Public Document Pack

# Planning and Transportation Committee

**Date:** **TUESDAY, 20 NOVEMBER 2018**

**Time:** **11.00 am**

**Venue:** **LIVERY HALL - GUILDHALL**

**Members:**

Christopher Hayward (Chairman)
Deputy Alastair Moss (Deputy Chairman)
Munsur Ali
Rehana Ameer
Randall Anderson
Peter Bennett
Sir Mark Boleat
Mark Bostock
Deputy Keith Bottomley
Henry Colthurst
Peter Dunphy
Stuart Fraser
Marianne Fredericks
Alderman Prem Goyal OBE JP
Graeme Harrower
Christopher Hill
Deputy Jamie Ingham Clark
Alderman Gregory Jones QC
Shravan Joshi
Oliver Lodge
Alderman Nicholas Lyons
Natasha Maria Cabrera Lloyd-Owen
Andrew Mayer
Deputy Brian Mooney
Sylvia Moys
Barbara Newman
Graham Packham
Susan Pearson
Judith Pleasance
Deputy Henry Pollard
James de Sausmarez
Oliver Sells QC
Graeme Smith
William Upton
Alderman Sir David Wootton

**Enquiries:** **Gemma Stokley**
**tel. no.: 020 7332 3414**
**gemma.stokley@cityoflondon.gov.uk**

**Lunch will be served in Guildhall Club at 1PM**
**N.B. Part of this meeting could be the subject of audio or visual recording**

**John Barradell**
**Town Clerk and Chief Executive**

# AGENDA

## Part 1 - Public Agenda

1. **APOLOGIES**

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

3. **MINUTES**
To agree the public minutes and summary of the meeting held on 30 October 2018.

**For Decision**
(Pages 1 - 16)

4. **MINUTES OF THE STREETS AND WALKWAYS SUB COMMITTEE**
To receive the *draft* minutes of the Streets and Walkways Sub Committee meeting held on 23 October 2018.

**For Information**
(Pages 17 - 26)

5. **DELEGATED DECISIONS OF THE CHIEF PLANNING OFFICER AND DEVELOPMENT DIRECTOR**
Report of the Chief Planning Officer and Development Director.

**For Information**
(Pages 27 - 38)

6. **VALID PLANNING APPLICATIONS RECEIVED BY DEPARTMENT OF THE BUILT ENVIRONMENT.**
Report of the Chief Planning Officer and Development Director.

**For Information**
(Pages 39 - 42)

7. **ANNUAL ON-STREET PARKING ACCOUNTS 2017/18 AND RELATED FUNDING OF HIGHWAY IMPROVEMENTS AND SCHEMES**
Report of the Chamberlain.

**For Information**
(Pages 43 - 46)

8. **REVENUE AND CAPITAL BUDGETS - 2019/20**
Joint report of the Chamberlain, the Director of the Built Environment and the Director of Open Spaces.

**For Decision**
(Pages 47 - 70)

9. **PUBLIC LIFT REPORT**
Report of the City Surveyor.

**For Information**
(Pages 71 - 72)

10. **VENTILATION & EXTRACTION REQUIREMENTS FOR RESTAURANTS/CAFES**
Report of the Chief Planning Officer and Development Director.

**For Information**
(Pages 73 - 170)

11. **ROAD DANGER REDUCTION & ACTIVE TRAVEL PLAN 2018 -2023**
Report of the Director of the Built Environment.

**For Decision**
(Pages 171 - 266)

12. **DRAFT LIP DELIVERY PLAN 2019/20 TO 2021/22**
Report of the Director of the Built Environment.

**For Decision**
(Pages 267 - 308)

13. **TRANSPORT FOR LONDON FUNDING: LIP ANNUAL SPENDING SUBMISSION 2019/20, LIVEABLE NEIGHBOURHOOD.**
Report of the Director of the Built Environment.

**For Decision**
(Pages 309 - 314)

14. **DISCONTINUANCE OF THE BROAD STREET HOUSE CITY WALKWAY, THE 99 BISHOPSGATE CITY WALKWAY AND THE 55 BISHOPSGATE CITY WALKWAY**
Report of the Director of the Built Environment.

**For Decision**
(Pages 315 - 328)

15. **REVIEW OF PROJECTS WITHIN THE BUILT ENVIRONMENT DIRECTORATE**
Report of the Director of the Built Environment.

**For Decision**
(Pages 329 - 336)

16. **CITY CORPORATION'S PROPOSED APPROACH TO CARBON OFFSETTING**
Report of the Director of the Built Environment.

**For Information**
(Pages 337 - 354)

17. **CONSULTATION ON NOISY SATURDAY CONSTRUCTION WORK ACTIVITIES IN THE CITY OF LONDON**
Report of the Director of Markets and Consumer Protection.

**For Decision**
(Pages 355 - 438)

18. **OUTSTANDING ACTIONS**
Report of the Town Clerk.

**For Information**
(Pages 439 - 448)

19. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE COMMITTEE**

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

21. **EXCLUSION OF THE PUBLIC**
MOTION – That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following items on the grounds that they involve the likely disclosure of exempt information as defined in Part I of the Schedule 12A of the Local Government Act.

**For Decision**

**Part 2 - Non-public Agenda**

22. **NON-PUBLIC MINUTES**
To agree the non-public minutes of the meeting held on 30 October 2018.

**For Decision**
(Pages 449 - 450)

23. **NON-PUBLIC MINUTES OF THE STREETS AND WALKWAYS SUB COMMITTEE**
To receive the non-public *draft* minutes of the Streets and Walkways Sub Committee meeting held on 23 October 2018.

**For Information**
(Pages 451 - 452)

24. **DEBT ARREARS - BUILT ENVIRONMENT (P&T COMMITTEE) - PERIOD ENDING 30TH SEPTEMBER 2018**
Report of the Director of the Built Environment.

**For Information**
(Pages 453 - 460)

25. **NON-PUBLIC QUESTIONS ON MATTERS RELATING TO THE WORK OF THE COMMITTEE**

26. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT AND WHICH THE COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE PUBLIC ARE EXCLUDED**

**Any drawings and details of materials submitted for approval will be available for inspection by Members in the Livery Hall from Approximately 9:30 a.m.**

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# PLANNING AND TRANSPORTATION COMMITTEE

## Tuesday, 30 October 2018

**Minutes of the meeting of the Planning and Transportation Committee held at the Guildhall EC2 at 10.00 am**

**Present**

**Members:**

Christopher Hayward (Chairman)
Deputy Alastair Moss (Deputy Chairman)
Munsur Ali
Randall Anderson
Peter Bennett
Sir Mark Boleat
Mark Bostock
Deputy Keith Bottomley
Peter Dunphy
Stuart Fraser
Marianne Fredericks
Alderman Prem Goyal OBE JP
Graeme Harrower
Christopher Hill
Deputy Jamie Ingham Clark
Alderman Gregory Jones QC
Shravan Joshi
Oliver Lodge
Alderman Nicholas Lyons
Natasha Maria Cabrera Lloyd-Owen
Andrew Mayer
Deputy Brian Mooney
Sylvia Moys
Barbara Newman
Graham Packham
Susan Pearson
Graeme Smith
Alderman Sir David Wootton

**Officers:**

| | | |
|---|---|---|
| Angela Roach | - | Assistant Town Clerk |
| Deborah Cluett | - | Comptroller & City Solicitor's Department |
| Carolyn Dwyer | - | Director of Built Environment |
| Annie Hampson | - | Chief Planning Officer & Development Director |
| Zahur Khan | - | Department of the Built Environment |
| Paul Beckett | - | Department of the Built Environment |
| Paul Monaghan | - | Department of the Built Environment |
| Bruce McVean | - | Department of the Built Environment |
| Iain Simmons | - | Department of the Built Environment |
| Peter Shadbolt | - | Department of the Built Environment |
| Joseph Anstee | - | Town Clerk's Department |
| Gordon Roy | - | Department of the Built Environment |
| Jennifer Ogunleye | - | Town Clerk's Department |

1. **APOLOGIES**

Apologies for absence were received from Henry Colthurst, Deputy Henry Pollard, James de Sausmarez, Oliver Sells and William Upton.

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

Peter Bennett declared an interest in Item 7 by virtue of his being a Member of the Board of Trustees of the City of London Academies Trust.

Susan Pearson declared a pecuniary interest in Item 7 and confirmed that as she had not been granted dispensation would neither speak nor vote on this item.

Alderman Gregory Jones declared an interest in Item 11 as a Liveryman of the Leathersellers' Company and confirmed he would withdraw from the meeting for the consideration of the item.

3. **MINUTES**

The Committee noted that Sir Brian Langstaff was referred to in places as 'Sir Langstaff' and this should be amended so that he was referred to as Sir Brian Langstaff consistently.

The Committee noted that the church referred to on page 10 was a Welsh Church and not a Jewish Church, and that this should be amended.

**RESOLVED** – That, pending the above corrections, the minutes of the meeting held on Monday 8 October 2018 be agreed as a correct record.

Matters Arising

With regards to the application relating to Great Arthur House considered at the meeting of the Committee on 11 September, a Member asked officers for an update on the issue raised regarding the ceiling height in one of the units.

The Chief Planning Officer and Development Director responded that one room in one of the units had a ceiling height lower than the guideline height. The Department of Community and Children's Services, as the applicant, was investigating how to deal with this and may need revised planning consent later on.

4. **MINUTES OF THE LOCAL PLANS SUB COMMITTEE**

The Committee received the minutes of the Local Plans Sub-Committee meeting held on 19 September 2018 and the draft minutes of the Local Plans Sub-Committee meeting held on 9 October 2018.

Members suggested three amendments to the minutes of the meeting on 19 September 2018, with regards to Core Strategic Policy CSXX: Planning Contributions and Policy DM XX: Viability Appraisals. It should be clarified that it was the Housing Fund rather than the Corporation that lost out if the values used were not updated. A Member added that the policy needed to distinguish between the land values and the price paid, as they were not always the same. Members also noted a missing full stop in the minute relating to Core Strategic Policy CSXX: Aldgate and Tower. The Chairman advised that the amendments could be made at the next meeting of the Sub-Committee.

**RESOLVED** – That the Sub-Committee minutes be noted.

5. **DELEGATED DECISIONS OF THE CHIEF PLANNING OFFICER AND DEVELOPMENT DIRECTOR**

The Committee received a report of the Chief Planning Officer and Development Director in respect of development and advertising applications determined by the Chief Planning Officer and Development Director or those so authorised under their delegated powers since the last meeting.

**RESOLVED** – That the report be noted.

6. **VALID PLANNING APPLICATIONS RECEIVED BY DEPARTMENT OF THE BUILT ENVIRONMENT**

The Committee received a report of the Chief Planning Officer and Development Director detailing valid development applications received by the Department of the Built Environment since the last meeting.

A Member commended the potential restoration of the pump outside 69 Leadenhall Street, in Aldgate ward, as it would be a valuable facility.

**RESOLVED** – That the report be noted.

7. **LAND TRANSACTIONS - FORMER RICHARD CLOUDESLEY SCHOOL SITE**

The Committee considered a report of the Town Clerk concerning changes to the land transaction arrangements previously authorised by the Committee in order to ensure the land is held appropriately and to remove the risk of the scheme being impeded by injunction due to Right of Light infringements resulting from the scheme. The Committee noted a printing error in the report, that recommendation 2 should read that the Committee authorise the appropriation of the City's Land from housing purposes to the planning purposes of facilitating the development of a new school and social housing.

A Member queried the recommendation of the report and argued that it was outside the Committee's terms of reference, because the authority delegated to the Committee to appropriate by Court of Common Council was subject to the criteria for such appropriation as laid down by the Court of Common Council all being met. One of the criteria was whether the rights could be reasonably released by agreement. As there had not been an adequate attempt to remove the risk of the scheme being impeded through negotiation, and as the powers were to be used exceptionally as a last resort, it was felt that the criteria were not met. Therefore, recommendation was beyond the authority of the Committee to approve. The Planning Protocol states that applications regarding the City's land must not be subject to preferential treatment but subject to the same rigorous evaluation as other applications. There was a report relating to a request by a third-party applicant at item 11, and the same considerations needed to be applied equally in both cases. If the Committee approved the recommendation it would be acting against procedure, and at risk of not complying with Protocol, and therefore the Committee should vote it down.

The Comptroller and City Solicitor responded to the points raised, advising the Committee that they had been carefully considered in the preparation of the report. Officers had also obtained the advice of leading counsel on the report. The key difference between this case and the case at item 11 was that in this case most of the land was not yet owned by the developer and the majority of the recommendations in the reports related to arrangements for acquisition. It had been considered premature to initiate negotiations until the acquisition arrangements were further advanced. Court of Common Council had delegated to the Committee authority to consider appropriations, and the decision was within the Committee's responsibilities. Rights holders had been written to and made aware of the proposal, and no responses had been received from those rights holders.

In response to a request from the Chairman, the Comptroller and City Solicitor confirmed that leading counsel was satisfied that the Committee had authority to make the decision.

A Member replied that the authority to disapply the criteria had not been delegated, only to apply it.

A Member argued that the problem was that the report was unhelpful. Whilst there had been alternative arrangements considered earlier in the process, the land was being transferred between local authority purposes, to be occupied for education and housing uses. The case was entirely different to the case to be considered at item 11.

A Member stated that action under Section 203 had to be in the public interest, and that the interests of Golden Lane and Islington residents had not been taken into account.

