Public Document Pack

Local Plans Sub (Planning and Transportation) Committee

Date: **THURSDAY, 22 FEBRUARY 2018**

Time: **10.00 am**

Venue: **COMMITTEE ROOMS - 2ND FLOOR WEST WING, GUILDHALL**

Members:
Christopher Hayward (Chairman)
Deputy Alastair Moss (Deputy Chairman)
Randall Anderson
Marianne Fredericks
Paul Martinelli
Alderman Gregory Jones QC
Susan Pearson
Dhruv Patel

Enquiries: **Amanda Thompson**
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Lunch will be served in Guildhall Club at 12.30PM
NB: Part of this meeting could be the subject of audio or video recording

John Barradell
Town Clerk and Chief Executive

AGENDA

1. **APOLOGIES**

For Information

2. **MEMBERS DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**

For Information

3. **MINUTES**
To approve the minutes of the meeting held on 26 January 2018.

For Decision
(Pages 1 - 4)

4. **CITY OF LONDON LOCAL PLAN REVIEW: PROPOSED DRAFT POLICIES**
Report of the Director of the Built Environment

For Decision
(Pages 5 - 20)

5. **TRAFFIC IN THE CITY 2018**
Report of the Director of the Built Environment

For Decision
(Pages 21 - 46)

6. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUBCOMMITTEE**

For Information

7. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**

For Decision

LOCAL PLANS SUB (PLANNING AND TRANSPORTATION) COMMITTEE

Friday, 26 January 2018

Minutes of the meeting of the Local Plans Sub (Planning and Transportation) Committee held at the Guildhall EC2 at 2.00 pm

Present

Members:

Christopher Hayward (Chairman)	Paul Martinelli
Randall Anderson	Susan Pearson
Marianne Fredericks	Dhruv Patel

Officers:

Paul Beckett	-	Department of the Built Environment
Eddie Jackson	-	Department of the Built Environment
Bruce McVean	-	Department of the Built Environment
Adrian Roche	-	Department of the Built Environment
Peter Shadbolt	-	Department of the Built Environment
Amanda Thompson	-	Department of the Built Environment

1. **APOLOGIES**
   Apologies for absence were received from Paul Martinelli and Dhruv Patel.

2. **MEMBERS DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**
   There were no declarations of interest.

3. **MINUTES**
   RESOLVED **–** That the minutes of the meeting held on 8 December 2017 be agreed as a correct record subject to the following amendments:

   4. **City of London Local Plan Review**

   Circular Economy and Waste.

   - The transport of waste and freight should be by more sustainable transport incorporating use of the river.

   Smart Infrastructure and Utilities.

- Remove all old telephone boxes if appropriate and insist on wi-fi in all new buildings.

4. **CITY OF LONDON LOCAL PLAN REVIEW: PROPOSED DRAFT POLICIES**
Consideration was given to a report of the Director of the Built Environment which sought comments on the second tranche of draft policies for the new Local Plan.

Members made several comments and suggestions as follows:

Climate Resilience and Flood Risk

Specific reference be made to 'wind resilient' as well as climate resilient.

Development and refurbishment should include more 'green' roofing.

Strategic Flood Risk Assessments should identify hotspots and vulnerable areas on the Local Plan Policies Map.

Sustainable drainage must apply to all buildings

Conditions should not be over complicated.

Historic Environment

'Positively managing' instead of 'enhancing'

More positive language without changing the meaning

The best buildings should stand the test of time - 'valued' and continued' use as opposed to viable

Need to recognise the historical value and public interest as well as the beneficial use.

A number of comments were also submitted to officers in advance of the meeting from Mr Martinelli who was unable to be present as the meeting.

RESOLVED – To agree the proposed draft policies set out at Appendices 1 and 2 of this report.

5. **TRANSPORT STRATEGY - PROPOSED STRATEGY BOARD MEMBERSHIP AND TERMS OF REFERENCE**
The Sub-Committee received a report detailing the proposed Terms of Reference and membership for the Transport Strategy Board.

The Sub-Committee was advised that the Strategy Board would provide a forum for engaging key stakeholders in the development of the Transport Strategy, ensuring it reflected the needs of the City's business community.

Members commented that the membership of the Strategy Board should also include the Deputy Chairman of the Streets and Walkways Sub-Committee, and that consumers as well as providers should be included in the consultation.

RESOLVED – To

1) Approve the Terms of Reference for the Strategy Board; and

2) Approve the membership of the Strategy Board

6. **TRANSPORT STRATEGY - ONLINE SURVEY QUESTIONS**

Consideration was given to the draft survey that would be used to gather information on the public and other stakeholder's perceptions of transport and streets in the City. Members noted that the survey would be live from 5 February to 3 April 2018.

Members asked a number of questions including whether or not there would be an 'offline' version of the survey, whether there was an alternative to 'drag and drop' which might be off putting to participants, and whether or not there was scope to include details of the type of traffic people were using and what time of the day they were travelling.

RESOLVED -To approve the questions for the online survey

7. **TRANSPORT STRATEGY - CITY STREETS EXHIBITION**

The Sub-Committee considered a report which provided an update on the *City Streets: Transport for a changing Square Mile* exhibition that would be displayed at the City Centre between 5 February and 31 March 2018.

The report also detailed the stakeholder workshops that would be held at the City Centre while the exhibition was running which would provide an opportunity for stakeholders to highlight issues and concerns relating to transport and streets, consider how these might be addressed and discuss future priorities for transport.

It was agreed that at least one Member of the Sub-committee should aim to attend each session.

Workshop	**Stakeholder groups invited**	**Provisional Date**
1	Development/property sector	28 February (PM)
2	Transport user groups	6 March (PM)
3	Freight and logistics	13 March (PM)
4	Professional drivers	14 March (PM)

5	City businesses, culture, schools and hospital	15 March (AM & PM)
6	GLA, TfL, neighbouring boroughs	22 March (PM)

RESOLVED – That the report be noted.

8. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB-COMMITTEE**
There were no questions.

9. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**
None.

The meeting closed at 3.30pm

Chairman

Contact Officer: Amanda Thompson
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Committee(s)	Dated:
Local Plans Sub (Planning and Transportation) Committee	22/02/2018
Subject: City of London Local Plan Review: Proposed draft policies	**Public**
Report of: Carolyn Dwyer, Director of the Built Environment	**For Decision**
Report author: Adrian Roche, Department of the Built Environment	

Summary

At previous meetings of this Sub-Committee in December and January, Members considered emerging draft policies for the new Local Plan. Members made several comments and suggestions, which will inform the final version of the draft Plan that is presented to the Grand Committee. A further set of draft policies is attached to this report for discussion and agreement. Appendix 1 contains the proposed policy wording in relation to the section of the Plan entitled Healthy and Inclusive City.

Recommendations

Members are recommended to:

- Agree the proposed draft policies set out at Appendix 1 of this report.

Main Report

Background

1. At the meetings of this Sub-Committee on 22nd September 2017 and 6th October 2017, Members agreed the broad structure of the draft Local Plan and considered policy directions for key policy areas. Officers are currently preparing draft policies, informed by the steer from Members and a range of other factors such as national policy, the London Plan, the evidence base and the outcome of the Issues and Options consultation.

2. Five sets of policies have so far been considered at the previous meetings of this Sub-Committee in December and January, namely Culture, Visitors and the Night-Time Economy; Circular Economy and Waste; Smart Infrastructure and Utilities; Climate Resilience and Flood Risk; and Historic Environment. Members made various comments and suggestions, which will be reflected in the amended versions of those policies when the draft Local Plan is reported to the Grand Committee in May 2018.

Draft policies

3. Attached at Appendix 1 of this report is the Healthy and Inclusive City section of the draft Local Plan. The intention of this section is to bring together policies on a range of issues that may affect health and wellbeing, which are currently spread across four different sections of the adopted Local Plan.

4. Members should note that the Local Plan is not being drafted in the order that policies will appear in the final version, other than the City-wide policies which are being prepared ahead of the area-specific policies.

5. Members are asked to consider the proposed policy wording and to advise of any additions, deletions or other amendments that should be made before the relevant policies are presented to the Grand Committee.

6. The Sub-Committee previously indicated that it wished to consider the detailed wording of all the policies in the draft Local Plan but not the supporting text. Members are therefore asked to focus comments on the wording in the policy boxes. However, the supporting text is also presented to help explain the reasoning behind the proposed policies, and may assist with understanding the terminology used in some of the draft policies.

Next steps

7. Officers are in the process of drafting further sections of the draft Local Plan, which will be presented to the Sub-Committee at meetings in March and April. The current intention is to bring the full Plan back to the Sub-Committee for approval before it is reported to the Grand Committee in May so that it can be published for public consultation alongside the draft vision and objectives for the Transport Strategy in June 2018.

Corporate and Strategic Implications

8. The review of the Local Plan is being informed by the emerging draft Corporate Plan, and will provide an opportunity to complement key corporate objectives, such as developing Culture Mile and progressing the Future City agenda.

Appendices

- Appendix 1 – draft policies on Healthy and Inclusive City

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Healthy and Inclusive City

Context

The City of London is a very densely built up area with a large daytime population and limited open space. The City's economic success results in a high level of construction activity, while the density of development and employment, delivery and servicing requirements and the narrowness of many of the City's streets all contribute to periods of traffic congestion. This can result in poor air quality, noise and light pollution and a shortage of adequate open spaces, play and recreational spaces. The health of residents, workers and visitors to the City can be affected by adverse environmental conditions and lack of access to recreation and leisure opportunities.

The NPPF and the London Plan stress the importance of health and wellbeing and the role that the planning system can play in improving this. Planning policies can perform a social role, including supporting strategies to improve health and cultural wellbeing and promoting healthy communities. Planning decisions can have an influence on people's health, particularly through the design and management of new developments.

The City Corporation is committed to enabling an inclusive environment in which nobody is disadvantaged. Everyone should have equal opportunities to access buildings, spaces, job and training opportunities and health, leisure and educational services. An inclusive environment is one that recognises that everyone benefits from improved accessibility including disabled people, older people and families with children, carers, people with temporary medical conditions and people who do not consider themselves disabled.

An important element of this commitment is breaking down the unnecessary physical barriers and exclusions imposed on disabled people and others by poor design of buildings and spaces. The needs of disabled people should be considered at an early stage of the planning process and not considered separately from the needs of others.

A wide range of elements contribute to a healthy and inclusive environment. The transport and design sections of the Plan also address relevant issues such as: active travel and permeability, inclusive transport; and mitigating the impacts of pollution through the design of streets and public spaces, and providing adequate shade and shelter.

Core Strategic Policy CSXX: Healthy and Inclusive City

The City Corporation will work with a range of partners to create a healthy and inclusive environment in the City and enable all communities to access a wide range of health, education, recreation and leisure opportunities, by:

1. Implementing the principles of the City of London Corporation Joint Health and Wellbeing Strategy;

2. Ensuring that the use, design and management of buildings and the public realm helps to protect and improve the health of all the City's communities;

3. Requiring Health Impact Assessments to be carried out for major development proposals;

4. Requiring the design and management of buildings, streets and spaces to provide for the access needs of all the City's communities, including the particular needs of those with disabilities or mobility impairment;

5. Expecting development to:
   (i) promote healthy buildings and the Well Building Standard;
   (ii) improve local air quality, particularly nitrogen dioxide and particulates PM_{10} and $PM_{2.5}$;
   (iii) respect the City's quieter areas;
   (iv) limit the City's contribution to unnecessary light spillage and 'sky glow';
   (v) address land contamination, ensuring development does not result in contaminated land or pollution of the water environment.

6. Protecting and enhancing existing public health and educational facilities, including St Bartholomew's Hospital and existing City schools, working in partnership with neighbouring boroughs to deliver accessible additional educational and health facilities in appropriate locations;

7. Encouraging the further provision of private health facilities;

8. Promoting opportunities for training and skills development to improve access to employment, particularly for City residents and those in neighbouring boroughs;

9. Providing and improving social and educational services through the City's libraries;

10. Supporting nursery provision and additional childcare facilities where a need exists;

11. Protecting and enhancing existing community facilities and providing new facilities where required; and

12. Protecting and enhancing existing sport, play space and recreation facilities and encouraging the provision of further facilities within major developments.

Reason for the Policy

The City Corporation's Joint Health and Wellbeing Strategy considers three distinct populations with different needs and health issues: residents, workers and rough sleepers. Using data from the City and Hackney Joint Strategic Needs Assessment, it identifies five priorities for health and wellbeing in the City:

1. Good mental health for all;
2. A healthy urban environment;
3. Effective health and social care integration;
4. All children have the best start in life and

5. Promoting healthy behaviours.

The second of these priorities is the most relevant to land-use planning, as it includes issues such as poor air quality; relatively high levels of noise; a lack of green space, community space and space to exercise; some overcrowding of the housing stock; and road safety. The Joint Health and Wellbeing Strategy notes that there is strong evidence that the environment shapes health outcomes and it seeks to *"ensure health and wellbeing issues are embedded into the Local Plan and major planning applications".* This section of the Local Plan sets out policies that relate to many the issues identified in the Joint Health and Wellbeing Strategy.

The City's population differs from other areas in that the daytime population is dominated by workers, with residents forming a small but important fraction. The number of City employees and residents is forecast to increase during the Plan period, placing additional demands on the provision of health, education and social services to the working and resident populations.

