrounding main roads was not significant.



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## Impact of St Ann's LTN

- If implemented at the same time, the St Ann's LTN will have an impact on the numbers presented above, in particular:
  - Reducing the predicted additional demand on Belmont Road
  - Increasing the predicted additional demand on West Green Road and Westbury Avenue.



## Summary

- The last two years have shown that it is impossible to predict future trends in traffic flow.
- We have developed two scenarios to estimate the impact of the Bruce Grove West Green LTN on the boundary roads:
  - A worst-case scenario, based on the assumption that no one will change their travel behaviour following the trial implementation
  - A scenario based on the impact of similar schemes in London.
- Ultimately, each scheme is unique and the impact of the Bruce Grove West Green will depend on how people change their travel behaviour following the launch of the trial, and will be measured through the monitoring captured in the detailed monitoring strategy.