The Comptroller and City Solicitor drew the Committee's attention to the Court of Common Council resolution delegating authority to determine appropriations set out in the agenda at page 485, part b of which stated that the Planning & Transportation Committee was authorised to determine whether such acquisition or appropriation may be authorised. The Committee had considered all the criteria, including grounds for not requiring compliance with one of the criteria. and the Committee was therefore within its authority to make the decision. The rights of affected residents had been taken into account and the actionable injuries caused were set out in appendix 1A to the report for the Committee'. These were to be weighed against the public benefits of the proposal. The area of land had been held for housing purposes, but had now been declared surplus to that housing purpose and the proposed planning purpose involved part education use and part social housing use.

A Member responded that on this basis, the Committee's attention could be drawn to all the relevant criteria and could decide to waive all the relevant criteria.

Arising from the discussion, the application was then put to the vote amongst eligible Committee Members with 16 voting for and 3 voting against the application, with 5 abstentions.

**RESOLVED** – That the Planning & Transportation Committee authorise the appropriation of the City's Land from housing purposes to the planning purposes of facilitating the development of a new school and social housing.

8. **BLOOMBERG EUROPEAN HEADQUARTERS WINS THE 2018 STIRLING PRIZE**

The Committee received a report of the Chief Planning Officer and Development Director informing Members that Bloomberg's European Headquarters at 3 Queen Victoria Street had won the RIBA Stirling prize for architecture. The Chairman advised Members that the reconstruction of the Roman Temple of Mithras, hosted within the building had also received an award for Best Public Presentation of Archaeology at the British Archaeological Awards.

The Chairman praised the unique building's incredible design and sustainability. A Member stated that the inside of the building was also spectacular and recommended a Planning & Transportation Committee Members visit to the building. The Chairman supported this suggestion and asked officers to look into arranging a visit for Members, although Members were advised that the building could not accommodate the next Committee dinner.

A Member queried when the underground exit would be opened, and commended the leap of faith taken in using fresh air rather than an Air Conditioning system for temperature control throughout the building. With the upcoming challenges of climate change, if this proved efficient in summer and winter it would provide great evidence and an example for others to follow. The Director of the Built Environment responded that the underground exit would be open in approximately one month and officers would try to get further details from TfL about a possible opening ceremony.

The Committee gave thanks to officers for helping the building come to fruition and congratulated architects Foster & Partners on their success.

**RESOLVED** – That the report be noted.

9. **CITY OF LONDON LOCAL PLAN REVIEW: PROPOSED DRAFT PLAN**

The Committee considered a report of the Director of the Built Environment seeking agreement for the draft Local Plan, known as City Plan 2036, to be published for public consultation.

The Chairman introduced the item and thanked the Local Plans Sub-Committee for their scrutiny so far. The Plan set out the way forward for the City to enable and service sustainable growth over the coming years. The draft was for Members to agree to publish for consultation before it was brought back to the Committee in Spring 2019.

The Director of the Built Environment introduced the report, and advised Members of larger-scale maps tabled for their reference. A number of typing and cross-referencing errors had already been noted and would be picked up. The Committee was also asked to delegate authority to the Chairman and Deputy Chairman to approve the final draft version to be published for consultation, after Committee Members' comments had been taken into account.

The document was long but still relatively concise, and conformed generally with national policy and the Mayor of London's strategic policy approach. The plan complemented the draft Transport Strategy and the two had been prepared in tandem. Land use policies were complemented by transport aims and objectives and it was recommended that the two strategies be read together. A briefing session had been held for Members two weeks previously and a number of changes had been made based on suggestions received. The second draft would be presented next year after considering responses to the consultation, and the document would then be referred to the Planning Inspectorate, before its eventual adoption in 2020.

Two context points were raised for Members. The Plan emphasised the need to plan for sustainable growth in the economy and employment as well as limited housing growth. Intensification would need to be managed successfully, making full use of available space to facilitate efficient movement around the City. The public consultation would run from 12 November 2018 until 28 February 2019.

A Member stressed the need to do the consultation process justice and engage all stakeholders by making it clear what was new, what had changed, and how the new strategies would work together. The Chairman added that the executive summary needed to bring out the highlights.

A Member queried what definition of affordable housing was used in the Housing Policy, and whether the provision of social housing outside the City was off the table.

A Member added that there were many recommendations and future requirements for the Committee to take account of, and that it would be important to be able to refer to and know the document well when considering future applications.

A Member raised a strategic point, that if the Plan committed to two million square metres of extra floor space based on the there being 100,000 extra people in the City over the next 18 years, the Plan should stress that the numbers were a forecast, and could be determined by the Corporation on an ongoing basis based on the evidence. It was also suggested that it was not essential to looking exclusively within the City boundary, and that neighbouring boroughs be encouraged to permit office development that effectively expanded the City. Furthermore, the aspirations on open spaces were good but were too vague. Open spaces could be insisted upon through the development

process and the aim should be that open spaces grow at least as fast as the population.

The Chairman added that businesses were not especially concerned with local authority boundaries, noting that there was already some spill-over. The Corporation wanted to benefit London as a whole. There had been meetings with Westminster and Camden about potential ways to co-operate and there would be further meetings with them and other boroughs. It was important not to lose sight of the open spaces issue.

A Member stressed the need to make it easy for the community and stakeholders to engage with the process and suggested lots of pictures online and workshops, with an online consultation process that was easy to navigate.

A Member stated that it would be difficult to absorb significant growth whilst reducing carbon footprint, as realistically more people generated a larger carbon footprint. Whilst there would be new technologies, a zero-carbon economy would be difficult to achieve.

A Member said that pollution was a significant issue in the Eastern part of the City such as Portsoken ward, and the Plan needed to adequately consider the residents that would be caught up in the growth of businesses and population.

A Member queried why the Local Plan and the Transport Strategy had different timeframes if they were complementary, as the Plan was to 2036 and the Transport Strategy to 2043, adding that if it couldn't be changed then it could be explained why. The Chairman responded that the Local Plan period was prescribed in regulations.

A Member argued that the City would ultimately be shaped by businesses and the demand for space, and the Corporation's forecasts of growth were no better than other forecasts, particularly given the current uncertainty around Brexit. However, there were still important issues to tackle such as pollution, and therefore it was important to concentrate on the shorter timeframe, to have realistic plans and continue with the central themes. A Member added that whilst the Corporation could not make growth happen, policies needed to be in place that would accommodate it. Whilst financial services jobs had spread out somewhat, recent investment driven by the Far East was a statement of longer-term confidence in the City and enough stock needed to be in place to keep interest.

A Member picked up on the issue of open spaces and asked what comparisons had been made between rooftop viewing galleries and their effect compared to open spaces, as they were not convinced the rooftop viewing galleries were as valuable.

The Director of the Built Environment responded to the points raised. On managing growth and intensification, there was some local discretion but also a requirement to conform generally with regional and national planning policy. The projection of 100,000 extra people was from the Greater London Authority,

and whilst it may not turn out to be accurate the City needed to plan for this broad scale of growth. The City's commercial activities did spread beyond the City boundary so working with neighbouring boroughs was important going forward.

The Local Plan and Transport Strategy would aim to break the link between economic growth and carbon footprint growth by using renewable energy sources and using smart technology to ensure that existing issues were addressed and were not exacerbated. This would also improve air quality. Good growth which does not increase the carbon footprint could be achieved if the right policies were implemented well.

The 15 years set out for the Local Plan was a procedural standard, whilst the Transport Strategy looked further ahead. The aims of both could be fully achieved and they were not in conflict with each other. It was recognised that growth did not all have to be within the City boundaries.

The rooftop viewing galleries were more of a benefit for visitors to the City rather than residents or workers, but this was not necessarily a bad thing, although they could be an issue if they caused congestion. The approach to viewing galleries had recently been revised with an emphasis on amenity space within buildings

The definition used for affordable housing would be included in the glossary when this was added in. The Local Plan put an emphasis on the provision of social housing, reflecting discussions with the Department of Community and Children's Services. The focus would be on on-site provision rather than contributions elsewhere. Social housing provided outside of the City would not be counted towards the Local Plan targets which are just for the City.

Officers were working on Story Maps for the consultation which were more interactive and engaging. A consultation strategy was being devised and officers were looking at drop-in sessions and social media campaigning amongst other things. The aim was to engage groups that were harder to reach. A Member suggested using aspects of the successful consultations so far on the Transport Strategy and try to reach out to commuters.

Arising from the discussion, the recommendation was then put to the vote amongst eligible Committee Members with 21 voting for and 0 voting against the application, with 1 abstention.

**RESOLVED** – That the Planning & Transportation Committee:

a) Agree the proposed draft Local Plan as set out at Appendix 1 of the report for public consultation; and

b) Authorise the Director of the Built Environment, in consultation with the Chairman and Deputy Chairman, to make further non-material changes and editorial changes prior to public consultation.

10. **DRAFT CITY OF LONDON TRANSPORT STRATEGY**

The Committee considered a report of the Director of the Built Environment seeking agreement for the draft Transport Strategy to be published for public consultation.

The Director of the Built Environment introduced the item. This was the first long-term Transport Strategy devised by the City and reflected big changes in technology in recent years. The strategy would run alongside the Mayor of London's strategy which ran for 25 years. The strategy was about enabling and supporting growth, and would be reviewed every five years, with the supporting three-year Delivery Plan updated on an annual basis.

The process had been ongoing for ten months so far, with around 2500 responses to consultation already undertaken. There had been input from a Citizens Panel and a Transport Strategy Board, as well as from the Local Plan and Streets & Walkways Sub-Committees. A track-changed version of the draft strategy that incorporated comments from Members of the Streets & Walkways Sub-Committee was tabled for the Committee's information.

The strategy contained 10 main outcomes and 54 proposals. The strategy would create more attractive streets with more pedestrian priority, and aimed for lower emissions including a zero-emissions zone. Traffic reduction would help facilitate this and would require a co-ordinated approach. Internal and external partnerships would be key in delivering the strategy, and officers were exploring combined Committee meetings to oversee the delivery. The three-year Delivery Plan (for TfL funded projects) would be brought to the next Committee meeting. The consultation would include a bespoke website, and drop-in sessions and briefing sessions would also be arranged.

The Chairman commended officers for a challenging, radical and ambitious strategy that charted an exciting future, and opened up the discussion to the Committee.

A Member suggested that the strategy should include comparisons with the City's competitors such as Manhattan and Singapore. The Chairman responded that visits to New York, Paris and Stockholm were undertaken during the development of the strategy to compare London's progress on transport issues.

A Member expressed their pleasure at the focus on pedestrian priority but asked if the strategy could go further, and suggested that deliveries be night-time only. The riverside walkway was aimed for 2020 rather than 2022 and officers were asked to amend this in the document.

A Member added that the City was different as it was built on Roman roads and many other cities were rebuilt extensively after the Second World War, and asked what would happen to cycling if the area was pedestrianised, as the City could not implement networks like those in Amsterdam.

A Member commended the process in developing the strategy, particularly in consulting stakeholders on what they needed before drawing up proposals. There were ground-breaking suggestions in the proposal and it was important for the Corporation to work with the government and TfL to try and make them happen. Public transport was expensive in London and there was a need to bring the costs down. It was also important for joined-up working at Member and officer level to make full use of the Corporation's powers and resources.

Officers were asked for assurance that major projects such the new Museum of London and Centre for Music projects had been factored in and co-ordinated into the strategy.

A Member queried whether some of the target dates could be more ambitious, particularly with regards to electric vehicle charging points and a sustainable logistics centre, which some cities already had.

A Member said that the proposal for a 15mph speed limit could be awkward and could be counter-productive if drivers were forced to drive below the limit. Cyclists were not covered by speed limits and the strategy needed to be clear in its position on dangerous or aggressive cycling.

A Member suggested that proposal 19 on accessibility to underground stations could be more ambitious. Whilst the Corporation did not control TfL it had control over many of the buildings adjacent to stations, and developers could be urged to work with TfL to improve access and accessibility to stations.

The Director of the Built Environment thanked Members for their comments and responded to the points raised. The targets around zero-emissions were ambitious but there was a need to be bold. Officers had looked at other cities and hosted a workshop in the City to learn but also develop the City's own approach to the issue.

It was unclear how far technology would reduce the need for a speed limit in the future, but a 15mph limit would reflect the uniqueness of the City. However, all policies would be kept under review. Cycling had grown in terms of numbers and distances and the aim was to promote a relaxed and calmer culture of cycling in the City. Dutch infrastructure would be used around London where there was space, and safer behaviours needed to be encouraged.

Air quality would be looked at on an ongoing basis as proposals were developed. Extensive modelling was being undertaken on impact and ambitious targets and timeframes were put in place as it was an urgent public health issue.

The three-year delivery plan would provide more detail on timescales for projects such as the riverside walkway and the logistics centre, and major projects had been factored into the Transport Strategy plans, with specific plans to help facilitate the projects.

The pedestrian priority streets would not be fully pedestrianised, as access for vehicles would be wanted where it was necessary. The Corporation would make clear that it wanted to work with the government and TfL and encourage better affordability on public transport. The points about underground systems would be picked up. Officers had made enquiries about the Mayor's Strategy and it was hoped the final version of the Transport Strategy would have a clearer indication about plans for City underground stations.

The Committee gave thanks to officers for their work on the strategy so far, and also to all the stakeholders who had engaged with and informed the process.

Arising from the discussion, the recommendation was then put to the vote amongst eligible Committee Members with 21 voting for and 0 voting against the application, with 1 abstention.

**RESOLVED** – That the Planning & Transportation Committee:

a) Approve the draft Transport Strategy for consultation; and

b) Authorise the Director of the Built Environment, in consultation with the Chairman and Deputy Chairman, to make further non-material changes and editorial changes prior to public consultation.