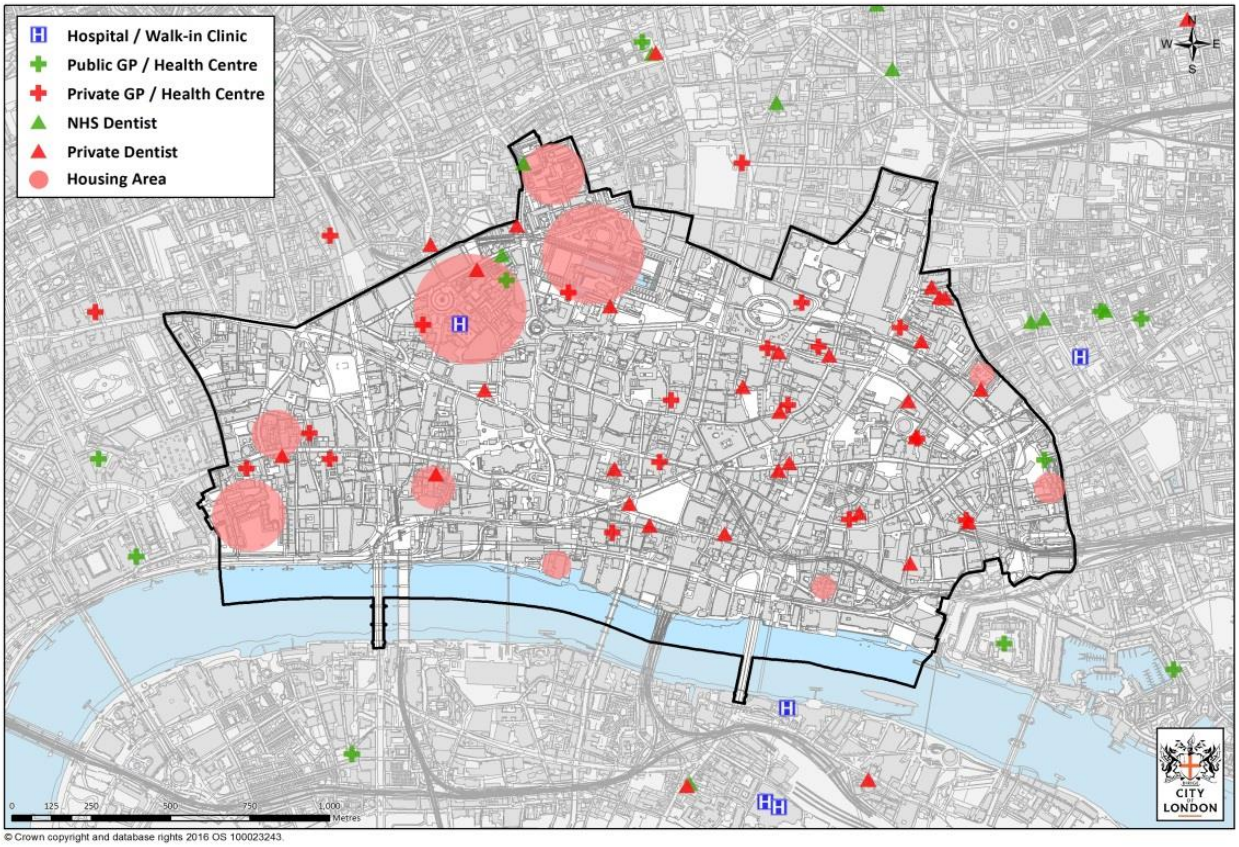

Figure XX: Distribution of health facilities in and adjoining the City

The small permanent residential population in the City means that it is often not economic to deliver effective services within the City. The City Corporation therefore works jointly with neighbouring boroughs and service providers to ensure that cost effective services can be provided. For example, the City Corporation is working jointly with Islington to deliver a new primary academy adjoining the City boundary.

The City is an intensively occupied location with large numbers of people working in office buildings in close proximity. Many City employees work long hours and may also access leisure, medical and entertainment opportunities within their place of employment. Research suggests that a poor working environment can have a

negative impact on the health of workers, and consequently their productivity. It is therefore important that buildings are designed to promote the health and wellbeing of everyone. The City Corporation established the Business Healthy programme in 2017 to support businesses to promote the health and wellbeing of their employees.

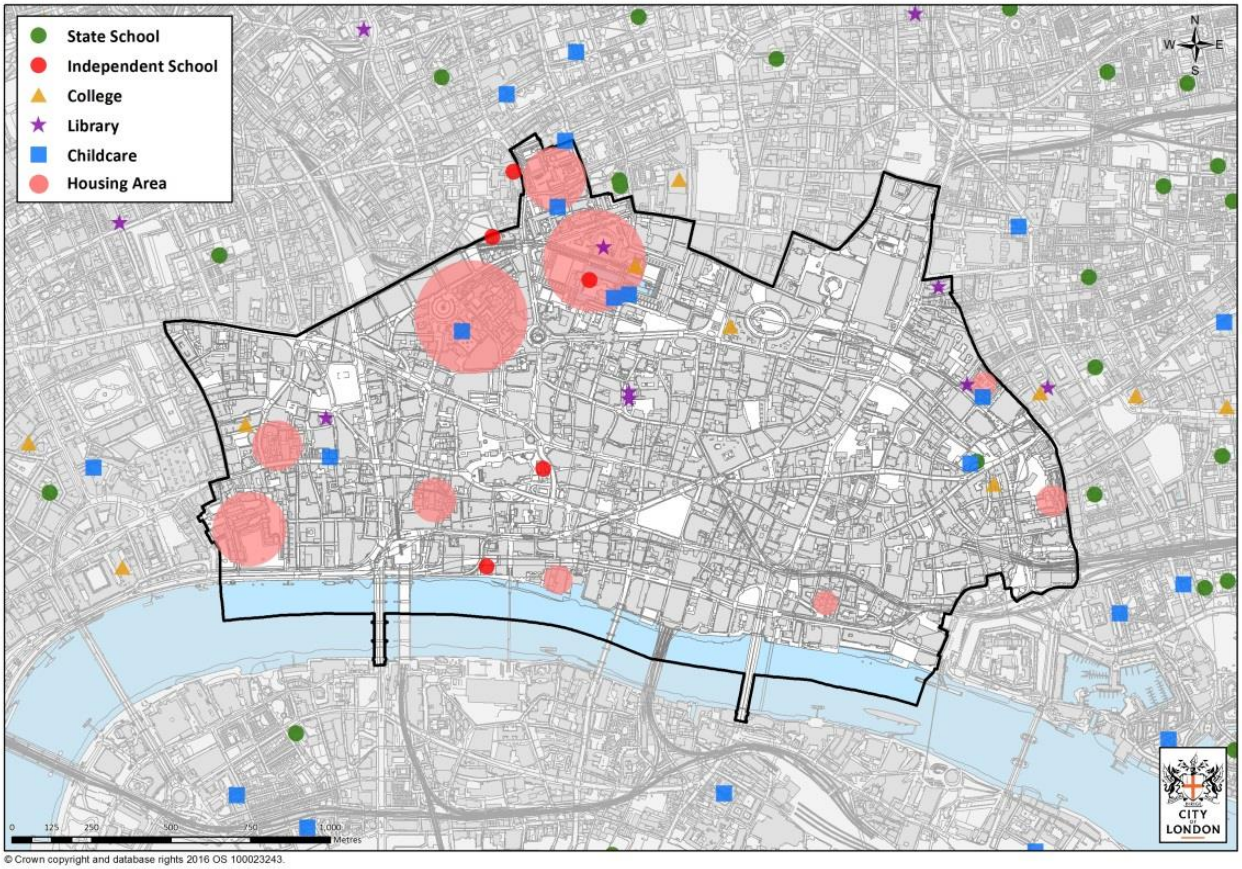

Figure XX: Distribution of skills and education facilities in and adjoining the City

Advances in technology and an awareness of how office environments can impact people's mental and physical health has highlighted the importance of striving to create a healthy City environment. A sense of community inclusion and belonging is important for both physical and mental health. People who live in cohesive communities with a wide range of employment opportunities, services, infrastructure and low crime are less likely to suffer poor health.

Outdoor spaces and the public realm are under increasing pressure to provide places for flexible working whilst also providing for relaxation and amenity. Protecting the relative tranquillity of at least some of the City's open spaces would confer benefits to health and wellbeing by providing places of respite from the City's generally high ambient noise levels. For instance, research on traffic noise has found that long-term exposure to noise above a certain level can have negative impacts on physical and mental health.

The location and nature of the City means that quieter areas, such as churchyards and open spaces, in the City cannot reasonably be expected to be as quiet as similar areas in suburban locations. Nonetheless, perceptions of tranquillity are often based on the relative noise levels of an area compared to its surroundings, rather than absolute noise levels.

The City is a relatively affluent area and is the third least deprived local authority area in London. However, disparities exist. While the Barbican is amongst the 20% least deprived residential areas in England, Mansell Street and Petticoat Lane areas are amongst the 40% most deprived. The planning system can play a part in tackling such disparities, for instance by securing training and skills programmes through planning obligations associated with major development schemes.

How the policy works

To protect and enhance people's physical and mental health, new development should be designed to promote physical activity and well-being, through appropriate arrangements of buildings and uses, access, open space and landscaping, and the provision of facilities to support walking and cycling.

To facilitate the delivery of a healthy city, developers are encouraged to use established methodologies, such as Well Certification under the Well Building standard. The Well Building standard is an accreditation system that attempts to measure how building features impact on health and wellbeing. Compliance requirements for the standard fit into seven key areas; air, water, nourishment, light, fitness, comfort and mind. Each category is scored out of 10 and, depending on the total achieved, silver, gold or platinum certification is achieved.

Full Health Impact Assessments (HIA) should be submitted to support planning applications for over 10,000 sqm GIA for commercial developments or 100 or more residential units. Such assessments consider the impact on people's health of the development. For schemes of between 10 and 99 dwellings or between 1,000 - 9,999 m^2 of commercial floorspace, developers should use the NHS London Healthy Urban Development Unit's Rapid Health Impact Assessment Tool for preparing their HIA. This allows for a focused investigation of health impacts and should address the most significant impacts and/or those most likely to occur.

Larger commercial developments should seek to reach outwards into the community by providing relevant services with health impacts such as publicly available drinking water, defibrillators and toilets. Signage at the front of buildings should be displayed to make the public aware of the availability of these facilities.

Policy DM XX: Inclusive buildings and spaces

1. To achieve an environment that meets the highest standards of accessibility and inclusive design in all developments, open spaces and streets, ensuring that the City of London is:

- inclusive and safe for all who wish to use it, regardless of disability, age, gender, ethnicity, faith or economic circumstance;
- convenient and welcoming with no disabling barriers, ensuring that everyone can experience independence without undue effort, separation or special treatment;
- responsive to the needs of all users who visit, work or live in the City, whilst recognising that one solution might not work for all.

Reason for the policy

The built environment needs to be safe, accessible and convenient to improve the quality of life for all City users and particularly for disabled and elderly people and those with other mobility difficulties. Despite progress in building a more accessible City, some people still experience considerable barriers to living independent and dignified lives as a result of the way the built environment is designed, built and managed. The outcome of embracing inclusive design should be a City where people want to live, work and visit.

How the policy works

Developers will be required to submit Design and Access Statements which demonstrate a commitment to inclusive design and engagement with relevant user groups. Design and Access Statements should include details both on how best practice standards have been complied with and how inclusion will be maintained and managed throughout the lifetime of the building.

Policy DM XX: Air quality

1. Developers will be required to consider the impact of their proposals on air quality and, developments which are likely to have a significant impact on air quality must provide an Air Quality Impact Assessment;

2. Development that would result in deterioration of the City's nitrogen dioxide or PM_{10} and $PM_{2.5}$ pollution levels will be resisted;

3. All developments should be at least Air Quality Neutral. Within the City's Low Emission Neighbourhood development should make a positive contribution to the improvement of air quality. Major developments will be required to maximise credits for the pollution section of the BREEAM assessment relating to on-site emissions of oxides of nitrogen (NOx);

4. Developers will be encouraged to install non-combustion low and zero carbon energy technology. A detailed Air Quality Impact Assessment will be required for combustion based low and zero carbon technologies, such as CHP plant and biomass or biofuel boilers, and necessary mitigation must be approved by the City Corporation;

5. Developments that include uses that are more vulnerable to air pollution, such as schools, nurseries, medical facilities and residential development, should minimise the impact of poor air quality on occupants through appropriate design, layout, landscaping and technological solutions;

6. Construction and deconstruction and the transport of construction materials and waste must be carried out in such a way as to minimise air quality impacts. Impacts from these activities must be addressed within submitted Air Quality Impact Assessments;

7. Air intake points should be located away from existing and potential pollution sources (e.g. busy roads and combustion flues). All combustion flues should

terminate above the roof height of the tallest building in the development to ensure maximum dispersion of pollutants.

Reason for the policy

Due to its location at the heart of London and the density of development, the City of London has high levels of air pollution. Poor air quality can harm human health, particularly for young people while their lungs are developing, and increase the incidence of cardiovascular and lung disease. National health based objectives for the pollutants nitrogen dioxide (NO_2) and small particles (PM_{10}) are not being met in the City, in common with all central London, so the whole of the Square Mile has been declared an Air Quality Management Area. The City Corporation has also designated a Low Emission Neighbourhood in the Barbican, Guildhall and Bart's Hospital area of the City with the aim of improving local air quality by reducing the amount of traffic and encouraging and supporting low and zero emission vehicles in the locality.