*At this point, Alderman Gregory Jones withdrew from the meeting.*

11. **REDEVELOPMENT OF 6-8 BISHOPSGATE AND 150 LEADENHALL STREET - ACQUISITION OF LAND FOR PLANNING PURPOSES**

The Committee considered a report of the Chief Planning Officer and Development Director seeking approval in principle for the acquisition of land for planning purposes to facilitate the redevelopment of the site at the corner of Bishopsgate and Leadenhall Street.

The Comptroller and City Solicitor drew the Committee's attention to the tabled addendum report which included letters of representations from stakeholders, clarified two points as a result of the representations and gave the Committee an overview of the proposal and recommendation. The Committee was advised that this would not be the final decision and the Town Clerk would have to consider the proposal at a later stage.

**RESOLVED** - That **SUBJECT TO** the Town Clerk being satisfied that there is an appropriate Indemnity in place and that it is necessary in order to facilitate the carrying out of the Development (including consideration of whether those entitled to rights of light and other easements and the benefit of restrictive covenants are prepared by agreement (on reasonable terms and within a reasonable period) to permit infringements or breach of the restrictions in time to achieve practical completion by 2022) that the Town Clerk be given delegated authority, in consultation with the Chairman and Deputy Chairman of the Planning and Transportation Committee, to approve the following:

(i) Acquisition of an interest in the Redevelopment Site by the City under S227 in order to engage powers under S203 for the planning purpose of facilitating the carrying out of the Development and subsequent disposal of that interest to the Developer (or an associated company) under section 233 of the TCPA; and

(ii) the terms on which the acquisition and disposal referred to above are to be made.

12. **BLACKFRIARS BRIDGE PARAPET REFURBISHMENT AND BRIDGE RE-PAINTING - GATEWAY 3/4 OPTIONS APPRAISAL**

The Committee considered a report of the Director of the Built Environment setting out the options for the refurbishment of Blackfriars Bridge.

**RESOLVED** – That the Planning & Transportation Committee agree that as the parapet has been shown to be of sufficient strength, the project proceeds with Option 3, a full refurbishment of Blackfriars Bridge with repair and replacement of the cast iron features as required; working around the current access restrictions.

13. **TRANSPORT FOR LONDON BUS RATIONALISATION PROPOSALS ACROSS LONDON**

The Committee considered a report of the Director of the Built Environment setting out the proposed response from the City of London Corporation to the consultation currently being carried out by TfL concerning proposals to make changes to their bus services across London.

The Director of the Built Environment introduced the report. The changes proposed by TfL were supported as they were in line with the Transport Strategy. The aim was for greater utilisation and fewer empty buses across the City. If approved, the changes would come into effect on a rolling basis throughout 2019.

A Member said that a reduction in the number of buses with minimal impact on uses was welcome, and suggested that the changes be co-ordinated according to the time of day. However, tourist buses were a bigger issue that needed to be addressed and the Corporation's response should include a suggestion that they be banned during peak hours.

A Member welcomed the review and change of direction. There were still problems with buses in the City, such as congestion by buses on Threadneedle Street. A wider look at why there were empty buses in the first place would be valuable, particularly with the implementation of the Transport Strategy.

A Member told the Committee that the frequency and efficiency of buses was good, and they were a useful mode of transport for older people and a whole range of other people. The proposals by TfL did take away some connectivity to the West End and some other areas, and as there was no real mention of how this would be mitigated, the Corporation's response should ask for this to be addressed.

A Member told the Committee that not all underground stations were step-free, and would not be until 2044, buses remained a useful mode of transport for passengers with mobility issues. There was a particularly high demand for buses heading south across London Bridge in the early evening as many workers commuted by bus from South London. Some of the recent decline in demand could be attributable to more people working at home due to the recent chaos on the train network. Any changes should also ensure that passengers did not have to walk long distances at night in order to change buses, as this was a safety concern. Bus services were flexible and could be changed quickly, so the proposals should be taken forward and amended later if they were not working.

A Member added that the bus network was crucial for early morning and late-night workers and the network needed the right links in place. The Hopper ticket had been a success and real progress had been made in improving the bus services. However, more services were needed at night.

A Member reiterated that the proposals lacked any consideration of the time of day. Buses ran at the same frequency at peak commuting hours as they did in the middle of the day which made no sense. The Chairman responded that he had asked TfL about this, and it was supposedly cheaper to keep the buses running during the middle of the day than to send them back to the depot. A Member added that depots and light industrial units close to the City would be valuable.

A Member stressed that the important thing was that a bus user should have a reasonable expectation of getting a bus in a reasonable amount of time, ideally waiting no more than 5 minutes at the bus stop. The proposals needed to consider the consumer point of view and perhaps technology would help to the end.

A Member reminded the Committee that buses that were empty at one stage of the route could have been full at other stages of the route. Arrangements following the changes needed to be made clearer as they would affect a significant number of people, and buses were a vital service.

A Member suggested looking at the effect of current travel subsidies on income and inequality and look at what could be done to address any issues. A Member added that discounts and more affordable pricing would lead to more usage of the buses and fewer cars, meeting multiple objectives.

The Director of the Built Environment responded to the points raised, noting the general support for the proposed changes. Comments made by Committee Members around frequency, time of day, social mobility and tourist buses would be taken into account, and the Corporation's response would be shared with the Chairman and Deputy Chairman before being sent out.

**RESOLVED** – That the Planning & Transportation Committee:

a) Note the report; and

b) Generally support TfL's proposed changes to bus services across London, taking account of comments from Members as set out.

14. **OUTSTANDING REFERENCES**

The Committee received a list of outstanding references.

Ludgate Circus

There were no further updates since the last meeting of the Committee. Another meeting with TfL was scheduled before the end of the year which the Deputy Chairman would attend.

Lane Rental

A report was due to be presented to the December meeting of the Committee.

Blackfriars Bridge Underpass

The Director of the Built Environment advised Members that officers had visited the site with Members from the Ward and Members of the Port Health & Environmental Services Committee to review the work done by TfL. Whilst the subway itself belonged to TfL the Corporation was responsible for cleaning the underpass. The lighting and tiling had been replaced and it had been concluded that the repairs were to an acceptable standard.

A Member responded that there were still intermittent problems, including with the lighting, and this had been raised with officers. There was some work still to do be done and it was asked that the item be kept on the outstanding references list.

Wind Measurement on Tall Buildings

A report was due to be presented to the December meeting of the Committee.

Fumes

A report was due to be presented to the November meeting of the Committee.

A Member said that the issue of policy and enforcement needed to be addressed. A lot of vents were aimed at pedestrians and this was knowingly permitted then it should be stopped, as it was unlikely that there was no alternative.

The Chairman advised that the report would also go to the Port health & Environmental Services Committee. A Member added that kitchen flumes were not sufficiently cleaned, creating bad smells and also creating a fire hazard.

15. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE COMMITTEE**

A Member asked why the pedestrian refuges on Gresham Street and Cheapside had been removed so early in preparation for the Lord Mayor's Show, which was not for another 11 days. The refuges had also previously taken too long to reinstate after the Show, and there should be a shorter

window either side. The Director of the Built Environment agreed to respond to the Member directly.

A Member reported an IT issue which had made the papers more difficult to read as there were no bookmarks on the electronic version, and asked that the Town Clerk ensure that the bookmarks were retained where an electronic agenda was split into two parts.

16. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**
There was no other business.

17. **EXCLUSION OF THE PUBLIC**
**RESOLVED** – That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following items on the grounds that they involve the likely disclosure of exempt information as defined in Part I of Schedule 12A of the Local Government Act.

| **Item No.** | **Exempt Paragraphs** |
|---|---|
| 18 – 20 | 3 |
| 21 – 22 | - |

18. **NON-PUBLIC MINUTES**
**RESOLVED** – that the non-public minutes of the meeting held on 8 October 2018 be agreed as a correct record.

19. **NON-PUBLIC MINUTES OF THE LOCAL PLANS SUB COMMITTEE**
The Committee received non-public minutes of the Local Plans Sub-Committee.

20. **THAMES COURT FOOTBRIDGE**
The Committee considered a report of the Director of the Built Environment.

21. **NON-PUBLIC QUESTIONS ON MATTERS RELATING TO THE WORK OF THE COMMITTEE**
There was one question.

22. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT AND WHICH THE COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE PUBLIC ARE EXCLUDED**
There was no other business.

**The meeting closed at 12.52 pm**

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Chairman

**Contact Officer: Joseph Anstee**
**tel. no.: 020 7332 1480**
**joseph.anstee@cityoflondon.gov.uk**

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**STREETS AND WALKWAYS SUB (PLANNING AND TRANSPORTATION) COMMITTEE**

**Tuesday, 23 October 2018**

**Minutes of the meeting of the Streets and Walkways Sub (Planning and Transportation) Committee held at the Guildhall EC2 at 10.30 am**

**Present**

**Members:**

Christopher Hayward (Chairman)
Oliver Sells QC (Deputy Chairman)
Randall Anderson
Deputy Keith Bottomley
Deputy Jamie Ingham Clark
Marianne Fredericks
Alderman Alison Gowman (Ex-Officio Member)
Paul Martinelli (Ex-Officio Member)
Deputy Alastair Moss
Graham Packham
Deputy Kevin Everett

**Officers:**

| | | |
|---|---|---|
| Leah Coburn | - | Department of the Built Environment |
| Joseph Anstee | - | Town Clerk's Department |
| Olumayowa Obisesan | - | Chamberlain's Department |
| Iain Simmons | - | Department of the Built Environment |
| Ian Hughes | - | Department of the Built Environment |
| Alan Rickwood | - | City of London Police |
| Melanie Charalambous | - | Department of the Built Environment |
| Steven Bage | - | City Surveyor's Department |
| Simon Glynn | - | Department of the Built Environment |
| Zahur Khan | - | Department of the Built Environment |
| Sam Lee | - | Department of the Built Environment |
| Mark Lowman | - | City Surveyor's Department |

1. **APOLOGIES FOR ABSENCE**
   Apologies for absence were received from Alderman Gregory Jones and Barbara Newman.

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

3. **MINUTES**
   **RESOLVED** – That the minutes of the meeting held on 4 September 2018 be agreed as a correct record.

4. **OUTSTANDING REFERENCES**
   The Sub-Committee received a list of outstanding references.

   Swan Pier

DRAFT

The Director of the Built Environment updated the Sub-Committee. There had been a slight delay to the restoration of the stonework, and further funding would be requested from Resource Allocation Sub-Committee under urgency procedures. The Environment Agency had been updated on the work undertaken. The scheme would comprise of work on the Thames Wall and the old pierhead would be replaced with a new one.

22 Bishopsgate

The Chairman advised the Sub-Committee that the S278 agreement was nearly complete following discussions with the applicant. The Director of the Built Environment added that officers were working hard to resolve the last stages of the agreement.

Dockless Bikes

The Chairman reminded Sub-Committee Members of the Planning & Transportation Committee's decision to continue with current policy, also fitting it into the Transport Strategy. The item would stay on the outstanding references list as it would be coming back to the Sub-Committee.

A Member added that the relevant technology was improving greatly and having designated areas where the dockless cycles could be parked was still a possibility.

Fann Street

The Sub-Committee was advised that the experimental traffic order had been made. Members advised that this could be publicised more, as some drivers were not aware that they could make U-turns. The Director of the Built Environment responded that the order was only relevant to a small minority, and that officers would monitor the situation over time.

Committee Structure

The Sub-Committee welcomed Deputy Kevin Everett to the Sub-Committee, having been nominated to the Sub-Committee as a representative of the Port Health and Environmental Services Committee.

Beech Street

The Director of the Built Environment updated the Sub-Committee. The Gateway 3 report had been approved and baseline information was being collected. Whilst there were no outcomes yet officers were meeting regularly, and there had been meetings with colleagues at Islington who had seemed amenable to co-operating and working closely together on the project.

A Member asked that the key action dates be updated and filled in on the references list as they were helpful for Members.

**RESOLVED** – That the list of outstanding references be noted and updated accordingly.

5. **DRAFT TRANSPORT STRATEGY**

The Sub-Committee considered a report of the Director of the Built Environment, seeking comment on the draft Transport Strategy, to be fed back to the Planning & Transportation Committee when the final draft is presented on 30 October 2018.

The Chairman advised Sub-Committee Members that the draft strategy had attracted a lot of media interest and praise for radical and innovative elements of the strategy. A new strategy was important given the expected growth in the near future and it was hoped the draft could be recommended unanimously to the Grand Committee.

A Member told the Sub-Committee that they strongly supported the strategy. Radical proposals were what was needed, and whilst some might not be immediately successful this should not be a deterrent. Temporary interventions and timed closures would support the project, particularly in working towards car-free days and pedestrian-priority areas. As it would be useful to have something to make publicity around, Members were advised that planning was underway for a car-free week round St. Mary Axe in September 2019.

The Deputy Chairman drew the Sub-Committee's attention to the survey responses, specifically that greenery was the biggest non-transport topic amongst survey respondents. Technology was moving fast, and this could prove useful in taking environmental measures further. Members supported holding a combined meeting with the Open Spaces & City Gardens Committee, along with any other interested Members, to ensure these issues were taken forward, as it would not happen without joined-up thinking at Member and officer level. A cross-cutting reference group could also be set up to involve other stakeholders.

A Member added that the proposals were based on sound methodology and changes to the proposals should be based on evidence. The proposals on street obstructions should utilise the Corporation's powers as the highway authority and it was a statutory duty to follow up on them.