Tackling poor air quality requires a range of actions, including reducing traffic congestion and supporting low emissions vehicles, reducing emissions associated with combustion based heating and cooling systems, and limiting emissions linked with demolition and construction. The addition of green space and planting within the public realm can help to trap particulate pollution. The main source of pollutants in the City is currently road transport, but following implementation of the Mayor's Ultra Low Emission Zone in 2019 it is forecast that a greater share of air pollutants will be generated by buildings. It is predicted that by 2020 buildings will account for almost half of NO_2 emissions arising in the City.

How the policy works

The City Corporation's Air Quality Strategy provides detailed information on the air quality issues facing the City and the various actions being pursued to improve air quality. The Air Quality SPD sets out specific guidance for developers on the City Corporation's requirements for reducing air pollution from developments within the Square Mile. The City's Code of Practice for Deconstruction and Construction Sites and the Mayor's Control of Dust and Emissions during Construction and Demolition SPG provide guidance on procedures to be adopted to minimise the impacts of demolition and construction activities on air quality.

The Air Quality SPD sets out the circumstances in which an Air Quality Impact Assessment is required and provides guidance on the information required. Such an assessment must be submitted for all major development.

Policy DM XX: Noise and light pollution

1. Developers will be required to consider the noise impact of their developments and, where there may be an impact on noise-sensitive uses, to provide a noise assessment. The layout, orientation, design and use of buildings should ensure that operational noise does not adversely affect neighbours, particularly noise-sensitive land uses such as housing, hospitals, schools, nurseries and quiet open spaces.

2. Any potential noise conflict between existing activities and new development should be minimised. Where the avoidance of noise conflicts is impractical, the new development must include suitable mitigation measures such as noise attenuation or restrictions on operating hours.

3. Noise and vibration from deconstruction and construction activities must be minimised and mitigation measures put in place to limit noise disturbance near the development.

4. Developers will be required to demonstrate that there will be no increase in background noise levels associated with new plant and equipment.

5. Opportunities will be sought to incorporate improvements to the acoustic environment within major development.

6. Internal and external lighting should be designed to reduce energy consumption, avoid spillage of light beyond where it is needed and protect the amenity of light-sensitive uses such as housing, hospitals and areas of importance for nature conservation.

Reason for the policy

The City has a complex, densely developed and intensively used built environment in which space is at a premium and where multiple activities occur in very close proximity. Therefore, the effective management of noise and light pollution impacts applies to both development that introduces new sources of noise and light pollution or development that is sensitive to noise and light pollution.

The main noise sources related to new developments in the City are:

- Construction and demolition work and associated activities, such as piling, heavy goods vehicle movements and street works;
- Building services plant and equipment, such as ventilation fans, air-conditioning and emergency generators;
- Leisure facilities and licensed premises, involving noise from people and amplified music; and
- Servicing activities such as deliveries, window cleaning and building maintenance.

Noise sensitive developments in the City include residential developments (including hotels and serviced apartments), health facilities, schools and childcare provision and certain open spaces. For noise sensitive developments, confirmation will be sought of appropriate acoustic standards at the design stage. The City Corporation will apply the ‘agent of change’ principle, meaning that the responsibility for mitigating the impact of noise will fall on the new development.

Developments, including changes of use, may require permission under both the planning and licensing regimes, which operate under different legislation. In implementing planning policy, liaison will take place with licensing to enable consistency of advice and decision making as far as possible.

How the policy works

The City of London Noise Strategy 2016-2026 identifies the strategic approach to noise in the City and the City's Code of Practice for Deconstruction and Construction Sites provides guidance on procedures to be adopted to minimise the noise impacts of development. The use of planning conditions or obligations will be considered where this could successfully moderate adverse effects, for example, by limiting hours of operation.

When bringing forward major development proposals, developers are encouraged to consider whether there may be opportunities to enhance the existing acoustic environment, for instance by incorporating water features that can aid relaxation and help to mask traffic noise. More information about this can be found in the City's Noise Strategy.

The City Corporation is preparing a Lighting Strategy, which includes a range of proposals to improve the quality of lighting across the City with specific recommendations for different character areas. The Lighting Strategy includes guidelines to help reduce light spillage and glare from retail and office premises, and from signage.

Policy DM XX: Contaminated land and water quality

Where development involves ground works or the creation of open spaces, developers will be expected to carry out a detailed site investigation to establish whether the site is contaminated and to determine the potential for pollution of the water environment or harm to human health and non-human receptors. Suitable mitigation must be identified to remediate any contaminated land and prevent potential adverse impacts of the development on human and non-human receptors, land or water quality.

Reason for the policy

When a site is developed and ground conditions change there is potential for contaminants to be mobilised, increasing the risk of harm. Site investigation should establish whether the proposed use is compatible with the land condition. The phrase non-human receptors encompasses buildings and other property, or ecological systems and habitats, which may be harmed as a result of contaminated land or water.

How the policy works

Pre-application discussions should be used to identify the particular issues related to environmental protection that are relevant to each development site. The City Corporation has published a Contaminated Land Strategy and a Contaminated Land Inspection Strategy, which provide details of the issues likely to be encountered in different parts of the City and should be used for reference by developers.

Policy DM XX: Location and protection of social and community facilities

1. Existing and permitted social and community facilities will be protected unless:

- replacement facilities are provided on-site or within the vicinity which meet the needs of the users of the existing facility; or
- necessary services can be delivered from other facilities without leading to, or increasing, any shortfall in provision; or
- it has been demonstrated through active marketing, at reasonable terms for public, social and community floorspace, that there is no demand for another similar use on the site.

2. The development of new social and community facilities should provide flexible, multi-use space suitable for a range of different uses and will be permitted:

- where they would not be prejudicial to the business City and where there is no strong economic reason for retaining office use;
- in locations which are convenient to the communities they serve;
- in or near identified residential areas, providing their amenity is safeguarded;
- as part of major mixed-use developments, subject to an assessment of the scale, character, location and impact of the proposal on existing facilities and neighbouring uses.

3. Developments that result in additional need for social and community facilities will be required to provide the necessary facilities or contribute towards enhancing existing facilities to enable them to meet identified need.

Reason for the policy

Social and community facilities contribute to successful communities by providing venues for a wide range of activities and services. As such they make a significant contribution to people's mental and physical well-being, sense of community, learning and education. Library and educational facilities for children and those that support the City's business and cultural roles are particularly important and will be protected where there is a demand for these facilities.

Existing social and community facilities will be protected, unless it can be demonstrated to the City Corporation's satisfaction that there is no demand from social and community users for the facilities or that their loss is part of a published asset management plan, in the case of non-commercial enterprises. Proposals for the redevelopment or change of use of social and community facilities must be accompanied by evidence of the lack of need for those facilities.

Where existing social and community facilities are to be relocated, the replacement facilities should be within the City. However, for services that serve a wider catchment area, relocation outside the City, but within a reasonable distance, might be acceptable. There may be advantages in locating organisations together within multi-functional community buildings to maximise the efficient use of resources.

Where rationalisation of services would result in either the reduction or relocation of social and community floorspace, the replacement floorspace must be of a comparable or better standard.

Policy DM XX: Public conveniences

A widespread distribution of public toilets which meet public demand will be provided by:

- requiring the provision of a range of public toilet facilities in major retail and leisure developments, particularly near visitor attractions, public open spaces and major transport interchanges. Larger developments should include provision for disabled people and their carers (changing places toilets). Public toilets should be available during normal opening hours, or 24 hours a day in suitable areas with concentrations of night-time activity;
- supporting an increase in the membership of the Community Toilet Scheme;
- resisting the loss of existing public toilets, unless adequate provision is available nearby, and requiring the provision of replacement facilities;
- taking the opportunity to renew existing toilets which are within areas subject to major redevelopment schemes and seeking the incorporation of additional toilets in proposed developments where they are needed to meet increased demand.

Reason for the policy

Inclusive and accessible toilet provision is essential to meet the needs of all communities. Public conveniences are a particularly important facility for a number of groups, such as the elderly, disabled and parents with young children and are a necessity in areas where people spend considerable time such as tourist areas. Areas of the City with concentrations of night-time entertainment require adequate toilet provision to prevent fouling of the streets.

The City Corporation provides public toilets and aims to provide a distribution which effectively meets public demand, but this needs to be supplemented by provision in major retail and leisure development through membership of the Community Toilet Scheme. The City Corporation provides attended toilets equipped with baby changing units and facilities for disabled people, while automatic toilets provide a 24-hour service. The Community Toilet Scheme allows the public to use toilet facilities in participating businesses.

Public toilets should be clearly signposted to ensure they are easily found. The City Corporation has produced a free toilet finder app suitable for use on mobile phones. Facilities should be maintained by the owner as part of the overall maintenance of any development.

‘Changing places’ toilets are not designed for independent use and should be provided in addition to standard unisex disabled persons’ toilets, baby change and family facilities, rather than as a replacement.

Policy DM XX: Sport and recreation

1. Existing and permitted public sport and recreational facilities will be protected, unless:

- replacement facilities are provided on-site or within the vicinity that meets the needs of the users of that facility; or
- necessary services can be delivered from other facilities without leading to, or increasing, any shortfall in provision; or
- it has been demonstrated through active marketing, at reasonable terms for sport and recreational use, that there is no demand for sport and recreation facilities which could be met on the site.

2. The provision of new sport and recreation facilities will be encouraged:

- where they provide flexible space to accommodate a range of different uses/users and are accessible to all;
- in locations which are convenient to the communities they serve, including open spaces;
- near existing residential areas;
- as part of major developments subject to an assessment of the scale, character, location and impact of the proposal on existing facilities and neighbouring uses;
- where they will not cause undue disturbance to neighbouring occupiers.

3. The use of vacant development sites for a temporary sport or recreational use will be encouraged where appropriate and where this does not preclude return to the original use or other suitable use on redevelopment.

Reason for the policy

There has been an increase in sport and recreational facilities in the City in recent years, with much of the increase resulting from additional private gym facilities within office developments and some hotels. The rapid growth in the working population, as well as the increasing recognition of the importance of healthy lifestyles, means there is a continued demand for these facilities.

While such facilities are important in meeting sport and recreational needs, it will not always be necessary to prevent their change of use, due to the fluid nature of the private market. However, any proposals involving the loss of sport and recreational facilities must be accompanied by evidence of a lack of need for those facilities.

Open spaces and publicly accessible rooftops can provide valuable sports and recreational facilities in the densely built City environment.

Policy DM XX: Play areas and facilities

1. The City Corporation will protect existing play provision and seek additional or enhanced play facilities or space, particularly in areas where a need has been identified, by:

- protecting existing play areas and facilities and, on redevelopment, requiring the replacement of facilities either on-site or nearby to an equivalent or better standard;
- requiring external play space and facilities as part of new residential developments which include 20 or more family units (those with 3 or more bedrooms) or 10 or more affordable units of 2 or more bedrooms;
- where the creation of new play facilities is not feasible, requiring developers to work with the City Corporation to deliver enhanced provision nearby;
- promoting opportunities for informal play and play within open spaces where it is not possible to secure formal play areas.

2. Play areas and facilities should not be located where they would cause undue disturbance to neighbouring occupiers or in areas of poor air quality due to the negative health impacts on young children.

Reason for the policy

Play is essential for the healthy development of children and takes place in both formal and informal spaces. Formal play spaces include areas specifically designed and designated for play. Due to the City's large working population there are also opportunities to create informal play spaces in the City, which are not designated solely for that purpose but contain features that can be used for imaginative play. These spaces would also benefit the increasing numbers of children who visit the City.

Public realm spaces should be designed imaginatively to serve the needs of workers but also offer informal play opportunities. The City Corporation plans to provide appropriate sensory play areas in the City for children and young people with special educational needs.

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Committee:	Date:
Local Plans Sub (Planning and Transportation) Committee	22/02/18
Subject: Traffic in the City 2018	**Public**
Report of: Carolyn Dwyer, Director of the Built Environment	**For Information**

Summary

This report considers the traffic data gathered in 2017 and examines longer term trends in the Traffic Composition Survey (TCS) dataset.

The City of London TCS has been conducted on average every two years since 1999. They provide an overview of traffic volumes and composition across the City and are used to identify historical trends in the number and types of vehicles using streets in the Square Mile.

In 2017 an additional TCS was undertaken to provide more data to support the development of the City of London Transport Strategy. The new 2017 TCS found that traffic volumes, after dropping significantly from 2014 to 2016, have remained relatively unchanged since.

This year was the first year that pedestrian counts were also conducted at all sites. Over 413,000 pedestrian movements were counted, representing almost two-thirds of all counted movements. Thirteen of the fifteen sites surveyed saw more pedestrian traffic than all other traffic modes combined. Over 59,000 pedestrian movements were recorded 'at night' (between 19:00 and 07:00).

Recommendations

Members are asked to note the report.

Main Report

Background

1. This report provides an overview of the findings from the City of London Traffic Composition Surveys (TCS). These surveys – conducted every two years since 1999 – provide details of the number and types of vehicles using the City's streets.

2. In 2017 an additional TCS was undertaken. For the first time this included pedestrian counts, further enhancing the dataset ahead of the development of the City of London Transport Strategy.

3. Vehicular and pedestrian traffic flows were recorded for a 24-hour period on November 16th, 2017 at the following sites:

Site ID	Approximate Site Location
CC1	New Bridge Street at Tudor Street
CC2	New Change at Festival Gardens
CC3	Queen Street south of Cheapside
CC4	Queen Victoria Street west of Bucklersbury
CC5	King William Street at Abchurch Lane
CC6	Gracechurch Street north of Lombard Street
CC7	Beech Street at Whitecross Street
CC8	London Wall at Bassishaw Highwalk
CC9	Gresham Street east of Basinghall Street
CC10	Poultry west of Grocers' Hall Court
CC11	Cannon Street/Wallbrook at Dowgate Hill
CC12	Upper Thames east of Queen Street Place
CC13	Mark Lane south of Hart Street
CC14	Old Broad Street at Great Winchester Street
CC15	Long Lane east of Lindsey Street

4. This report considers the data gathered in the 2017 survey and examines longer term trends in the TCS dataset. More detailed analysis is provided in Appendix 1.

Key Findings

5. Traffic volumes have continued to trend downwards since the TCS counts began in 1999. However, the 2017 counts did not record a significant change in vehicle volumes when compared to the recently-undertaken 2016 counts.

6. More pedestrians were counted in 2017 than all vehicles combined, representing almost two-thirds of all traffic on City streets. Over 59,000 pedestrian movements were recorded 'at night' (between 19:00 and 07:00), making walking the most common mode of travel during this period.

7. Cycling volumes in the City are the only counted mode to have seen growth since 1999, increasing by nearly 300%. However, recent cycling counts suggest that cycling growth has stagnated.

8. Despite peak hour traffic volumes decreasing since at least 2007, the peak periods are getting 'peakier', likely due to an increase in cycling.

9. Morning and evening peak hour traffic composition is considerably different, with more goods and services vehicles on City streets in the morning and more cars, private hire vehicles and taxis in the evening.

10. Cycle, motorcycle, and pedestrian 24-hour time profiles indicated that these modes are predominantly driven by commuting traffic. All other modes did not show peak-time variation, suggesting their role in facilitating commuting trips was not as significant.

11. Cars and private hire vehicles use the most space on City streets while potentially moving fewer people than buses. Pedestrian traffic constitutes the majority of people movement on City streets as more people were estimated to have moved through the City on foot than by all other modes combined.

Conclusions

12. City of London Traffic Composition Survey (TCS) data indicates that street traffic volumes have been declining since 1999, albeit at a slower rate in recent years. The 2017 TCS was the first year that pedestrian data was also collected, improving our understanding of pedestrian travel across the City. Overall, the TCS data will support the evidence-led development of the upcoming City of London Transport Strategy.

Appendices

Appendix 1 – Traffic in the City 2018 (please see digital copy or pdf).

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TRAFFIC IN THE CITY 2018

Strategic Transportation

Department of the Built Environment

February 2018

Contents

1

Introduction

1 Introduction

Overview

This report provides an overview of the findings from the City of London Traffic Composition Surveys (TCS). These surveys – conducted every two years since 1999 – provide details of the number and types of vehicles using the City's streets.

In 2017 an additional TCS was undertaken. For the first time this included pedestrian counts, further enhancing the dataset ahead of the development of the City of London Transport Strategy.

This report considers the data gathered in the 2017 survey and examines longer term trends in the TCS dataset.

Uses and Limitation

While the TCS provides a comprehensive estimate of City-wide traffic composition, the surveys do not represent a 'cordon count' and should not be considered a comprehensive count of all City traffic. Instead, the data is used to identify trends across sample years and to compare proportions of different types of traffic between sites and between counts from different years.

Structure

This report is structured as follows;

- Chapter 2 visualises historical data gathered through the TCS from 1999 onwards alongside identifying significant trends in the dataset;
- Chapter 3 provides an in-depth analysis of 2017 TCS count data.

TCS Count Locations

- The Traffic Composition Survey began in 1999 and recorded vehicular traffic flows at the following fifteen sites:

- CC1 – New Bridge Street at Tudor Street
- CC2 – New Change at Festival Gardens
- CC3 – Queen Street south of Cheapside
- CC4 – Queen Victoria Street west of Bucklersbury
- CC5 – King William Street at Abchurch Lane
- CC6 – Gracechurch Street north of Lombard Street
- CC7 - Beech Street at Whitecross Street
- CC8 – London Wall at Bassishaw Highwalk
- CC9 – Gresham Street east of Basinghall Street
- CC10 – Poultry west of Grocers' Hall Court
- CC11 – Wallbrook at Dowgate Hill
- CC12 – Upper Thames east of Queen Street Place
- CC13 – Mark Lane south of Hart Street
- CC14 – Old Broad Street at Great Winchester Street
- CC15 – Long Lane east of Lindsey Street

These sites cover the four different classifications that make up the City street network (Transport for London Road network – TLRN Borough Road Network – BRN; Local Road Network – LRN; and Local Access Rod – LAR).

Historically, counts were conducted over a 12 hour period (07:00 to 18:59) in both directions at all sites. In 2016, the count period was extended to cover a full 24 hour period.

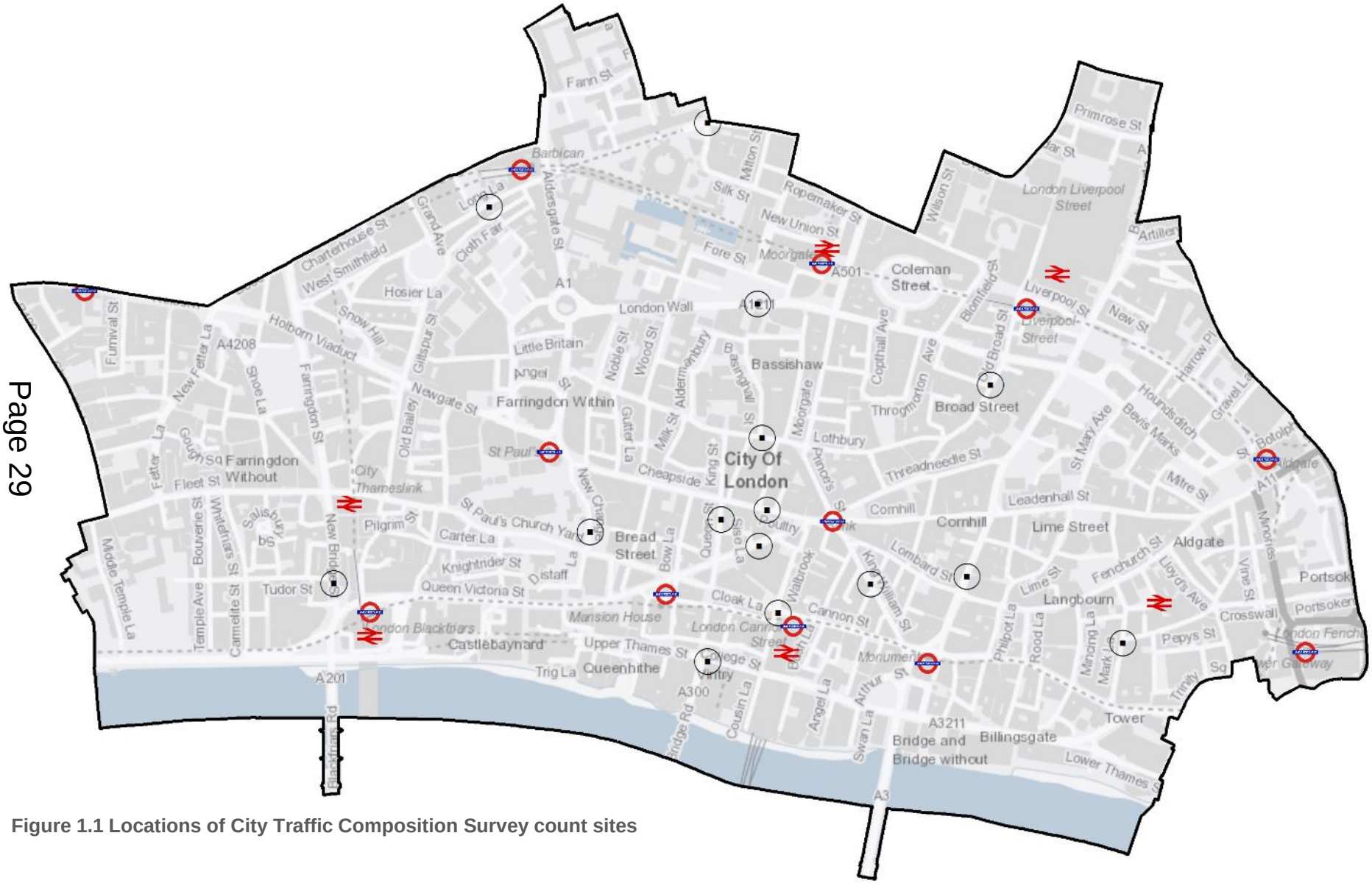


Figure 1.1 Locations of City Traffic Composition Survey count sites

1 Introduction

TCS Count Modes

Vehicular traffic was counted at all sites and recorded in a standard count database. Count data was recorded in 15 minute intervals by mode and direction. The modes counted are.

Private Car – includes both private hire/minicab vehicles (e.g. Uber and Addison Lee).

Taxi – 'Black Taxicabs'.

Motorcycle (MC) – includes motorcycles and mopeds. Does not include electric cycles.

Light Goods Vehicle (LGV) – includes all goods vehicles up to 3.5 tonnes gross vehicle weight, and all car delivery vans.

Heavy Goods Vehicle (OGV1 & OGV2) – Includes all rigid vehicles over 3.5 tonnes gross vehicle weight with two or more axels. OGV1 specifically refers to all rigid vehicles over 3.5 tonnes gross vehicle weight with two or three axles, and OGV2 specifically refers to rigid vehicles with four or more axles and all articulated vehicles.

Public Service Vehicle (PSV) – includes TfL buses, coaches, and tourist buses/open-top buses.

Cycle – includes all personal, dockless cycle hire (i.e. Ofo, Mobike), and TfL Cycle Hire (Santander) cycles.

Pedestrian counts were also undertaken in 2017 and distinguish between direction of travel and side of road used.

2

TCS Trend Data

2 Traffic Composition Survey Trend Data

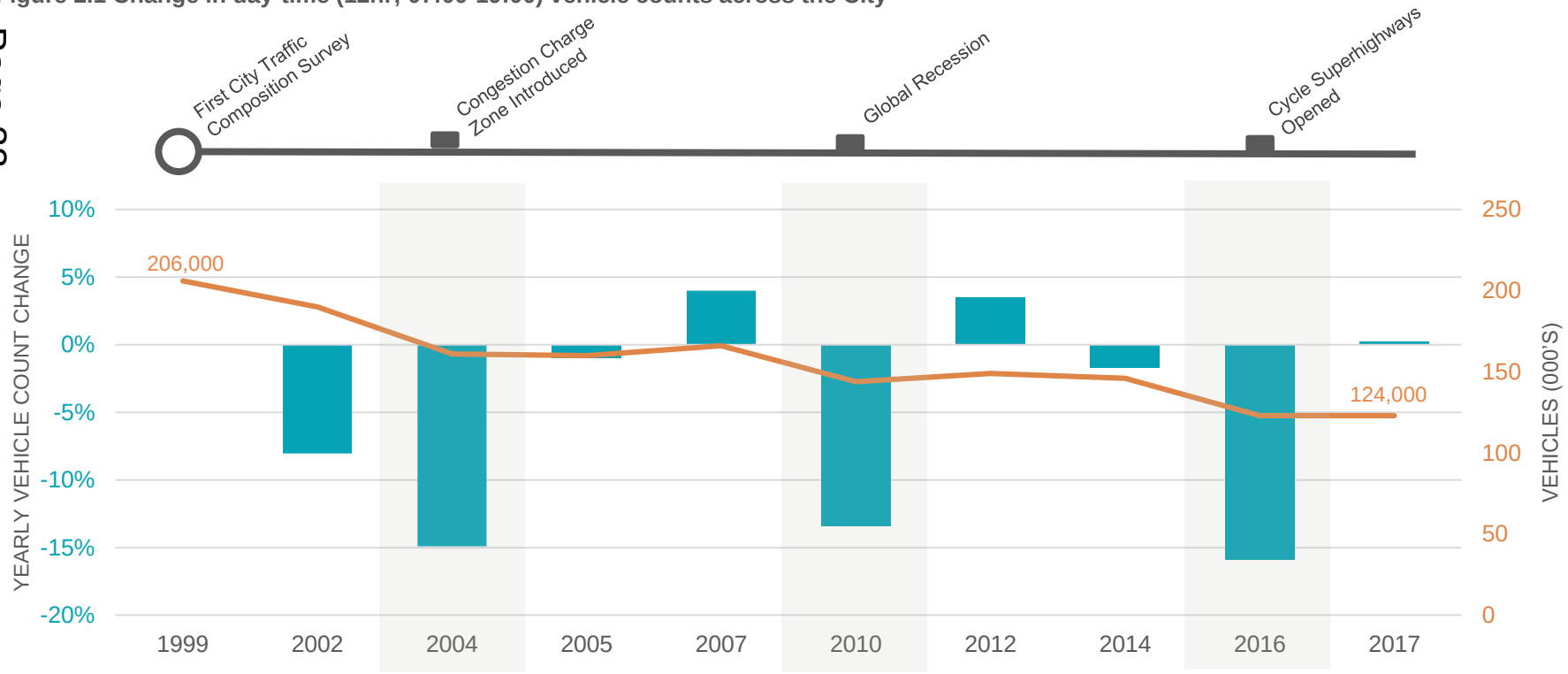
Historical Trends in Traffic Volumes

City traffic composition has changed significantly over the last two decades, both in terms of the total volume of traffic and the proportions of different vehicle types that make up that traffic. Figure 2.1 highlights the percentage change in total vehicle count (blue bars) and the absolute number of vehicles counted each year (orange line).