A Member advised the Sub-Committee that the Active City Network had been briefed on the draft strategy and were very supportive. There was also a great base of support amongst businesses. It was important to remember that 25 years was a long time and things would change within the period. The Corporation could always review and challenge itself further.

A Member suggested that battery weight should be excluded from the measurement of vehicles to encourage the use of electric vehicles. It was also important to remember that vehicle numbers did not count for everything, as two small vehicles were preferable to one larger lorry.

A Member suggested adding a map or list to the partnerships and leadership section that set out stakeholder organisations in more detail, and asked what plans were in place to continue engagement during and after the consultation. The Director of the Built Environment responded that extra information could be

brought to the Grand Committee meeting. Officers held a database of those who had given their details in their response to prior engagement and would continue to encourage people to sign up. There would be further engagement via the website. A Member suggested producing a communications template for Members to send to businesses. Some wards also had a business forum.

A Member advised that it would be helpful to make links to corporate risks, particularly road safety and air quality, and suggested adding mention of the Bank on Safety experiment as an example of using temporary interventions. The Director of the Built Environment responded that the corporate risks had not been picked up explicitly, but links to the Corporate Plan would be made. Amendments could also be made to bring out the health impact of air quality and to make reference to the successful Bank on Safety experiment.

A Member praised the strategy and raised a number of points for discussion. The strategy did not include anything on changing the aggressive cycling culture in the City. The timeframes used should be consistent throughout the strategy. The document also needed to explain the Healthy Streets Indicators used, as these were not currently set out, and should be clear that improvements to pavements were not for purposes of businesses. Blackfriars Junction needed more attention as a key walking route as it had been made worse by the current state of the underpass. A higher speed limit for the London Access street network could be considered as this might discourage the use of the other two categories of networks. Clarification was sought on pedestrian refuges, as they were good for safety and traffic, and were omitted from the section on pedestrian crossings.

The Director of the Built Environment responded to the points raised. There was a desire to change the culture and encourage safe behaviours for cyclists as well as motorists, but this could be made more explicit. It was hoped the 15mph speed limit would demonstrate that the City was different and promoted slower, calmer streets. Blackfriars Junction had not been selected as a key walking route as the routes had been selected by the number collisions in the area, but this would be kept under review. In the London Access network, some roads were managed by TfL who would not agree to different speed limits. The section on road user charging could be made clearer with regards to the position on taxis. Pedestrian refuges could be looked at, as they still fit the aim of priority for pedestrians.

A Member stated that road safety and cycle lanes could be complicated, as segregated cycle lanes were sometimes counter-intuitive to the flow of traffic. More educational signage may be useful to this end. The Director of the Built Environment responded that more information could be added on segregated cycle lanes and shared space. The aim was for legible streets that were obvious and easy to navigate.

A Member advised the Sub-Committee that they had agreed continuing involvement of the Transport Strategy Board, which would provide continued engagement. This was important politically as it represented component groups such as small businesses. A Utility Strategy would probably be needed going

forward to tie in with the transport strategy. It was suggested that the strategy also looked at airspace, as the use of drones, for example, was likely to change the use of this space in future years.

The Director of the Built Environment replied that the Transport Strategy Board had been really valuable and officers would continue to engage. The Chairman added that it was hoped there was a place for it on an ongoing basis, and thanked Deputy Alastair Moss for chairing the Board meetings.

A Member pointed out that both miles and kilometres per hour were used in the strategy and suggested that one measure be used consistently. Members asked that a track-changed version of the draft Transport Strategy, which incorporated Sub-Committee Members' comments, be tabled at the Planning & Transportation Committee meeting.

A Member suggested that the strategy do more to consider automated vehicles, which may become more commonplace in the coming years. It was also hoped the final strategy would do more to explain the real drivers behind the strategy. Policy references would be effective to this end as it would demonstrate joined-up thinking. The proposals on street obstructions needed to be clear on who had control and the ability to change things, as there was little power within the licensing system. References to the relevant legislation would be useful for this. It was also suggested that 'public highway' be used instead of 'pavement' as this was more suggestive of the need to be unhindered and unobstructed.

A Member asked how the key targets set out on page 93 had been benchmarked, and noted that there was no key target relating to air quality. The Director of the Built Environment responded that the targets had been devised from various places including the Mayor of London's Transport Strategy and the Local Plans Sub-Committee. There were targets relating to air quality, such as the targets around zero-emission vehicles, and these could be added to the section.

The Sub-Committee discussed the section on key targets. Members suggested that all metrics should have 2030 targets, and stressed the importance of the targets as they highlighted current poor performance in some areas. As 2030 was a comfortable target, the 3-year delivery plan would provide the short-term targets to motivate action. The delivery plan would be submitted to Planning & Transportation and to TfL and would be updated annually.

The Chairman thanked Members for their discussion and officers for their work on a challenging and innovative strategy recommended that the draft Transport Strategy be put forward, with Members' comments, to the Grand Committee.

The Director of the Built Environment confirmed that the consultation would include a bespoke website, briefing sessions and drop-in sessions for the public. Previously most feedback had been received via the online survey and this would be continued.

**RESOLVED** - That the Sub-Committee unanimously recommended that the draft Transport Strategy be approved for consultation, and that officers take the comments of the Sub-Committee into account and produce a track-changed version of the draft Transport Strategy to table ahead of consideration of the matter by the Planning & Transportation Committee.

6. **CENTRAL LONDON CYCLE GRID - QUIETWAYS**

The Sub-Committee considered a report of the Director of the Built Environment advising Members of the completion of the project to deliver two cycle Quietway routes through the City, to support the Mayor of London's Cycle Vision, and seeking agreement to close the Project. The Director of the Built Environment advised that the project had been ongoing for two years and was ready to be closed, having been completed within the agreed budget at a saving of around £135,000. Officers had been unable to gather post-implementation data due to ongoing construction along or near the routes, but future data would be looked at in Phase 2. A report on Phase 2 would be brought to a future meeting.

**RESOLVED** – That the Streets & Walkways Sub-Committee approve the content of the Outcome Report and agree to close the Project.

7. **LEADENHALL STREET, ST MARY AXE - PEDESTRIAN CROSSING**

The Sub-Committee considered a report of the Director of the Built Environment seeking Gateway 5 approval for Phase 2 of the Leadenhall Street pedestrian crossing project.

The Director of the Built Environment advised Members of several amendments to the financial costs of the project. The pre-evaluation budget as set out on the dashboard should be amended from £132,579, to £271,183 of approved of £356,712. The cost of construction as set out on the dashboard should be amended from £520,284 to £458,518. The total estimated cost for Phases 1 and 2 as set out on the dashboard should be amended from £1,125,572 to £976,448.

The Sub-Committee was also advised of an amendment to the second approval requested in the recommendations to the report. The Sub-Committee was now asked to approve the allocation of a sum of £371,160 from the LCFEIW payment of the Section 106 agreement for 52-54 Lime Street, to the Phase 2 works, rather than the £432,926 originally set out.

The Director of the Built Environment informed the Sub-Committee that the pedestrian crossing project had been approved some time ago. A temporary crossing had been put in place at first, and officers now brought forward a permanent solution. Members were advised of the general arrangement plan set out in the appendix to the report, and that the whole junction would be signalised.

A Member asked the Director of the Built Environment to confirm the costs of the projects, as the figures set out initially in the report had been approved by the Projects Sub-Committee, and asked why the figures had now changed. The

Director of the Built Environment responded that a saving of around £60,000 had been made on the project due to Transport for London improvements in technology, and assured Members that the amended figures as reported were correct.

**RESOLVED** – That the Streets & Walkways Sub-Committee:

a) Approve the use of the underspend and unallocated monies from the Phase 1 & 2 pre-evaluation funds for the purposes of implementing the crossing;

b) Approve the allocation of a sum of £371,160 from the LCFEIW payment of the Section 106 agreement for 52-54 Lime Street, to the Phase 2 works;

c) Note that any monies remaining of the LCFEIW payment be allocated towards the provision of local facilities and the environment in accordance with the agreement;

d) Approve the Phase 2 implementation budget setup, as set out in Table 3 of Appendix 2; and

e) Approve Phase 2 design proposal and grant authority to start work.

8. **RESPONSE TO MEMBER'S CONCERNS: REPLACEMENT EXISTING STREET FURNITURE TO SUPPORT CITY OF LONDON WIRELESS CONCESSION**

The Sub-Committee considered a report of the Director of the Built Environment seeking to address Members' requests for further information and recommending that a trial replacing ten of the columns be undertaken.

The City Surveyor advised Members that this was critical to supporting the City's wireless system and implementing 5G technology soon after it was available. Whilst the footprints of the columns were double the size of existing columns, Highways officers did not think this would have a significant impact. The locations for an initial ten columns had been approved by relevant officers and had undergone an Equality Analysis. The Public Realm team would be updated, and a written protocol had been approved.

A Member responded that they supported the recommendations, but asked that the columns be placed as close to the kerb or as close to the building as possible to give the pavement as much width as possible. The Director of the Built Environment said that the placement would be rationalised where they could, but were often dependent on basements and needed to be out of the way of parked vehicles. A report could be brought back after the installation of the initial ten columns, before further delegation was sought. A Member requested that any improvements possible to the placement of columns be made.

**RESOLVED** – That the Streets & Walkways Sub-Committee:

a) Grant approval to replace 3 metre columns with taller 8 metre columns, in ten locations (shown in Appendix 2); and

b) That, subject to Members being content with a), delegated authority to be granted to the Town Clerk and Chairman and Deputy Chairman to approve the further replacement of 3 metre columns with 8 metre columns in 150 locations to facilitate the housing of 4G and 5G small cell equipment to improve mobile coverage across the Square Mile.

9. **CITY PUBLIC REALM PROJECTS - COMPOSITE OUTCOME REPORT**

The Sub-Committee considered a report of the Director of the Built Environment consolidating the outcome reports for ten City Public Realm projects and seeking approval, subject to the completion of the outstanding works/actions, to close the projects.

The Director of the Built Environment gave Members an overview, using slides, of the ten projects undertaken, demonstrating any new features and what the areas had looked like before and after the project. The Director of the Built Environment confirmed that all projects had been completed within budget, and that officers could ask to renegotiate S106 agreements where there had been an underspend.

A Member asked why some of the projects had taken so long, as some even outdated the Gateway process, and suggested that it would be good to have a regular portfolio report on City Public Realm projects. The Director of the Built Environment responded that a ten-year plan was devised for CPR and transport projects. This was previously reported annually but could be made firmer. A number of projects had seen significant delays due to changes of staff and priorities changing due to other projects, but officers would strive to ensure projects were closed faster in future.

Whilst a Member commended the significant increase in the number of trees over recent years, another Member suggested that a higher number of trees should be targeted. There were still areas where there were very few trees, such as around Fleet Street, and increasing their number would improve the area. Whilst they could not be planted everywhere due to the need for enough space for their roots, a Member suggested looking at alternatives where trees could not be planted.

**RESOLVED** – That, subject to the completion of the of the outstanding works/actions set out in Appendix 1, the projects are closed, and lessons noted.

10. **REVIEW OF PROJECTS WITHIN THE BUILT ENVIRONMENT DIRECTORATE**

The item was withdrawn.

11. **SHOE LANE QUARTER PUBLIC REALM ENHANCEMENTS - PHASE 2**

The Sub-Committee received a report of the Director of the Built Environment advising Members of progress on Phase 2 of the Shoe Lane Quarter Public

Realm Enhancements. The Director of the Built Environment advised Members that road work with TfL had been completed, and that there had been a lot of successful co-operation with the main developer. The project was on track to be completed by the expected point of occupation in May 2019.

**RESOLVED** – That the report be received, and its contents noted.

12. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**
A Member asked about the Pay & Display outside Fenchurch Street on Crutched Friars. As there were development hoardings, a two-way cycle lane and cars parked on both sides of the road at night, too much space was being taken up, causing significant safety concerns, particularly ahead of Christmas. The Director of the Built Environment responded that this would be taken away and looked into.

13. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**
There was no other business.

14. **EXCLUSION OF THE PUBLIC**
**RESOLVED –** That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following items of business on the grounds that they involve the likely disclosure of exempt information as defined in Part 1 of Schedule 12A of the Local Government Act.

| **Item No.** | **Exempt Paragraphs** |
|---|---|
| 15 | 3 |
| 16 - 17 | - |

15. **NON-PUBLIC MINUTES**
**RESOLVED** – That the non-public minutes of the meeting held on 4 September 2018 be agreed as a correct record.

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

17. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT AND WHICH THE SUB COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE PUBLIC ARE EXCLUDED**
There was one item of other business.