The total number of vehicles counted on the City's streets has declined overall since counting began in 1999* from a high of over 200,000 vehicles to just under 124,000 in 2017. This represents a 40 percent decrease in counted vehicle moments overall or approximately -2 percent a year. However, this decrease has occurred in bursts rather than gradually with greater drops in 2004, 2010, and 2016. These count years correspond with the introduction of the Congestion Charge Zone (2003), the Global Recession (2008), and the introduction of Cycle Superhighways (2016), alongside other ongoing factors such as national increases in rail travel and traffic space reallocations on City streets. Traffic volumes also climbed marginally in three count years (2007, 2012, and 2017).

*Historical trend data is representative of the twelve screenline count sites (CC1-12).

Figure 2.1 Change in day-time (12hr; 07:00-19:00) vehicle counts across the City



2 Traffic Composition Survey Trend Data

Historical Trends in Modal Volumes

Traffic volumes of all vehicular modes (except cycling) have decreased over the last two decades by at least one-third, with day-time car/taxi and motorcycle (MC) traffic declining 59 and 49 percent respectively since 1999 (Figure 2.2, right). Heavy goods vehicle (OGV) volumes have declined by similar amounts while light goods vehicle (LGV) volumes have seen their numbers remain relatively consistent since 2004 after dipping roughly a third from 1999 levels (Figure 2.3, below).

Some of the street capacity unlocked by these decreases in motorised vehicle traffic, alongside cycling infrastructure installations across the City, have facilitated a 292 percent increase in cycling volumes since 1999, with an additional 24,000 cycling journeys recorded on count day in 2017. These counts - taken in October and November – are representative of winter cycling rates. It is likely that cycling would make up an even greater share of vehicle movements during the spring and summer months.

Not shown here are counted bus and other public service vehicle (PSV) volumes. Count data from PSVs are included in upcoming sections.

Figure 2.2 Percentage change 1999-2017 in day-time time vehicle counts across the City (12hr)

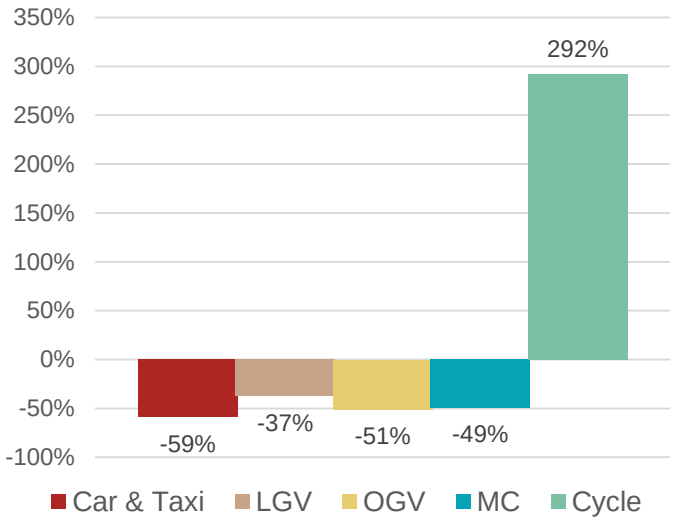
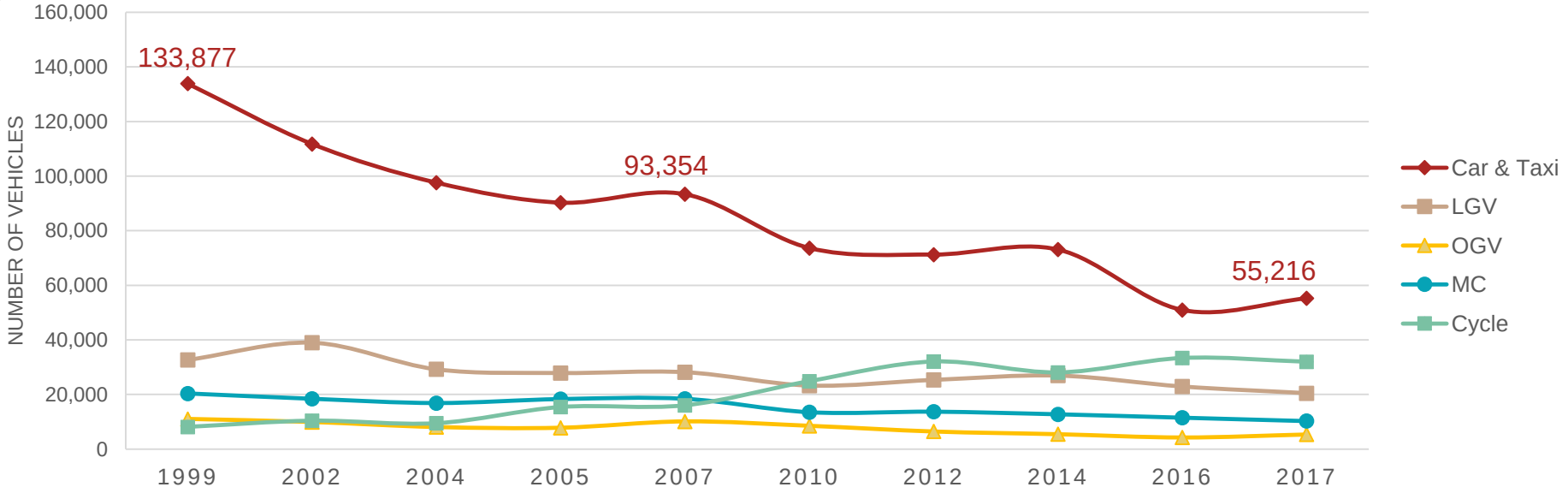


Figure 2.3 Absolute change in day-time vehicle counts across the City by year (12hr)



2 Traffic Composition Survey Trend Data

Historical Trends in Hourly Volumes and Peak Modal Split

Figure 2.4 (right) shows the percentage of total day-time traffic observed in each hour plotted as a line. The hashed orange line represents 2007 percentages and the hashed blue line represents 2017 percentages. Despite all vehicular traffic decreasing during the morning peak period (as seen in Figure 2.5), peak hour traffic volumes as a proportion of all-day traffic volumes has increased since 2007, indicated by the higher peaks on the blue line. This is likely due to the combination of all-day motor vehicular traffic reductions and an increase in peak-time cycle commuting. This will be explored further in Chapter 3.

Figure 2.5 (below) compares changes in morning peak hour traffic volumes by mode. Traffic volumes during this period have declined since at least 2007* (albeit with a small increase observed in 2012).The number of cyclists counted during the morning peak hour has more than doubled since 2007, making it the single largest mode of transport counted on City streets from 08:00 to 09:00. Cars and taxi volumes counted during the morning peak hour have decreased since 2007 while goods and services vehicle volumes have remained relatively unchanged over the same period.

*Raw data from prior to 2007 is unavailable at this time.

Figure 2.4 Proportion of all day-time traffic by hour of day (measure of 'peakiness')

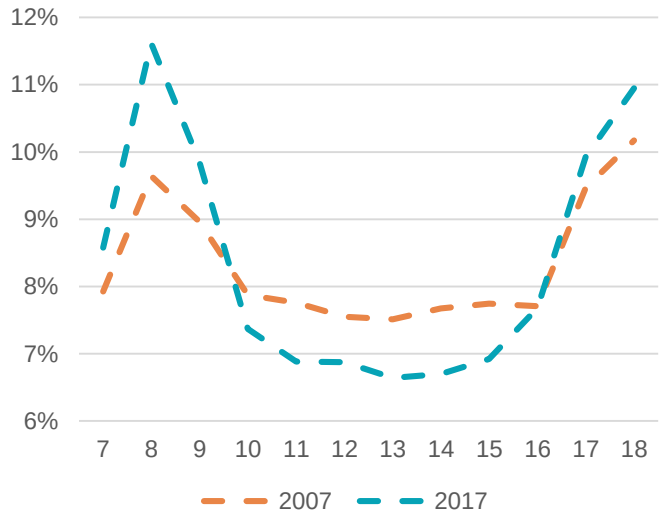
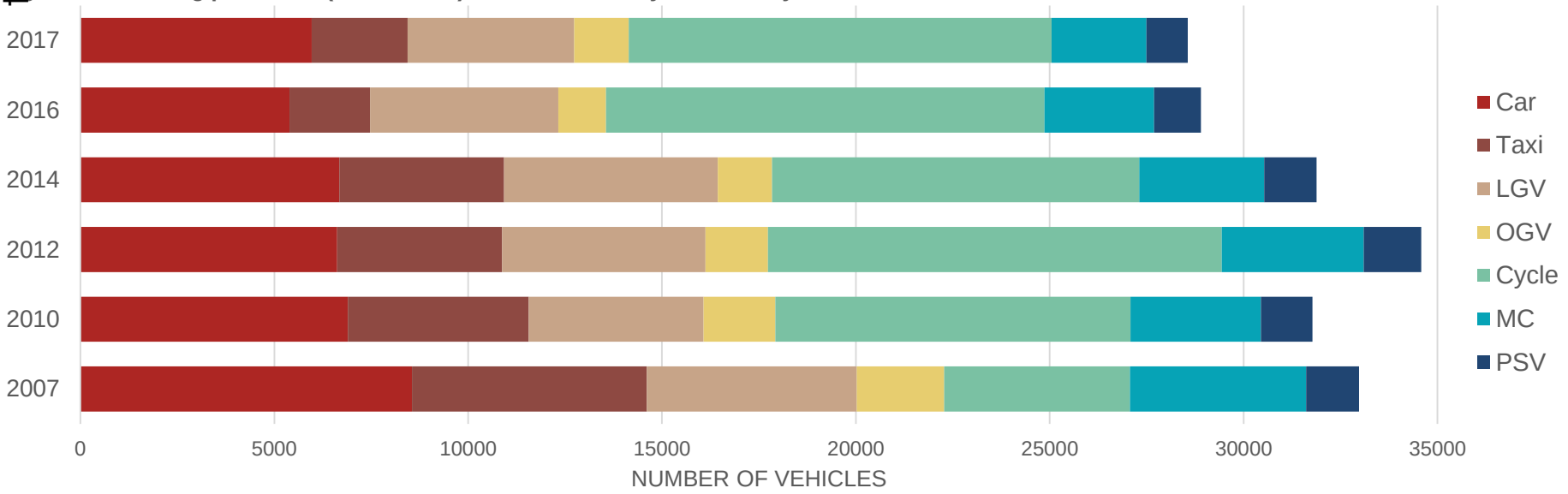


Figure 2.5 Morning peak hour (08:00-09:00) vehicle counts by mode and year



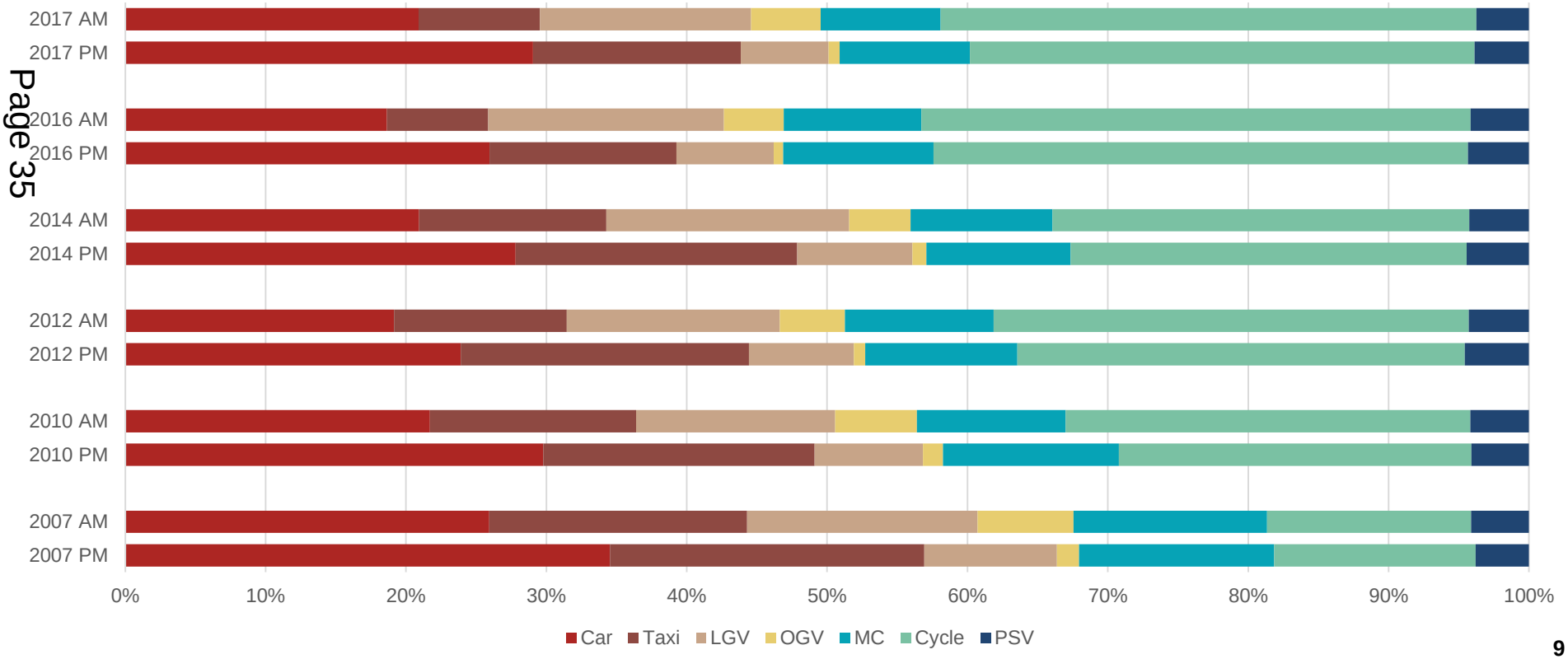
2 Traffic Composition Survey Trend Data

Historical Trends in Peak Modal Split - Comparison

Peak period traffic composition is significantly different when comparing between the morning and evening peak periods. Figure 2.6 below compares the modal split of morning peak (08:00-09:00) and evening peak (17:00-18:00) vehicular traffic by year since 2007. The morning (AM) peak period has had a significantly larger proportion of goods and services traffic (LGVs and OGVs) while the evening (PM) peak period has had a comparatively larger proportion of car and taxi traffic. This is in contrast to the relatively comparable proportions of cycles, motorcycles, and buses counted in the two peak periods.