**The meeting closed at 12.30 pm**

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Chairman

**Contact Officer: Joseph Anstee**
**tel. no.: 020 7332 1480**
**Joseph.Anstee@cityoflondon.gov.uk**

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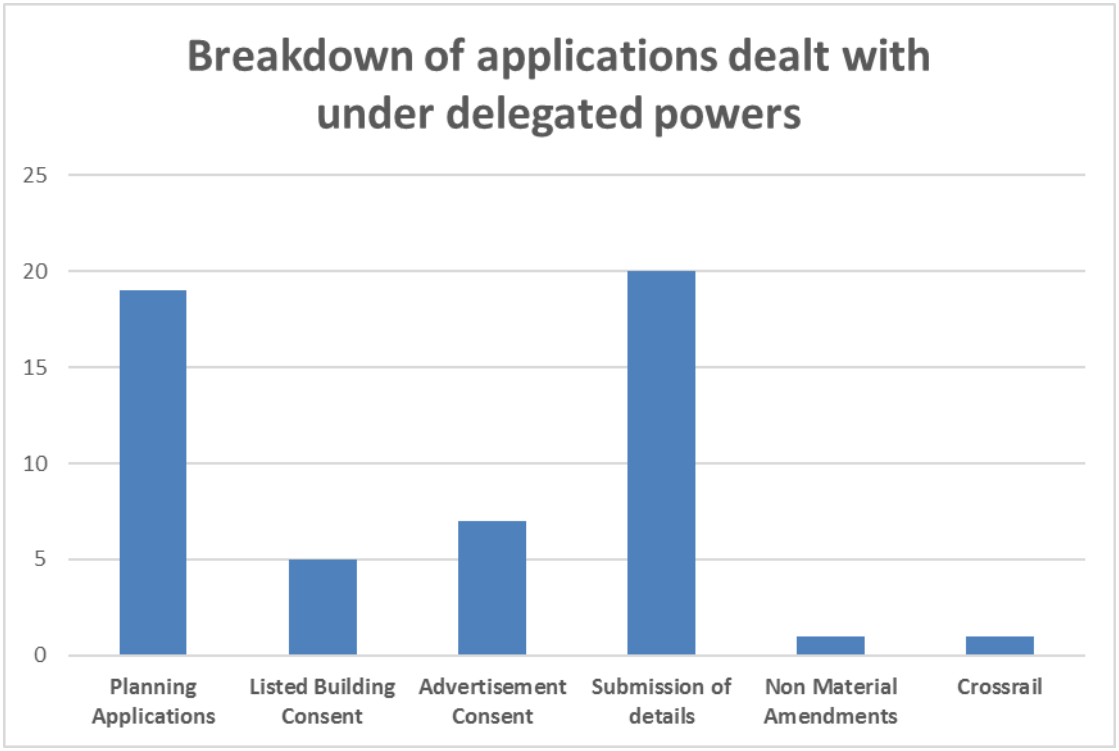
| Committee(s) | Dated: |
|---|---|
| Planning and Transportation | 20th November 2018 |
| **Subject:**<br>Delegated decisions of the Chief Planning Officer and Development Director | **Public** |
| **Report of:**<br>Chief Planning Officer and Development Director | **For Information** |

**Summary**

Pursuant to the instructions of your Committee, I attach for your information a list detailing development and advertisement applications determined by the Chief Planning Officer and Development Director or those so authorised under their delegated powers since my report to the last meeting.

In the time since the last report to Planning & Transportation Committee Fifty-three (53) matters have been dealt with under delegated powers.

Twenty (20) relate to conditions of previously approved schemes, five (5) relate to works to listed buildings. Seven (7) express consent to display advertisements were decided of which one (1) was refused, one (1) Non-Material amendment application, and also one (1) Crossrail application. Nineteen (19) applications for development have been approved including Five (5) change of use and 2020.50sq.m of created floorspace.



Any questions of detail arising from these reports can be sent to plans@cityoflondon.gov.uk.

**FULL** - Full Planning Permission
**ADVT** - Advertisement Consent
**MDC** - Submission of Details (Planning)
**XRAIL** – CrossRail Construction arrangements
**LBC** - Listed Building Consent
**NMA** - Non-Material Amendments
**PODC** - Planning Obligations

## Details of Decisions

| Registered Plan Number & Ward | Address | Proposal | Decision & Date of Decision |
|---|---|---|---|
| 18/00797/FULL<br><br>Aldgate | 113 Leadenhall Street London EC3A 4AX | New internal platform lift, internal steps and associated works including the removal of the external entrance steps and provision of a new entrance door. | Approved<br><br>06.11.2018 |
| 18/00866/ADVT<br><br>Aldersgate | 6 Little Britain London EC1A 7BX | Installation and display of; i) two externally illuminated fascia sign measuring 0.5m high by 3.36m wide located at a height of 3.1m above ground floor level; ii) one non-illuminated fascia sign measuring 0.3m high by 1.5m wide located at a height of 3.2m above ground floor level; iii) two externally illuminated projecting signs measuring 0.6m high by 0.6m wide located 2.8m above ground floor level. | Approved<br><br>23.10.2018 |
| 18/00818/FULL<br><br>Aldersgate | Lamb And Trotter 6 Little Britain London EC1A 7BX | External alterations including: (i) retention of a new entrance door to the corner of the building; (ii) retention of replacement double entrance doors; (iii) installation of five new wall lanterns to replace the existing lighting. | Approved<br><br>06.11.2018 |
| 18/00867/MDC<br><br>Broad Street | 60 London Wall London EC2M 5TQ | Details of landscaping scheme for upper level terraces pursuant to Condition 20 of planning permission 16/00776/FULMAJ dated 27.04.2017. | Approved<br><br>23.10.2018 |

| | | | |
|---|---|---|---|
| 18/00991/MDC<br><br>Broad Street | 60 London Wall<br>London<br>EC2M 5TQ | Details of construction, planting, irrigation and maintenance regime for the proposed green terraces and green roofs pursuant to condition 23 of planning permission dated 27 April 2017 (16/00776/FULMAJ). | Approved<br><br>23.10.2018 |
| 18/00772/FULL<br><br>Bridge And Bridge Without | 4 Lovat Lane<br>London<br>EC3R 8DT | External alterations including: (i) replacement of existing windows with double hung sash windows; (ii) replacement of existing door surround, steps and entrance doors; (iii) reinstatement of fascia detail above the ground floor windows; and (iv) reinstatement of a hanging sign at first floor level incorporating a timepiece. | Approved<br><br>18.10.2018 |
| 18/00773/LBC<br><br>Bridge And Bridge Without | 4 Lovat Lane<br>London<br>EC3R 8DT | Internal and external alterations including: (i) replacement of existing windows with double hung sash windows; (ii) replacement of existing door surround, steps and entrance doors; (iii) reinstatement of fascia detail above the ground floor windows; (iv) reinstatement of a hanging sign at first floor level incorporating a timepiece; (v) installation of a replacement staircase and lift; (vi) removal and realignment of internal partitions; and (vii) renewal of all internal services. | Approved<br><br>18.10.2018 |
| 18/00834/MDC<br><br>Bishopsgate | 100 Bishopsgate<br>London<br>EC2N 4AG | Details of the junctions between the landscaped space and the walls of St Ethelburgas Centre for Reconciliation and Peace; revised details of the treatment or screen to the northern wall of 33-35 St Mary Axe and details of the facing or treatment to all exposed flank or party walls pursuant to conditions 11(r), (q) and 22 of planning permission dated 30th March 2012 (12/00129/FULL). | Approved<br><br>23.10.2018 |

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| 18/00848/FULL<br><br>Bishopsgate | 6-7 New Street<br>London<br>EC2M 4TP | (i) Conversion of two dwelling houses into eight studio flats and one two bedroom flat (ii) external alterations to windows on rear elevation of number 7 and mansard roof of number 6. (441 sq.m) | Approved<br><br>23.10.2018 |
| 18/00849/LBC<br><br>Bishopsgate | 6-7 New Street<br>London<br>EC2M 4TP | (i) Internal alterations comprising the removal of internal partitions, building new partitions and removal of staircase in number 7. (ii) External alterations to windows on rear elevation of number 7 and mansard roof of number 6 in connection with a change of use. | Approved<br><br>23.10.2018 |
| 18/00850/FULL<br><br>Bishopsgate | Tower House 11<br>Artillery Lane<br>London<br>E1 7LP | Change of use from office (Class B1) use to a flexible use for either a non-surgical aesthetic academy and clinic (Class D1) or office (Class B1) use. (122sq.m) | Approved<br><br>23.10.2018 |
| 18/00892/MDC<br><br>Bishopsgate | 3 Broadgate<br>London<br>EC2M 2QS | Details of windows pursuant to condition 4 (b) of planning permission 17/00578/FULL dated 3 August 2017. | Approved<br><br>23.10.2018 |
| 18/01000/FULL<br><br>Bishopsgate | Footbridge Over Wormwood Street<br>City Walkway - Over Wormwood Street<br>London<br>EC2 | Application under section 73 of the Town and Country Planning Act 1990 to vary condition 2 of planning permission 17/01091/FULLR3 to extend the temporary time period for the retention of the sculpture 'Bridging Home' by Do Ho Suh to 31 March 2020. | Approved<br><br>30.10.2018 |
| 18/00798/ADVT<br><br>Bishopsgate | 158 - 164<br>Bishopsgate<br>London<br>EC2M 4LX | Installation and display of one internally illuminated advertisement measuring 2.37m high by 1.34m wide by 0.35m deep on bus shelter outside 158-164 Bishopsgate. | Refused<br><br>01.11.2018 |
| 18/00678/FULL<br><br>Bread Street | 4 Paternoster Square London<br>EC4M 7DX | Alterations to the shopfront to include removal of the existing window and replace with automatic sliding doors and the installation of four retractable awnings. | Approved<br><br>30.10.2018 |

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| 18/00877/PODC<br><br>Bassishaw | 55 Gresham Street London EC2V 7HQ | Submission of Interim Travel Plan and Delivery and Servicing plan pursuant to paragraph 8.1 and 9.1 of the section 106 agreement dated 21 December 2015 associated planning application reference 15/00706/FULMAJ. | Approved<br><br>23.10.2018 |
| 18/00876/PODC<br><br>Bassishaw | Garrard House 31 Gresham Street London EC2V 7QA | Submission of Local Procurement Strategy and Local, Training Skills and Job Brokerage Strategy pursuant to schedule 3 paragraph 2.1 and 3.2 of section 106 agreement dated 01 February 2018 associated planning application reference 17/00585/FULMAJ. | Approved<br><br>30.10.2018 |
| 18/00854/LBC<br><br>Cripplegate | 30 Basterfield House Golden Lane Estate London EC1Y 0TP | Reinstatement of original partition arrangement between living room and kitchen. | Approved<br><br>23.10.2018 |
| 18/00907/MDC<br><br>Cripplegate | Former Richard Cloudesley School Golden Lane Estate London EC1Y 0TZ | Air Quality Assessment pursuant to condition 4 of planning permission dated 19th July 2018 (planning reference 17/00770/FULL). | Approved<br><br>25.10.2018 |
| 18/00947/LBC<br><br>Cripplegate | 322 Ben Jonson House Barbican London EC2Y 8NQ | Internal flat alterations including replacement of kitchen and bathroom and other minor associated works. | Approved<br><br>25.10.2018 |
| 18/00853/ADVT<br><br>Cornhill | 1 Threadneedle Street London EC2R 8AY | Installation and display of i) three internally illuminated fascia signs measuring 0.72m in height by 3.86m in width situated at a height of 3.378m above ground level; ii) one internally illuminated fascia sign measuring 0.72m in height by 3.86m in width situated at a height of 3.422m above ground level; iii) one internally illuminated projecting sign measuring 0.6m in height by 0.7m in width situated at a height of 3.438m above ground level; | Approved<br><br>18.10.2018 |

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| | | and iv) two internally illuminated ATM signs measuring 1.53m in height by 0.825m in width situated at a height of 0.438m above ground level. | |
| 18/00847/XRAIL<br><br>Coleman Street | 87 Moorgate & 8 Moorfields<br>London<br>EC2 | Application under schedule 9 of the Crossrail Act 2008 for details of temporary flashing on the party walls of 87 Moorgate and 8 Moorfields, adjacent to the western access shaft. | Approved<br><br>30.10.2018 |
| 18/00283/FULL<br><br>Coleman Street | City Point Plaza<br>Ropemaker Street<br>London<br>EC2Y 9HU | Use of the public realm for an open air market one day per week. | Approved<br><br>01.11.2018 |
| 18/00933/MDC<br><br>Coleman Street | 55 Moorgate<br>London<br>EC2R 6PA | Details of particulars and samples of the materials to be used on all external faces of the building including external ground and upper level surfaces pursuant to condition 18 (a) part of planning permission 16/00405/FULMAJ dated 11.10.17. | Approved<br><br>01.11.2018 |
| 18/01055/NMA<br><br>Coleman Street | 51 Moorgate<br>London<br>EC2R 6BH | Non material amendment under section 96A of the Town and Country Planning Act 1990 to planning permission 16/00463/FULL dated 26 July 2016 for replacement of the drum door with a sliding door on the Moorgate elevation and removal of the associated pass door. | Approved<br><br>01.11.2018 |
| 18/00917/MDC<br><br>Coleman Street | 120 Moorgate<br>London<br>EC2M 6UR | Submission of measures necessary to resist structural damage arising from an attack with a road vehicle or road borne explosive device pursuant to condition 5 of planning permission 18/00145/FULL dated 31.05.18. | Approved<br><br>06.11.2018 |
| 18/00428/MDC<br><br>Cheap | Abacus House 33 Gutter Lane<br>London<br>EC2V 8AS | Submission of details of existing and proposed building lines pursuant to condition 14 of planning permission dated 18th February 2016 (App No 15/01210/FULL). | Approved<br><br>18.10.2018 |