These observations suggests that while the total volume of motor vehicle traffic has decreased year over year (as described in previous figures), the relative proportions of peak motor vehicle traffic have remained fairly consistent since 2007, with significantly more goods and service vehicles counted in the morning peak and more cars and taxis counted in the evening peak.

Figure 2.6 Comparison of AM peak (08:00-09:00) and PM peak (17:00-18:00) modal split by year



2 Traffic Composition Survey Trend Data

Trends in Traffic Composition

As discussed previously, cycling has seen a significant increase in volume over the last two decades. The rate of growth in cycling across the city between 1999 and 2012 was on average over 20 percent per year, with some years reaching over 50 percent year-on-year growth.

However, growth in cycling began to slow in 2012. Figure 2.7 (right) shows the yearly change in vehicle counts indexed to 1999 values. A curve of best fit added to the cycling curve (hashed green line) shows a peak in 2016.

While this is not a extrapolatory exercise, it does appear that the City counts have reached 'peak cycle' over the last five years, suggesting that significant changes in cycling infrastructure provision and/or travel behaviour may be needed to spur further growth in cycling on City streets.

Figure 2.7 Change in day-time (12hr; 07:00-19:00) vehicle counts across the City, indexed to 1999 values

3

TCS 2017 Data Analysis

3 2017 Data Analysis

2017 Traffic Composition

The 2017 TCS counted more than 642,000 individual vehicle and pedestrian movements over the 24 hour ('all-day') observation period on November 16th across all 15 count sites. Approximately 185,000 motor vehicles, 44,000 cycles, and 413,000 pedestrians were counted (Figure 3.1, right). The 2017 TCS is the first time that pedestrians have been included in counts.

The breakdown of the count data of all 15 sites surveyed is presented in Figure 3.2 below (excluding pedestrians). The three busiest sites counted were Upper Thames Street, New Bridge Street, and Gracechurch Street. No incidents or severe weather conditions were observed on the count day and thus the results presented here are considered indicative of a neutral late-autumn day in the City.

Figure 3.1 2017 all-day traffic composition (without [above] and with [below] pedestrian counts)

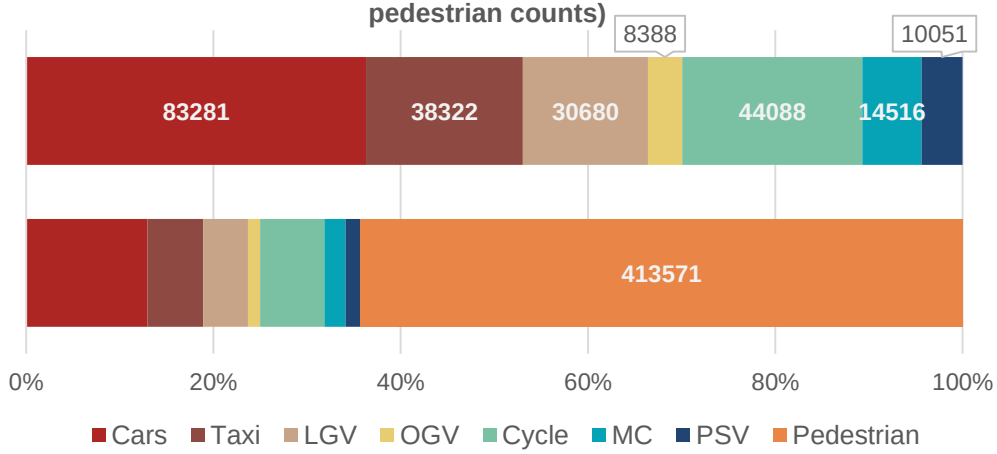
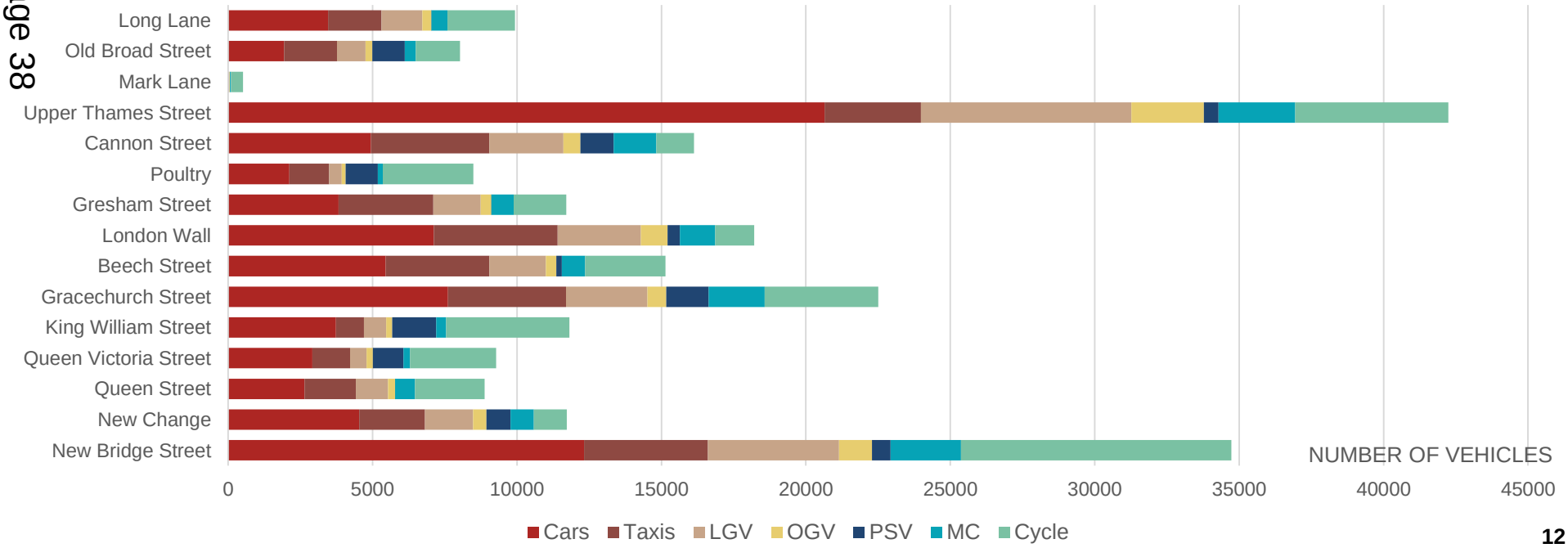


Figure 3.2 2017 all-day traffic composition by site (excluding pedestrians)



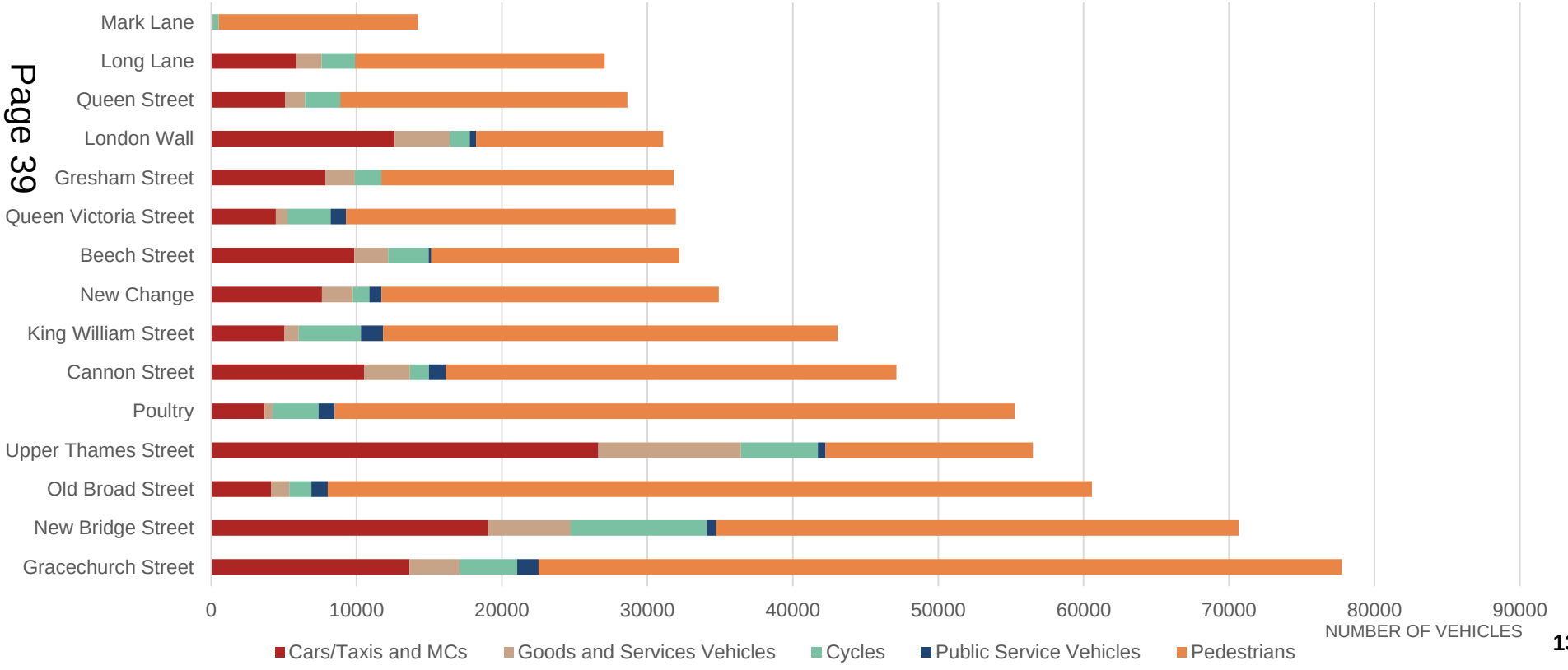
3 2017 Data Analysis

2017 Pedestrian Flows

Including pedestrian counts alongside vehicle counts allows a more comprehensive analysis of people movements on City streets by both motorised and non-motorised modes.

Figure 3.3 below compares the total number of counted motor vehicles (cars, taxis, LGVs, OGVs, motorcycles and mopeds, and PSVs), cycles, and pedestrians at each site (ordered by total movement counted) over the 24 hour period. At most sites the number of pedestrians counted was at least equal to the number of motor vehicles and cycles counted (with the exceptions of London Wall and Upper Thames Street). In some cases, the number of pedestrians counted was up to six times greater than the number of vehicles counted (excluding Mark Lane which is predominantly a pedestrian thoroughfare). Further analysis of the estimated number of people moving by different modes is explored at the end of this Chapter.

Figure 3.3 Comparison of motor vehicle, cycle, and pedestrian counts at each site



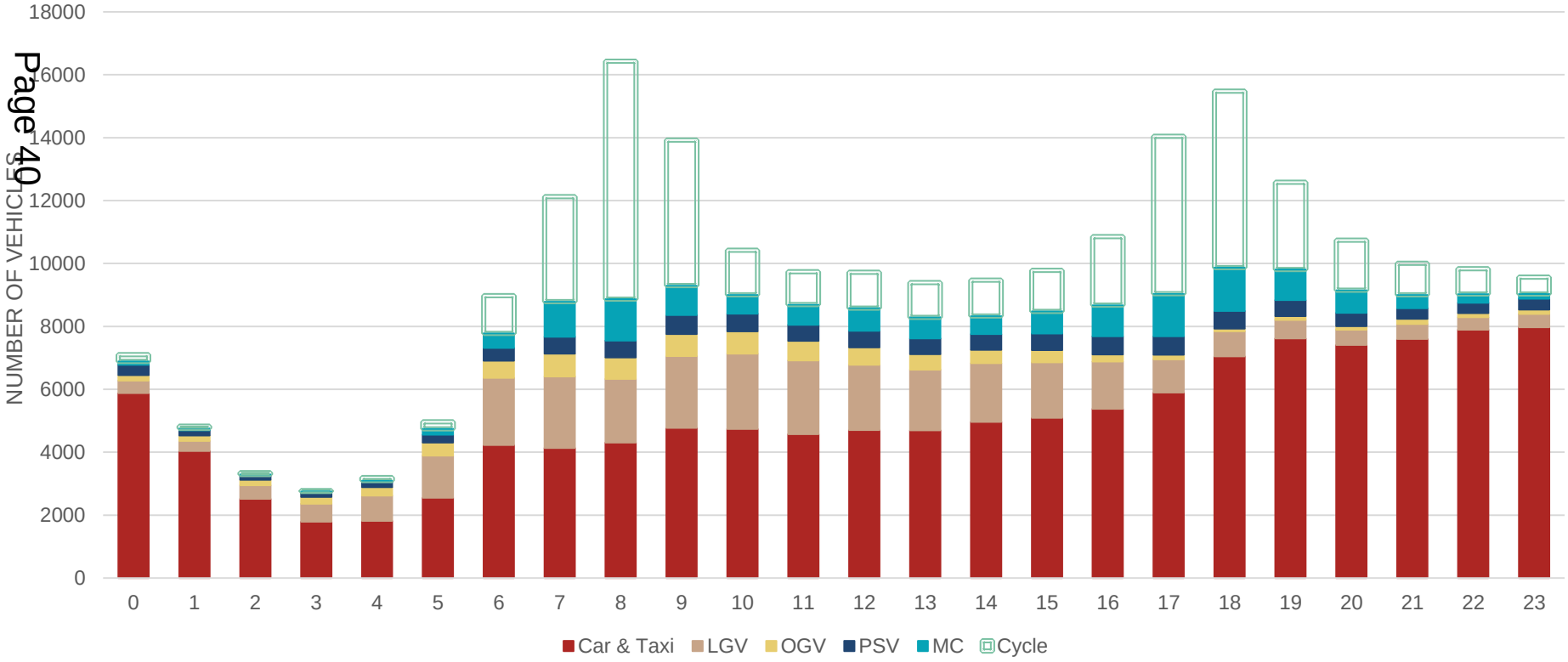
3 2017 Data Analysis

2017 Vehicular Counts by Hour of Day (Time Profiles)

The hour-by-hour profile of the 2017 vehicular counts (excluding pedestrians) is shown in Figure 3.4 below. Motorised modes (shown below in thick-coloured bars; includes cars, taxis, LGVs, OGVs, motorcycles and mopeds, and buses) are observed to reach a level of approximately 8800 counted movements altogether at 07:00 and remain at or around this level for the rest of the 'day-time' period (07:00 to 19:00) and through part of the night-time period (19:00-23:59). Goods and services vehicles make up a significant portion of motorised traffic during the morning and throughout the day and then begin to decline into the evening-time. The 'spare' capacity freed up by the gradual decline in goods and services vehicular traffic was largely utilised by the increasing number of cars and taxis observed on City streets, particularly in the evening hours.