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| 18/00959/MDC<br><br>Cheap | Cheapside House<br>138 Cheapside<br>London<br>EC2V 6BJ | Details of ground floor entrance and materials and details of front façade column cladding pursuant to Condition 2 (a) and (b) of planning permission 18/00521/FULL dated 17.07.2018 | Approved<br><br>06.11.2018 |
| 18/00888/ADVT<br><br>Cordwainer | 67 - 69 Watling Street London<br>EC4M 9DD | Installation and display of i) one externally illuminated fascia sign measuring 0.4m in height by 3.4m in width situated at a height of 4m above ground level; ii) one externally illuminated fascia sign measuring 0.5m in height by 1.4m in width situated at a height of 3.3m above ground level; iii) one externally illuminated projecting sign measuring 0.6m in height by 0.7m in width situated at a height of 3.6m above ground level; and iv) two internally illuminated menu signs each measuring 0.7m in height by 0.4m in width situated at a height of 1m above ground level<br>. | Approved<br><br>18.10.2018 |
| 18/00568/ADVT<br><br>Cordwainer | 12 Bow Lane<br>London<br>EC4M 9AL | Installation and display of one externally illuminated projecting sign measuring 0.70m high by 0.64m wide situated at a height above ground of 3.79m. | Approved<br><br>25.10.2018 |
| 18/00672/FULL<br><br>Cordwainer | The Pavilion End Public House 23 Watling Street<br>London<br>EC4M 9BR | Installation of planters and canopy system in rear courtyard. Installation of new HVAC and extract plant (to replace existing equipment). | Approved<br><br>25.10.2018 |
| 18/00673/LBC<br><br>Cordwainer | The Pavilion End Public House 23 Watling Street<br>London<br>EC4M 9BR | Internal and minor external alterations to listed public house. Installation of planters and canopy system in rear courtyard. Installation of new HVAC and extract plant (to replace existing equipment). New paint scheme for front and rear of listed building. Installation of new signage. | Approved<br><br>25.10.2018 |

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| 18/00807/FULL<br><br>Cordwainer | 67 - 69 Watling Street London EC4M 9DD | Alterations to the shopfront comprising the formation of new openings, installation of glazed balustrades, alterations to the stall risers, new exterior lighting, new tiled stepped entrance and associated alterations. | Approved<br><br>01.11.2018 |
| 18/01067/MDC<br><br>Dowgate | Dyers Hall 10 Dowgate Hill London EC4R 2ST | Details of a programme of archaeological work pursuant to condition 2 of planning permission dated 14/8/2018 (application number 18/00101/FULL) | Approved<br><br>25.10.2018 |
| 18/00750/FULL<br><br>Farringdon Within | 9 Ludgate Broadway London EC4V 6DU | Application under S73A of the Town and Country Planning Act 1990 for the retention of ground floor and basement as Hot Food Takeaway (Class A5) use in lieu of Restaurant (Class A3) use and retention of extract flue to the rear of the unit at ground floor level 78.5sq.m) | Approved<br><br>23.10.2018 |
| 18/00949/MDC<br><br>Farringdon Within | Land Bounded By Charterhouse Street, Lindsey Street, Long Lane And Hayne Street London EC1 | Details of external materials pursuant to condition 6a of planning permission 13/00605/FULEIA (Appeal Reference APP/K5030/A/15/3069991) dated 20 January 2016. | Approved<br><br>01.11.2018 |
| 18/01068/PODC<br><br>Farringdon Within | 16 Old Bailey London EC4M 7EG | Submission of a Highway Schedule of Condition Survey pursuant to Schedule 3 Paragraph 8.1 of the Section 106 Agreement dated 05 October 2018 in relation to Planning Permission 18/00137/FULL. | Approved<br><br>06.11.2018 |
| 18/00872/MDC<br><br>Farringdon Without | 9 - 13 Cursitor Street London EC4A 1LL | Details of external journey, particulars and samples of proposed ventilation grilles, provision for disabled people to gain access to the offices and retail unit pursuant to conditions 2(a), (b) and (c) of planning permission dated 12 May 2017 (ref: 17/00233/FULL). | Approved<br><br>23.10.2018 |

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| 17/01273/FULL<br><br>Farringdon Without | 3 - 5 Norwich Street London EC4A 1EJ | Alterations to the existing office building including: (i) extension at 6th floor level for Class B1 Use; (ii) erection of additional seventh and eighth floor levels for Class B1 use; (iii) erection of a rooftop plant enclosure; (iv) creation of new terraces at seventh floor level; (v) reconstruction of the facade to Norwich Street; (vi) provision of new entrances and fire escapes to Norwich Street; (vii) provision of cycle parking and associated facilities at lower ground floor level; and (viii) associated internal and external alterations (total increase in floorspace 753sq.m GIA). | Approved<br><br>26.10.2018 |
| 18/00935/FULL<br><br>Farringdon Without | 90 Fetter Lane London EC4A 1EN | Use of part ground and part lower ground floors for Class A1/A3/A4/B1/ D2 (gym) in lieu of approved uses for Class A1/A3/A4/B1 (626sq.m). | Approved<br><br>01.11.2018 |
| 18/00952/FULL<br><br>Farringdon Without | 40 Holborn Viaduct London EC1N 2PB | Application under Section 73 of the Town and Country Planning Act 1990 (as amended) to amend condition 12 of planning permission 1082CC dated 13th July 2005 to reduce the number of motorcycle parking spaces from 28 to 13 and amend condition 13 of planning permission 1082CC dated 13th July 2005 to increase the number of cycle spaces provided from 87 to 168. | Approved<br><br>06.11.2018 |
| 18/01021/MDC<br><br>Lime Street | 6-8 Bishopsgate And 150 Leadenhall Street London EC3V 4QT | Details of a drainage strategy pursuant to condition 4 of planning permission (application no.17/00447/FULEIA) dated 13th September 2018. | Approved<br><br>25.10.2018 |
| 18/01009/MDC<br><br>Lime Street | 1 Great St Helen's London EC3A 6AP | Details of method of cleaning of new facade and integration of cleaning equipment pursuant to Condition 3(a) of planning permission 17/00582/FULL dated 17.08.2017. | Approved<br><br>30.10.2018 |

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|---|---|---|---|
| 18/00361/FULL<br><br>Portsoken | Aldgate House<br>33 Aldgate High Street<br>London<br>EC3N 1AH | Application under S73 of the Town and Country Planning Act 1990 (as amended) to allow variation of condition 2 (approved plans) of planning permission dated 27th February 2018 (17/01302/FULL) to allow the installation of a new ventilation system and a full height glazing system. | Approved<br><br>23.10.2018 |
| 18/00492/FULL<br><br>Portsoken | Sir John Cass C Of E School St James's Passage<br>London<br>EC3A 5DE | Installation of a timber and steel play structure in the playground. | Approved<br><br>25.10.2018 |
| 18/00820/FULL<br><br>Tower | Centurion House<br>37 Jewry Street<br>London<br>EC3N 2ER | Installation of an external gate at ground floor level. | Approved<br><br>23.10.2018 |
| 18/00889/MDC<br><br>Tower | Emperor House<br>35 Vine Street<br>London<br>EC3N 2PX | Submission of hostile vehicle mitigation measures pursuant to Condition 18 of planning permission 18/00193/FULMAJ dated 26.07.2018. | Approved<br><br>25.10.2018 |
| 18/00975/MDC<br><br>Tower | Emperor House<br>35 Vine Street<br>London<br>EC3N 2PX | Details of Suds components, measures to be taken to prevent flooding and evidence that Thames Water have been consulted pursuant to condition 14 of planning permission dated 26th July 2018 (18/00193/FULMAJ). | Approved<br><br>01.11.2018 |
| 18/00793/PODC<br><br>Tower | Emperor House<br>35 Vine Street<br>London<br>EC3N 2PX | Submission of the Utility Connection Requirements of the Development and a Draft Programme pursuant to Schedule 3 Paragraph 19.1.1 and 19.1.2 of Section 106 Agreement dated 09 November 2017 (as amended by the Deed of Variation dated 26 July 2018 - Application Reference 18/00193/FULL). | Approved<br><br>06.11.2018 |

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|---|---|---|---|
| 18/00884/ADVT<br><br>Walbrook | 37 Poultry London EC2R 8AJ | Installation and display of i) three internally illuminated fascia signs measuring 0.9m in height by 1.73m in width situated at a height of 3.72m above ground level; and ii) one internally illuminated projecting sign measuring 0.9m in height by 0.65m in width situated at a height of 3.72m above ground level. | Approved<br><br>18.10.2018 |
| 18/00885/FULL<br><br>Walbrook | 37 Poultry London EC2R 8AJ | Alterations to existing shopfront, consisting of the relocation of the existing entrance doors and the installation of a new glazing panel. | Approved<br><br>18.10.2018 |
| 18/00737/FULL<br><br>Walbrook | 27 - 32 Old Jewry London<br>EC2R 8DQ | Installation of new entrance, awning and wall mounted light fittings. | Approved<br><br>06.11.2018 |
| 18/00738/ADVT<br><br>Walbrook | 27 - 32 Old Jewry London<br>EC2R 8DQ | Installation and display of: (i) one halo-illuminated fascia sign measuring 0.48m high by 3.31m wide at a height above ground of 4.89m; and (ii) one externally illuminated projecting sign measuring 0.9m high by 0.6m wide at a height above ground of 3.4m. | Approved<br><br>06.11.2018 |

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| Committee(s) | Dated: |
|---|---|
| Planning and Transportation | 20th November 2018 |
| **Subject:**<br>Valid planning applications received by Department of the Built Environment | **Public** |
| **Report of:**<br>Chief Planning Officer and Development Director | **For Information** |

**Summary**

Pursuant to the instructions of your Committee, I attach for your information a list detailing development applications received by the Department of the Built Environment since my report to the last meeting.

Any questions of detail arising from these reports can be sent to plans@cityoflondon.gov.uk.

**Details of Valid Applications**

| Application Number & Ward | Address | Proposal | Date of Validation |
|---|---|---|---|
| 18/00922/FULL<br>Billingsgate | 10 Lower Thames Street, London, EC3R 6EN | Change of use of part of the ground floor of the building from office (Class B1) to retail (Class A1/A3) (280sq.m) and associated works to entrance doors and glazing. (Amended description) | 04/10/2018 |
| 18/01105/FULL<br>Billingsgate | 10 Lower Thames Street, London, EC3R 6EN | Application for the erection of a cafe/restaurant/bar (Class A3/ A4) pavilion and associated public realm Improvements to part of the quayside walkway adjacent to 10 Lower Thames Street. | 19/10/2018 |
| 18/01138/FULL<br>Billingsgate | Retail Unit 2, 20 Eastcheap, London, EC3M 1EB | (i) Change of use from shop (Class A1) to a mixed use (Sui Generis) comprising shop/drinking establishment (Class A1/Class A4) (58.7sq.m) and drinking establishment (Class A4)(280.3sq.m) (total floorspace: 339sq.m); (ii) alterations to the existing shopfront including new windows, replacement corner entrance doors and new entrance door to Eastcheap. | 25/10/2018 |

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|---|---|---|---|
| 18/00989/FULL Bishopsgate | Bishopsgate Institute, 230 Bishopsgate, London, EC2M 4QH | Installation of new mechanical ventilation and cooling systems to serve the Library, Great Hall, Upper Hall, and basement archive and erection of five dormer vents to upper hall roof to match existing. | 19/09/2018 |
| 18/01048/FULL Bishopsgate | Broadgate Circle, London, EC2 | Use of Broadgate Circle for a temporary Christmas forest with bar, food trucks, pergolas, seating and ancillary facilities. | 04/10/2018 |
| 18/01065/FULEIA Bishopsgate | 1-2 Broadgate, London, EC2M 2QS | Demolition of the existing buildings and construction of a building arranged over two basement levels, lower ground, upper ground and 12 upper floors plus rooftop plant to provide flexible retail, leisure and mixed retail/leisure uses (Class A1/A3/A4/D2/Sui Generis) at lower levels (Basement to 2nd floor), restaurant (Class A3) at 7th floor level and office (Class B1) at upper floor levels (3rd to 12th floor); hard and soft landscaping works; outdoor seating associated with ground level retail and other works incidental to the development. (78,020sq.m GEA) This application is accompanied by an Environmental Statement. A CD copy of the Environmental Statement may also be obtained from Tim Holtham, DP9, 100 Pall Mall, London, SW1Y 5NQ. | 11/10/2018 |
| 18/00985/FULL Broad Street | 46 New Broad Street, London, EC2M 1JH | Change of use of part of the fourth floor from office (Class B1) to a flexible use for either office (Class B1) or health clinic (Class D1) (10sq.m). | 05/10/2018 |
| 18/01115/FULL Castle Baynard | Bouverie House, 154 - 160 Fleet Street, London, EC4A 2DQ | Installation of metal railings and gate. | 22/10/2018 |
| 18/01116/FULL Castle Baynard | St Paul's Cathedral, St Paul's Churchyard, London, EC4M 8AD | Provision of a metal modular access ramp to the west side of the South Transept entrance of St Paul's Cathedral for a temporary period. | 30/10/2018 |

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| 18/00869/FULL<br>Cheap | 1 - 3 Frederick's Place, London, EC2R 8AE | Alterations to the buildings comprising: (i) simplification of balustrade from cross metal grid to steel balustrade painted black at fourth and fifth floors; (ii) one timber window to be replaced by a new steel window with a black framing at first floor on the West elevation; (iii) one timber door to be replaced by a new steel door with black framing at first floor on the West elevation; and (iv) one new steel door with black framing at first floor on St. Olave's court elevation. | 17/10/2018 |
| 18/00936/FULL<br>Farringdon Within | 25 Farringdon Street, London, EC4A 4AB | Installation of an automatic roller shutter security gate to the front of the bin store in Bear Alley, with the addition of mesh fencing along the flank and rear elevations. | 19/10/2018 |
| 18/01107/FULL<br>Farringdon Without | General Market, Farringdon Street, London, EC1A | Retention of photographic artwork on existing hoardings on the General Market facade fronting on to Farringdon Street. | 19/10/2018 |
| 18/01106/FULL<br>Farringdon Without | 1A Smithfield Street, London, EC1A 9JQ | Retention of photographic artwork on existing scaffolding on the front elevation of the Red House facade. | 19/10/2018 |
| 18/01026/FULL<br>Farringdon Without | Flat 2, 11 - 13 Bream's Buildings, London, EC4A 1DT | (i) Conversion of Flat 2 (duplex two bed-flat) into two duplex one-bed flats situated at basement and ground floor level; (ii) creation of new doorway in place of an existing window and access bridge over the existing lightwell at the rear of the building at ground floor level. | 30/10/2018 |
| 18/00995/FULL<br>Langbourn | 153 Fenchurch Street, London, EC3M 6BB | Extension to the rear at fourth floor level and the formation of a new mansard style floor at fifth floor level, including plant room and terrace at sixth floor level. | 12/10/2018 |
| 18/01146/FULL<br>Lime Street | Hasilwood House, 60 - 62 Bishopsgate, London, EC2N 4AW | Change of use from office floorspace (Use Class B1) to sports facility (Use Class D2) of 159sq.m floorspace at ground floor level and associated alterations. | 29/10/2018 |
| 18/01024/FULL<br>Vintry | Ormond House, 63 Queen Victoria Street, London, EC4N 4UA | Change of use at basement level from office (class B1) to a physiotherapy clinic (class D1). (25sq.m) | 15/10/2018 |

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| Committee(s): | Dates(s): |
|---|---|
| Finance | 13th November 2018 |
| Planning & Transportation | 20th November 2018 |
| Streets and Walkways Sub | 4th December 2018 |
| Court of Common Council | 6th December 2018 |
| **Subject:** Annual On-Street Parking Accounts 2017/18 and Related Funding of Highway Improvements and Schemes | **Public** |
| **Report of:** Chamberlain | **For Information** |
| **Report author:** Simon Owen, Chamberlain's Department | |


**Summary**

The City of London in common with other London authorities is required to report to the Mayor for London on action taken in respect of any deficit or surplus in its On-Street Parking Account for a particular financial year.

The purpose of this report is to inform Members that:

- the surplus arising from on-street parking activities in 2017/18 was £14.523m;
- a total of £4.664m, was applied in 2017/18 to fund approved projects; and
- the surplus remaining on the On-Street Parking Reserve at 31st March 2018 was £29.980m, which will be wholly allocated towards the funding of various highway improvements and other projects over the medium term.


**Recommendation**

Members are asked to:

- Note the contents of this report for their information before submission to the Mayor for London.

**Main Report**

**Background**

1. Section 55(3A) of the Road Traffic Regulation Act 1984 (as amended), requires the City of London in common with other London authorities (i.e. other London Borough Councils and Transport for London), to report to the Mayor for London on action taken in respect of any deficit or surplus in their On-Street Parking Account for a particular financial year.

2. Legislation provides that any surplus not applied in the financial year may be carried forward. If it is not to be carried forward, it may be applied by the City for one or more of the following purposes:

a) making good to the City Fund any deficit charged to that Fund in the 4 years immediately preceding the financial year in question;

b) meeting all or any part of the cost of the provision and maintenance by the City of off-street parking accommodation whether in the open or under cover;

c) the making to other local authorities, or to other persons, of contributions towards the cost of the provision and maintenance by them, in the area of the local authority or elsewhere, of off-street parking accommodation whether in the open or under cover;

d) if it appears to the City that the provision in the City of further off-street parking accommodation is for the time being unnecessary or undesirable, for the following purposes, namely:

- meeting costs incurred, whether by the City or by some other person, in the provision or operation of, or of facilities for, public passenger transport services;
- the purposes of a highway or road improvement project in the City;
- meeting the costs incurred by the City in respect of the maintenance of roads at the public expense; and
- for an "environmental improvement" in the City.

e) meeting all or any part of the cost of the doing by the City in its area of anything which facilitates the implementation of the Mayor's Transport Strategy, being specified in that strategy as a purpose for which a surplus can be applied; and

f) making contributions to other authorities, i.e. the other London Borough Councils and Transport for London, towards the cost of their doing things upon which the City in its area could incur expenditure upon under (a)-(e) above.

3. In the various tables of this report, figures in brackets indicate expenditure, reductions in income or increased expenditure.

**2017/18 Outturn**

4. The overall financial position for the On-Street Parking Reserve in 2017/18 is summarised below:

| | £m |
|---|---|
| Surplus Balance brought forward at 1st April 2017 | 20.121 |
| Surplus arising during 2017/18 | 14.523 |
| Expenditure financed during the year | (4.664) |
| **Funds remaining at 31st March 2018, wholly allocated towards funding future projects** | **29.980** |

5. Total expenditure of £4.664m in 2017/18 was financed from the On-Street Parking Reserve, covering the following approved projects:

| **Revenue/SRP Expenditure:** | **£000** |
|---|---|
| Highway resurfacing, maintenance & enhancements | (2,241) |
| Concessionary fares & taxi card scheme | (493) |
| Bank Junction experimental safety scheme | (443) |
| Off-Street car parking costs funded from reserves | (225) |
| Special needs transport | (78) |
| Minories car park structural building report | (45) |
| HVM security team | (32) |
| Temple Area traffic review | (31) |
| Dominant House footbridge repairs | (24) |
| Barbican Podium waterproofing | (14) |
| Beech Street tunnel | (6) |
| Cleansing / planting maintenance / other | (2) |
| **Total Revenue/SRP Expenditure** | **(3,634)** |
| **Capital Expenditure:** | |
| Street Lighting project | (720) |
| Aldgate | (257) |
| Beech Gardens Barbican Podium waterproofing | (48) |
| Milton Court highway works S278 | (5) |
| **Total Capital Expenditure** | **(1,030)** |
| **Total Expenditure Funded in 2017/18** | **(4,644)** |

6. The surplus on the On-Street Parking Reserve brought forward from 2016/17 was £20.121m. After expenditure of £4.644m funded in 2017/18, a surplus balance of £9.859m was carried forward to future years to give a closing balance at 31st March 2018 of £29.980m.

7. Currently total expenditure of some £81.364m is planned over the medium term from 2018/19 until 2022/23 (as detailed in Table 1), by which time it is anticipated that the existing surplus plus those estimated for future years will be fully utilised.

8. The total programme covers numerous major capital schemes including funding towards the Street Lighting project; HVM security bollards; Thames Court footbridge; Barbican Podium waterproofing & Highwalk remedial works; repairs to Holborn Viaduct & Snow Hill pipe subways; Temple Area traffic review; London Wall car park waterproofing, joint replacement & concrete repairs; Dominant House footbridge repairs; and Bank Junction permanent safety scheme.

9. The programme also covers ongoing funding of future revenue projects, the main ones being highway resurfacing, enhancements & road maintenance projects; concessionary fares & taxi cards; contributions to the costs of Off-Street car parks; Bank Junction experimental safety scheme; Minories car park structural building report; and special needs transport. The progression

of each individual scheme is, of course, subject to the City's normal evaluation criteria and Standing Orders.

10. A forecast summary of income and expenditure arising on the On-Street Parking Account and the corresponding contribution from or to the On-Street Parking surplus, over the medium-term financial planning period, is shown below:

| **Table 1**<br>**On-Street Parking Account Reserve Projections 2017/18 to 2022/23** | **2017/18**<br>**Actual**<br>**£m** | **2018/19**<br>**Forecast**<br>**£m** | **2019/20**<br>**Forecast**<br>**£m** | **2020/21**<br>**Forecast**<br>**£m** | **2021/22**<br>**Forecast**<br>**£m** | **2022/23**<br>**Forecast**<br>**£m** | **Total**<br>**£m** |
|---|---|---|---|---|---|---|---|
| Income | 21.0 | 16.9 | 15.5 | 14.6 | 13.9 | 13.4 | 95.3 |
| Expenditure (*Note 1*) | (6.5) | (4.2) | (4.6) | (4.6) | (4.7) | (4.8) | (29.4) |
| **Net Surplus arising in year** | **14.5** | **12.7** | **10.9** | **10.0** | **9.2** | **8.6** | **65.9** |
| Capital, SRP and Revenue Commitments | (4.6) | (20.6) | (26.7) | (16.0) | (9.3) | (8.8) | (86.0) |
| **Net in year contribution (from)/ to surplus** | **9.9** | **(7.9)** | **(15.8)** | **(6.0)** | **(0.1)** | **(0.2)** | **(20.1)** |
| (Deficit) / Surplus cfwd at 1st April | 20.1 | 30.0 | 22.1 | 6.3 | 0.3 | 0.2 | |
| **(Deficit) / Surplus cfwd at 31st March** | **30.0** | **22.1** | **6.3** | **0.3** | **0.2** | **0.0** | |

*Note 1: On-Street operating expenditure relates to direct staffing costs, repair & maintenance of pay & display machines, Indigo contractor costs, fees & services (covering cash collection, pay by phone, postage & legal), IT software costs for enforcement systems, provision for bad debts for on-street income and central support recharges.*

11. A noticeable increase in income has been generated since 2017/18 due to the Bank Junction Experimental Safety Scheme, that has since been made permanent following agreement at Court of Common Council on 13th September 2018. Depending upon future motorist's compliance, these forecast future income streams may need refining.

## Conclusion

12. So that we can meet our requirements under the Road Traffic Regulation Act 1984 (as amended), we ask that the Court of Common Council notes the contents of this report, which would then be submitted to the Mayor of London.

## Background Papers

13. Road Traffic Regulations Act 1984; Road Traffic Act 1991; GLA Act 1999 sect 282.

14. Final Accounts 2017/18.

**Simon Owen**
Chamberlain's Department

T: 020 7332 1358
E: simon.owen@cityoflondon.gov.uk

| Committee(s): | Date(s): | Item no. |
|---|---|---|
| Planning & Transportation Committee | 20 November 2018 | |
| **Subject:**<br>Revenue and Capital Budgets - 2019/20 | | **Public** |
| **Report of:**<br>The Chamberlain<br>Director of the Built Environment<br>Director of Open Spaces | | **For Decision** |

## Summary

This report is the annual submission of the revenue and capital budgets overseen by your Committee. In particular it seeks approval to the latest revenue budget for 2018/19 and provisional revenue budget for 2019/20, for subsequent submission to the Finance Committee. Details of the Committee's draft capital budget are also provided. The budgets have been prepared within the resources allocated to each Director, including a 2% reduction for efficiency savings.

| **Table 1**<br>**Summary Revenue Budgets**<br>**2018/19 and 2019/20** | **Original Budget 2018/19 £'000** | **Latest Budget 2018/19 £'000** | **Original Budget 2019/20 £'000** |
|---|---|---|---|
| Expenditure | (40,750) | (40,532) | (40,293) |
| Income | 33,379 | 33,757 | 32,816 |
| Support Services & Capital Charges | (13,270) | (13,053) | (12,585) |
| **Total Net Expenditure** | **(20,641)** | **(19,828)** | **(20,062)** |

Overall, the 2018/19 latest budget is £19.828m, a decrease of £813,000 compared with the original budget for 2018/19. The main variations relate to:

**Budget reductions:**

- Decrease in allocated project costs from the City Surveyor's Cyclical Works Programme (CWP) £1,365,000, reflecting changes in composition and phasing of works.
- Decreased support services and capital charges £562,000, relating mostly to a reduction in highway infrastructure asset depreciation costs.
- Increased Off-Street car parking income £200,000, due to additional usage.
- Decreased employee costs £163,000, due to staff vacancies.

**Budget increases:**

- Reduced transfer requirement from On-Street Parking Reserve £732,000, mainly due to reduced CWP projects and additional income generated at the car parks.
- Shortfall in staff costs recharged to capital projects £290,000, due to the Strategic Transportation Team working on non-recoverable transport strategy.
- Increased DBE Directorate Team recharges £277,000, reflects a variety of projects funded from reallocation of Departmental underspends.
- Additional Bridge House Estate (BHE) funding £78,000, provided to the City Police for policing the bridges and enforcement costs.
- Increased Structural Maintenance Team recharges £88,000, reflecting increased works on highways and bridges structures.

The 2019/20 provisional budget is £20.062m, a decrease of £579,000 compared with the original budget for 2018/19. The main variations relate to:

**Budget reductions:**

- Decreased support services and capital charges £926,000, mainly attributable to a reduction in highway infrastructure asset depreciation costs.
- Reduced surplus transferred to the On-Street Parking Reserve £909,000, mainly due to projected reductions in Bank on Safety income from improved compliance, increase in Indigo enforcement costs and additional Traffic & Congestion Officer posts.
- Decreased costs of the City Surveyor's Cyclical Works Programme £490,000, reflecting changes in composition and phasing of works.
- Net 2% Departmental efficiency savings £320,000.
- Projected increased Planning Performance Agreements income £100,000.

**Budget increases:**

- Decreased On-Street Parking income £450,000, due to reduced Bank on Safety PCN's £1,689,000 which are partly offset by additional parking meter income £600,000 and business as usual PCN's £639,000.
- Reduced transfer requirement from the On-Street Parking Reserve £372,000, mainly due to reduced CWP projects at the car parks.
- Increased pay award costs £363,000.
- Shortfall in staff costs recharged to capital projects £269,000, mainly due to the Strategic Transportation Team working on non-recoverable transport strategy.
- Uplift in On-Street and Off-Street Parking contracts £266,000, due largely to London Living Wage (LLW) increases and additional evening Civil Enforcement Officers (CEO).
- Increased DBE Directorate Team recharges £157,000, reflects additional Programme Management posts and development of staff for talent/leadership programme.
- Additional BHE funding £84,000, provided to the City Police for policing the bridges and enforcement costs.
- Additional funding required for Flood Risk and Future Resilience costs £78,000.
- Preparation costs for 2020/21 Sculpture in the City Exhibition £70,000.
- Projected reduction in Land Charges income £50,000.