Cycling, in contrast to motor vehicles, is observed to have two distinct peaks – from 08:00 to 10:00 in the morning and from 17:00 to 19:00 in the evening. These observations suggest that motor vehicle traffic is less related to 'peak-time' commuting and more associated with other purposes.

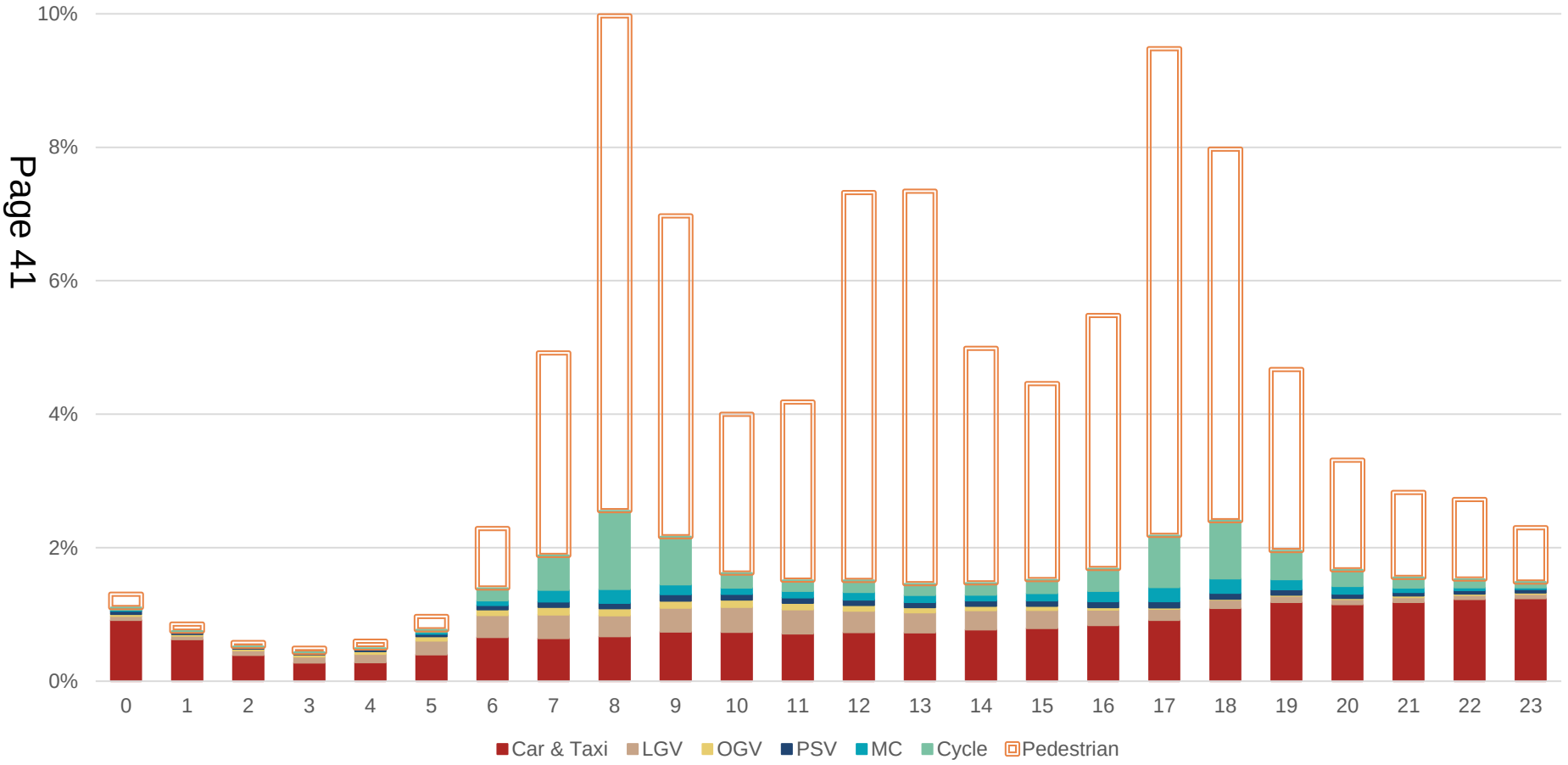
Figure 3.4 2017 vehicular counts by hour of day (excluding pedestrians)



2017 Vehicular and Pedestrian Counts by Hour of Day

Adding pedestrians to Figure 3.4 (previous page) significantly changes the hourly profile of counted traffic. Figure 3.5 below shows the percentage of all-day traffic counted by hour of day and includes all vehicular modes (thick coloured bars) and pedestrians (hollow bars). Three distinct peaks are now observed, corresponding to AM (08:00-10:00), lunchtime (12:00-14:00), and PM (17:00-19:00) pedestrian volume peaks. Significant pedestrian traffic is also observed outside of these periods and into the evening off-peak period (19:00-23:59) which will be looked at further later in this chapter. Overall, there was more pedestrian traffic than vehicular traffic counted for the majority of the day (07:00 to 20:00).

Figure 3.5 All modes counts by hour of day and percentage of daily traffic

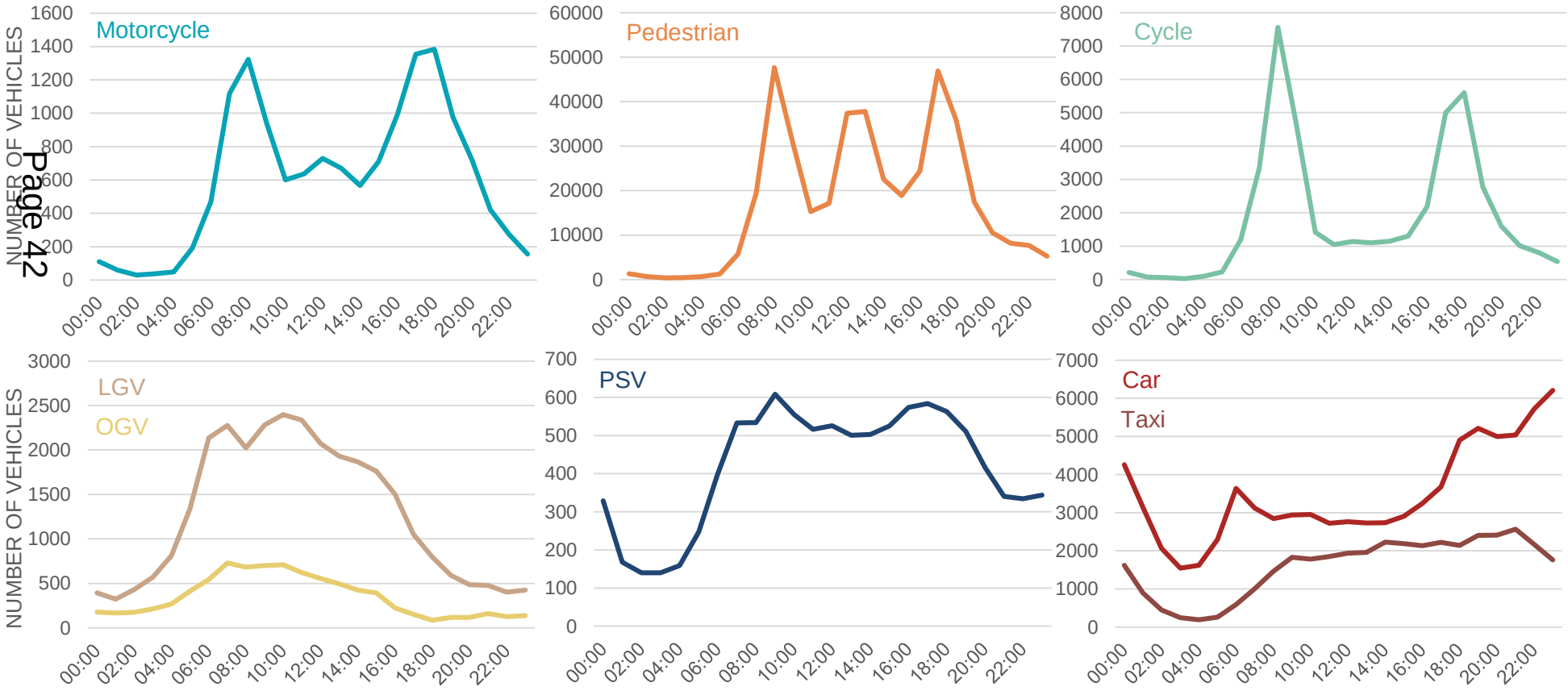


3 2017 Data Analysis

Time Profiles of Each Mode

Each mode of travel was observed to have a distinct time profile. Figure 3.6 below shows the all-day time profiles of each mode (note: different scales are used for each graph). Three modes – motorcycles, cycles, and pedestrians – were observed to have peaks during the commuter peak periods. Motorcycles were less 'peaky' than cycles, suggesting that many motorcycle movements were being made during daytime hours for non-commuting purposes. Goods and services vehicles, particularly LGVs, were shown to peak in the morning and afternoon and steadily decline over the day, reflecting the general profile of freight deliveries observed across London. Public service vehicles were shown to have a relatively flat profile during daytime hours. Finally, cars (including private hire vehicles) and taxis were observed to peak much later in the evening, suggesting these modes did not represent many traditional commuting trips.

Figure 3.6 24 hour time profiles of all modes (different scales used)



Daytime and Night-time Count Volume Comparisons

As the 2017 TCS was conducted over a 24-hour period it was possible to examine and compare 'daytime' (defined as 07:00-18:59) and 'night-time' (defined as 19:00-23:59 and 00:00-06:59) traffic.

Overall, approximately 38 percent of all counted vehicular traffic was recorded during night-time hours, suggesting there is still considerable travel demand in off-peak hours and particularly from 19:00 to 23:59.

The proportion of daytime versus night-time traffic varies considerably between modes. Cars have the greatest proportion of night-time to daytime traffic at over 55 percent. A significant number of buses were also counted during the night-time period across the City, with over a quarter of all bus movements recorded during this time (likely representing the significant number of night bus routes that pass through the City).

Further analysis of night-time journeys is made on the following two pages for cars, taxis, cycles, and pedestrians.

Figure 3.7 Comparison of daytime (light bar) and night-time (dark bar) traffic and pedestrian counts

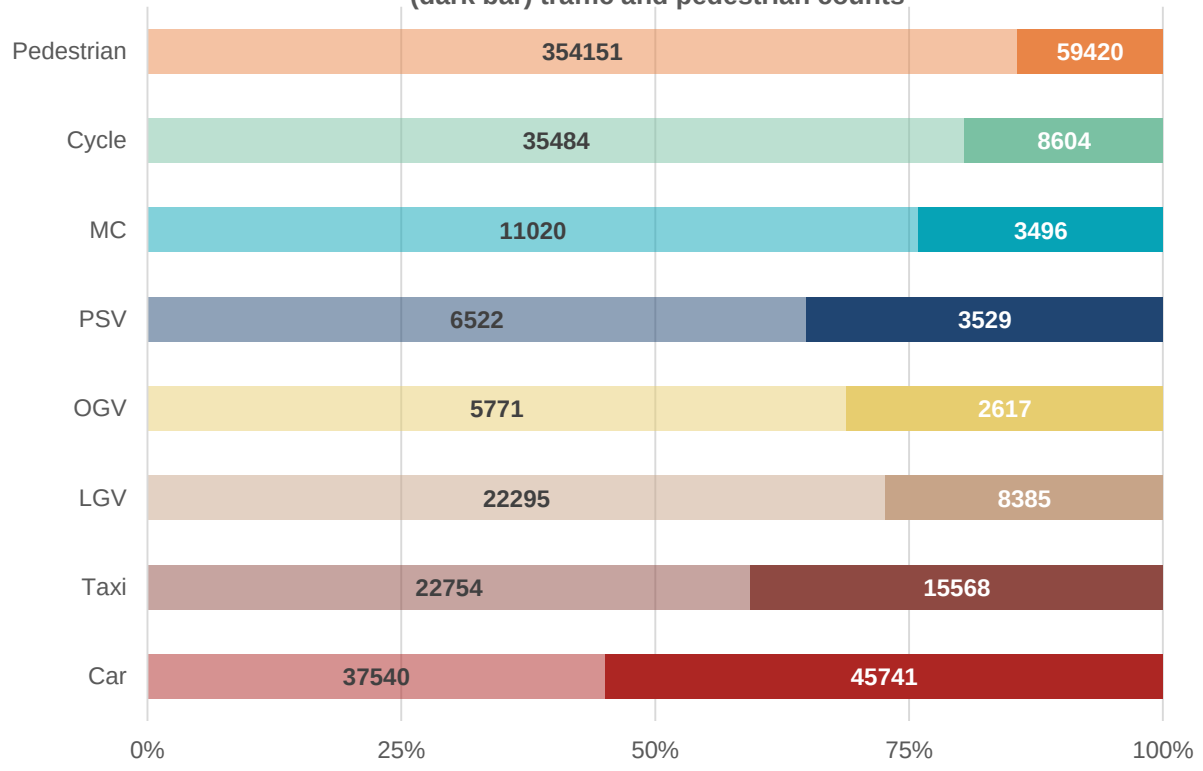
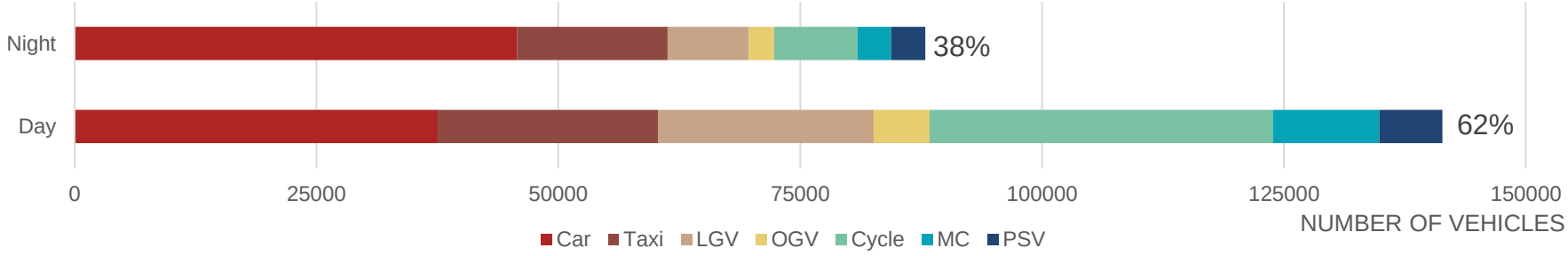


Figure 3.8 Comparison of total daytime and night-time vehicular traffic by mode (excl. pedestrians)



3 2017 Data Analysis

Night-time Count Volume Comparisons

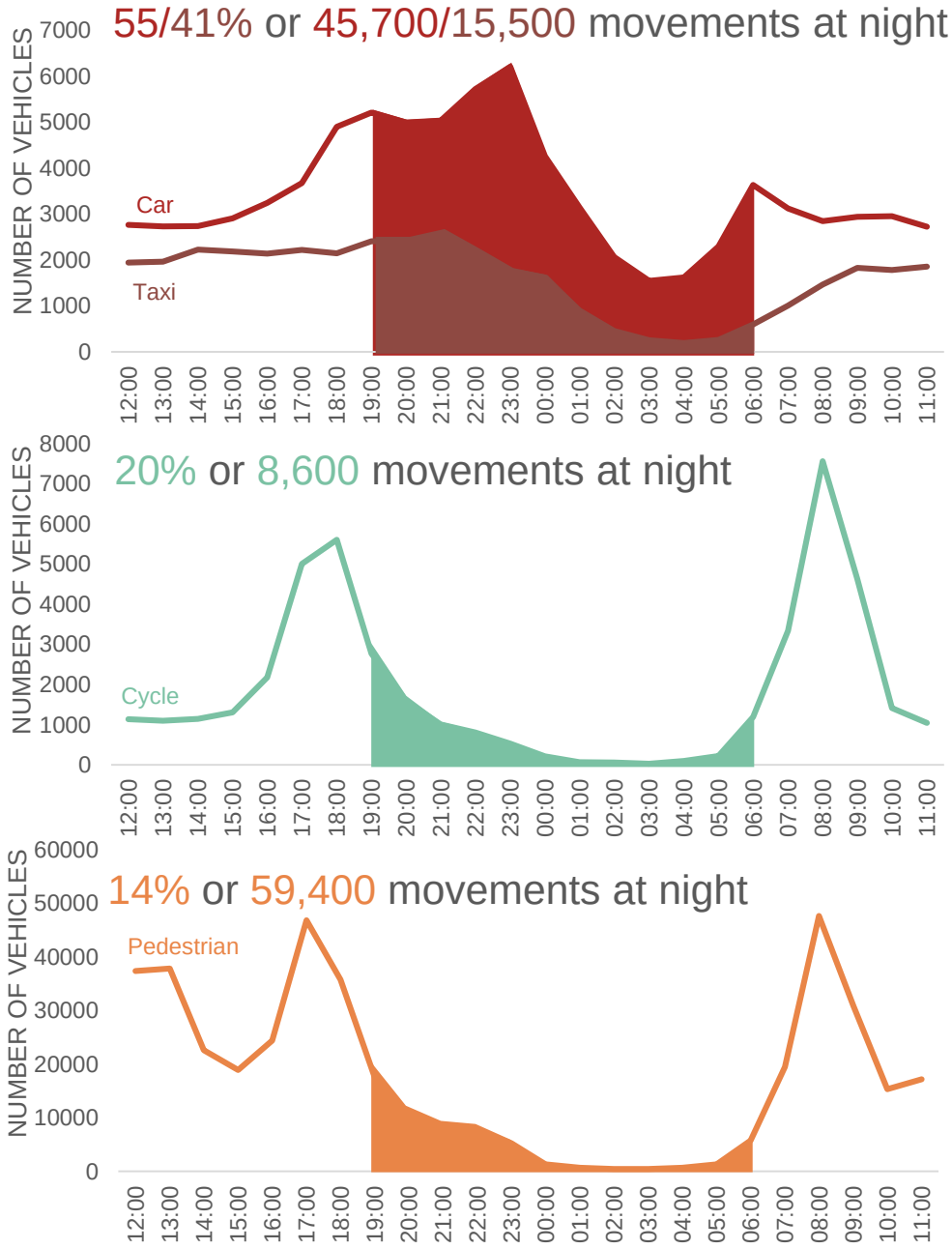
Figure 3.9 (right) shows the total night-time count volumes of cars, taxis, cycles, and pedestrians by hour. Above each chart is the proportion of night-time count volumes of all-day volumes alongside absolute night-time count volumes (also represented on the chart by the coloured area under each time profile line).

As mentioned previously, the majority of car trips and over 40 percent of taxi trips were made during the night-time period. Cars in particular peak at approximately 23:00. This suggests there could be significant private hire and taxi activity in the City in off-peak hours.

Despite the darker conditions, approximately 20 percent of all counted cycling trips were made during the night-time period, with cycling volumes staying relatively high until 22:00. There were approximately the same number of cyclists counted across the City from 21:00 to 22:00 as from 11:00 to 12:00. Excluding pedestrians, cyclists were the third most common street user in the night-time period.

Pedestrians were the single largest street user group in the night-time period, accounting for over 40 percent of all counted movement. While only 14 percent of total pedestrian traffic was observed in the night-time period the number of pedestrians counted was greater than the total number of taxis, LGVs, OGVs, PSVs, motorcycles and mopeds, and cycles counted combined.

Figure 3.9 Night-time time profiles of cars, taxis, cycles, and pedestrians (different scales)

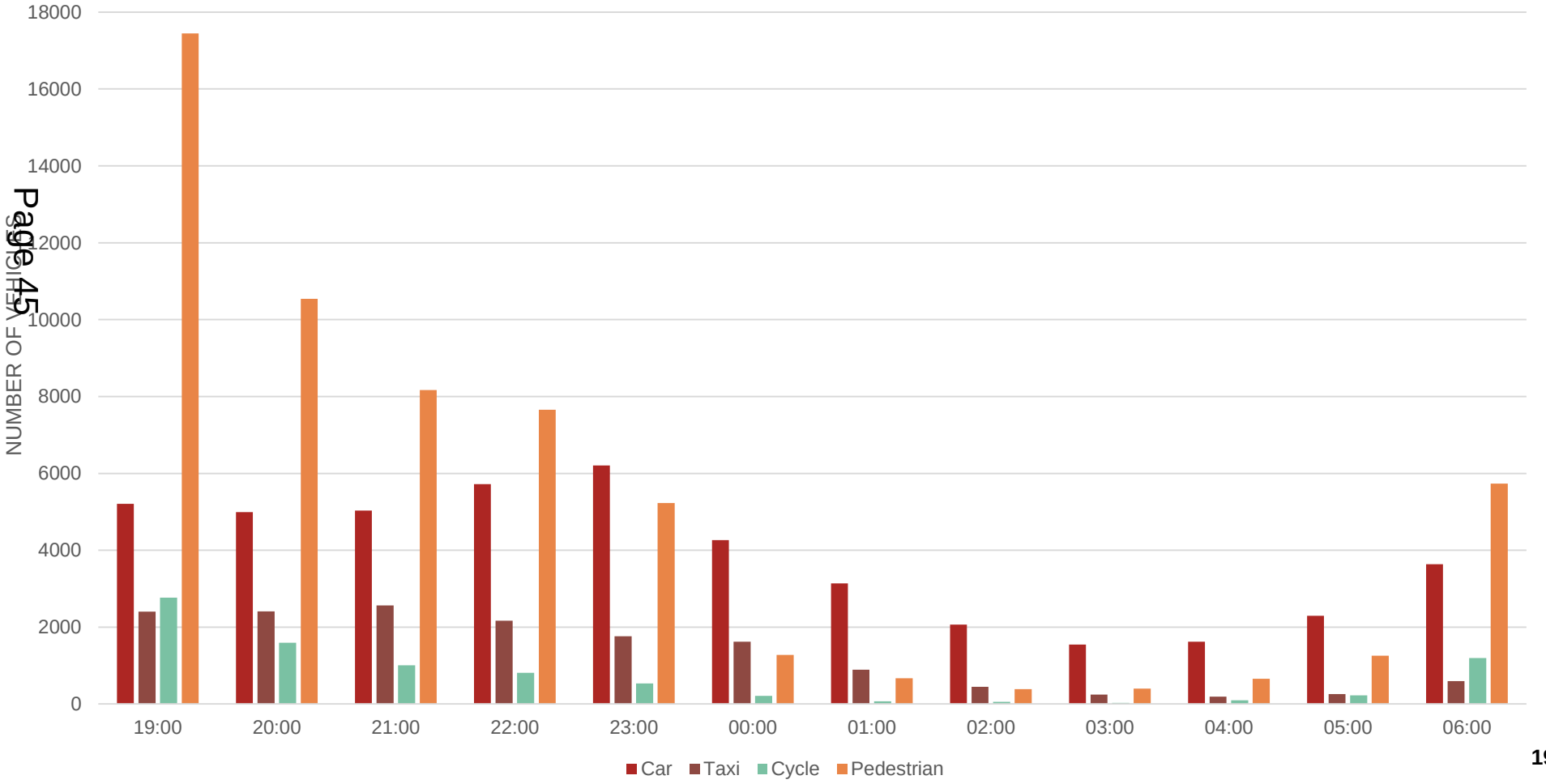


3 2017 Data Analysis

Night-time Count Volume Comparisons

Figure 3.10 (below) compares the volumes of counted car, taxi, cycle, and pedestrian traffic over the night-time period. There are more pedestrians counted on City streets between 19:00 and 23:00 than any other single mode, suggesting that a significant proportion of people moving around the City at night are doing so on foot. There are also more cycles than taxis on City streets from 19:00 to 20:00, suggesting that cycle travel is also a significant off-peak travel mode on City Streets.

Figure 3.10 Night-time time profiles of cars, taxis, cycles, and pedestrians



3 2017 Data Analysis

People Moved and Space Utilised by Modal Group

The total street space taken and number of people moved by each mode were approximated using count data and Private Car Unit (PCU) conversions and occupancy estimates. Figure 3.11 shows different modal groups' street space utilisation, estimated people movement, and counted volumes as a proportion of all traffic.

Private vehicles – cars, taxis, and motorcycles/mopeds – utilised the most street space of any mode – over 53 percent – while only carrying an estimated quarter of all people travelling on City streets. While buses only made up two percent of all counted vehicles, they carried an estimated19 percent of all people travelling on City streets (compared to 21 and 19 percent for private vehicles respectively). Buses and private vehicles carried approximately the same number of people in the City while making up an estimated 9 and 53 percent of total street space usage respectively.

People on foot also made up an estimated 9 percent of total street space usage while making up an estimated one-half of total people movements. This suggests that the City's pavements – which often make up less than 25 percent of total street space – move the majority of people travelling on City streets.

Figure 3.11 Comparison of estimated street space utilisation, estimated people moved, and counted vehicles/pedestrians by type