## Business Priorities for the forthcoming year

**Director of the Built Environment**

- Creating and facilitating the leading future world class City
- Delivering the ultimate flexible-working-space-inspiring, dynamic & secure City
- Being digitally and physically well-connected and responsive
- Providing outstanding public spaces, heritage attractions, retail and hospitality
- Offering a focal point for world-class creativity and culture
- Growing the economy and contributing to a flourishing society
- Providing high quality, effective and relevant services for a world class City

**Director of Open Spaces**

- The draft business plan priorities for 2019/20 for Tower Bridge Operational Service area covered by this Committee, is contained within a separate report in the higher-level business plan reported to Open Spaces Committee.

## Recommendations

The Committee is requested to:

- Note the latest 2018/19 revenue budget **(para 5 to 21).**
- Review the provisional 2019/20 revenue budget to ensure that it reflects the Committee's objectives and, if so, approve the budget for submission to Finance Committee **(para 22 to 38)**.
- Review and approve the draft capital budget **(para 46 to 48)**.
- Review and approve the draft 50-year Bridges' Repairs, Maintenance and Major Works Fund budgets and the consequent required contributions **(para 42 to 45)**.
- Agree the budget virement of the Department of Built Environment Directorate Team from Port Health Committee to Planning Transportation Committee **(para 41)**.
- Agree additional funding of £78,000 in 2019-20, which is over and above the resource base and relates to flood risk and future resilience, to be drawn down from the un-ringfenced government grant provision for Lead Local Flood Authorities, subject to agreement of Resource Allocation Sub and Policy & Resources Committee **(para 22)**.
- Members are asked to delegate to the Chamberlain any minor budget changes required from the completion of the asset verification exercise **(para 39)**.
- Authorise the Chamberlain to revise budgets in respect of recharges.

## Main Report

### Background

1. This report sets out the latest budget for 2018/19 and the proposed revenue budgets for 2019/20. The revenue budget management arrangements are to:

    - Provide a clear distinction between local, central and recharge risk budgets.
    - Place responsibility for budgetary control on departmental Chief Officers.
    - Apply a cash limit policy to Chief Officers' budgets.

2. The budget has been analysed by service expenditure and compared with the original budget for 2018/19. The budget is further analysed between:

    - **Local Risk budgets** – these are budgets deemed to be largely within the Chief Officer's control.
    - **Central Risk budgets** – these are budgets comprising specific items where a Chief Officer manages the underlying service, but where the eventual financial outturn can be strongly influenced by external factors outside of their control or are budgets of a corporate nature (e.g. interest on balances and rent incomes from investment properties).
    - **Support Services and Capital Charges** – these cover budgets for services provided by one activity to another. The control of these costs is exercised at the point where the expenditure or income first arises as local or central risk.

3. The forecast outturn for 2018/19 is projected to be within the current year's latest approved budget.

4. In the various tables, expenditure and adverse variances are presented in brackets. Only significant variances (generally those greater than £50,000) have been commented on.

## Latest Revenue Budget 2018/19

5. Overall there is a decrease in cost of £813,000 between the Committees original and latest budget for 2018/19. Table 2 below summarises the movements between the original and latest budgets comprising this decrease. A further analysis of the local and central revenue budgets by service is provided in Appendix 1.

| **Table 2**<br>**Latest Revenue Budget 2018/19** | Local or Central Risk | Original Budget 2018-19 £'000 | Latest Budget 2018-19 £'000 | Movement (Increase)/ Decrease £'000 | Para Ref |
|---|---|---|---|---|---|
| **Expenditure** | | | | | |
| Employees | L | (13,535) | (13,372) | 163 | 7 |
| Employees | C | (120) | (146) | (26) | |
| Premises Related Expenses | L | (5,547) | (6,128) | (581) | 8/14 |
| Premises Related Expenses | C | (1,151) | (1,121) | 30 | |
| City Surveyor – Repairs & Maintenance | L | (2,060) | (695) | 1,365 | 9 |
| Transport Related Expenses | L | (28) | (78) | (50) | 10 |
| Supplies & Services | L | (1,131) | (1,759) | (628) | 11/14 |
| Supplies & Services | C | (545) | (593) | (48) | |
| Third Party Payments | L | (3,824) | (3,906) | (82) | 12 |
| Third Party Payments | C | (271) | (204) | 67 | 13 |
| Contingencies | C | (15) | (15) | 0 | |
| Transfer to Reserve | C | (12,376) | (12,384) | (8) | |
| Capital Charges | C | (147) | (131) | 16 | |
| **Total Expenditure** | | **(40,750)** | **(40,532)** | **218** | |
| **Income** | | | | | |
| Government Grants | C | 100 | 104 | 4 | |
| Grants, Reimbursements & Contributions | L | 220 | 1,252 | 1032 | 14 |
| Customer, Client Receipts | L | 8,782 | 9,000 | 218 | 15 |
| Customer, Client Receipts | C | 17,238 | 17,384 | 146 | 16 |
| Transfer from Reserves | C | 2,888 | 2,156 | (732) | 17 |
| Recharges to Capital Projects | L | 4,091 | 3,801 | (290) | 18 |
| Recharges to Capital Projects | C | 60 | 60 | 0 | |
| **Total Income** | | **33,379** | **33,757** | **378** | |
| **Total Local & Central Risk Exp** | | **(7,371)** | **(6,775)** | **596** | |
| **Support Services & Capital Charges** | | | | | |
| Central Support & Capital Charges | | (12,290) | (11,728) | 562 | 19 |
| Recharges within Fund | | (755) | (1,032) | (277) | 20 |
| Recharges Across Funds | | (225) | (293) | (68) | 21 |
| **Total Support Services & Capital** | | **(13,270)** | **(13,053)** | **217** | |
| **TOTAL NET (EXPENDITURE)/INCOME** | | **(20,641)** | **(19,828)** | **813** | |

6. The significant movements in the local and central budgets are explained in the paragraphs below.

7. Employee cost decrease £163,000, is due to staff vacancies.

8. Increase of £581,000 in premises costs relates to Local Implementation Plan Programme £193,000, street scene works £192,000 and Thames Water contract costs £56,000, which are all fully offset by matching income contributions (see para 14). Further increases relate to Minories and Tower Hill car parks rates revaluation costs £81,000, Aldgate highway maintenance costs £30,000 and carry-forwards from 2017/18 for highways resurfacing £29,000.

9. Decrease of £1,365,000, reflecting changes in composition and phasing of works to the CWP.

10. Increase of £50,000, relates to replacement vehicle cost for the Highways Drainage Team to comply with ULEZ legislation.

11. Increase of £628,000 in supplies and services costs relates to:

    - Local Implementation Plan Programme £355,000 and street scene works £199,000, all of which are offset by matching income contributions (para 14).
    - Carry-forwards from 2017/18 £36,000, relating to Town Planning Smart App.
    - Staff cost recharge from Building Control to Town Planning for assessing new major development applications for flood risk mitigation measures £22,000.
    - Other running costs £16,000.

12. Additional On-Street Parking civil enforcement Indigo contract costs £82,000, due to higher than anticipated CPI and LLW increases and additional evening CEO officer costs.

13. Decreased cost of £67,000, relates to reduced CEO agency staff specifically engaged on the Bank on Safety Scheme.

14. Matching income contributions for the Local Implementation Plan Programme £558,000, street scene works £391,000 and Thames Water contract reimbursement £83,000 (para 8 and 11).

15. Increased car park income of £194,000 due to additional usage, additional income from Planning Performance Agreements and Statements of Significance £100,000, and additional staff cost recharge income £22,000 for work on assessing new major development applications for flood risk mitigation measures. These are partly offset by shortfalls in Building Control fee income £100,000, due to uncertainty in the markets in light of Brexit.

16. Increased parking meter income £475,000 and additional income from Planning Performance Agreement £85,000, which are offset by reduced Bank on Safety PCN income £384,000 and shortfalls in Land Charges income £30,000.

17. Reduced transfer requirement from reserves to Off-Street Parking is mainly due to reduced CWP works £664,000 and additional car park income £200,000, which are partly off-set by increased rate revaluation costs £70,000.

18. Shortfall in staff costs recovered from capital projects due to the Strategic Transportation Team whose time is not recoverable for work on the transport strategy.

19. Decrease in support services and capital charges £562,000, relates mostly to a reduction in highway infrastructure asset depreciation costs £880,000, which are partly offset by increased support service and IS recharges £343,000 (see appendix 3).

20. Increased DBE Directorate Team recharges £277,000 reflects a variety of projects funded from reallocation of Departmental underspends. These include additional Programme Management posts, development of staff for talent/leadership programme, apprenticeship training, accommodation moves, London Festival Architectural membership/sponsorship and recruitment costs for Transportation and Public Realm Director post.

21. Increased funding of £78,000 from BHE to City Police for policing the bridges and enforcement costs.

**Proposed Revenue Budget for 2019/20**

22. The provisional 2019/20 budgets being presented to your Committee have been prepared within the resources allocated to each Director and in accordance with guidelines agreed by the Policy & Resources and Finance Committees, which includes a 2% reduction for efficiency savings. Additional funding of £78,000 relating to Flood Risk and Future Resilience work is requested from the un-ringfenced government grant provision for Lead Local Flood Authorities of £278,045, subject to the approval of Resource Allocation and Policy and Resources Committee's.

23. Overall there is a decrease of £579,000 between the Committees 2018/19 and 2019/20 original budgets. Table 3 below summarises the movements comprising this decrease. A further analysis of the local and central revenue budgets by service is provided in Appendix 2.

| **Table 3**<br>**Provisional Revenue Budget 2019/20** | Local or Central Risk | Original Budget 2018-19 £'000 | Original Budget 2019-20 £'000 | Movement (Increase)/ Decrease £'000 | Para Ref |
|---|---|---|---|---|---|
| **Expenditure** | | | | | |
| Employees | L | (13,535) | (13,898) | (363) | 25 |
| Employees | C | (120) | (120) | 0 | |
| Premises Related Expenses | L | (5,547) | (5,789) | (242) | 26 |
| Premises Related Expenses | C | (1,151) | (1,173) | (22) | |
| City Surveyor – Repairs & Maintenance | L | (2,060) | (1,570) | 490 | 27 |
| Transport Related Expenses | L | (28) | (28) | 0 | |
| Supplies & Services | L | (1,131) | (1,154) | (23) | |
| Supplies & Services | C | (545) | (672) | (127) | 28 |
| Third Party Payments | L | (3,824) | (4,090) | (266) | 29 |
| Third Party Payments | C | (271) | (173) | 98 | 30 |
| Contingencies | C | (15) | (15) | 0 | |
| Transfer to Reserve | C | (12,376) | (11,467) | 909 | 31 |
| Capital Charges | C | (147) | (144) | 3 | |
| **Total Expenditure** | | **(40,750)** | **(40,293)** | **457** | |
| | | | | | |
| **Income** | | | | | |
| Government Grants | C | 100 | 100 | 0 | |
| Grants, Reimbursements & Contributions | L | 220 | 205 | (15) | |
| Customer, Client Receipts | L | 8,782 | 9,288 | 506 | 32 |
| Customer, Client Receipts | C | 17,238 | 16,825 | (413) | 33 |
| Transfer from Reserves | C | 2,888 | 2,516 | (372) | 34 |
| Recharges to Capital Projects | L | 4,091 | 3,822 | (269) | 35 |
| Recharges to Capital Projects | C | 60 | 60 | 0 | |
| **Total Income** | | **33,379** | **32,816** | **(563)** | |
| | | | | | |
| **Total Local & Central Risk Exp** | | **(7,371)** | **(7,477)** | **(106)** | |
| | | | | | |
| **Support Services & Capital Charges** | | | | | |
| Central Support & Capital Charges | | (12,290) | (11,364) | 926 | 36 |
| Recharges within Fund | | (755) | (912) | (157) | 37 |
| Recharges Across Funds | | (225) | (309) | (84) | 38 |
| **Total Support Services & Capital** | | **(13,270)** | **(12,585)** | **685** | |
| | | | | | |
| **TOTAL NET (EXPENDITURE)/INCOME** | | **(20,641)** | **(20,062)** | **579** | |

24. The significant movements in local and central budgets are explained in the paragraphs below.

25. Increase in employee costs due to a 2% increase in basic pay, 5% increase on London Weighting, incremental & career-grade progression and additional Traffic & Congestion Officers (funded from On-Street Parking Reserve).

26. Increase due to Minories and Tower Hill car parks rates revaluation £81,000, extra Aldgate maintenance costs £75,000, preparation for 2020/21 Sculpture in the City exhibition costs £70,000 and increased Bridges electricity costs £16,000.

27. Decrease of £490,000 reflecting changes in composition and phasing of works to the City Surveyors CWP.

28. Increase of £127,000 mainly relates to new emissions-based tariff contract costs for parking meter charges.

29. Uplift in Indigo contract costs including LLW increases for On-Street and Off-Street parking contracts and additional costs for extra evening CEO's.

30. Decrease of £98,000 relates to reduced CEO agency staff specifically engaged on the Bank on Safety Scheme.

31. Decrease of £909,000 in surplus transferred to On Street Parking Reserve due to increased net operating costs for On-Street parking, mainly as a result of projected income reductions from Bank on Safety Scheme from improved compliance, increase in Indigo enforcement costs and additional Traffic & Congestion Officers.

32. Increased car park income £200,000 due to additional usage, additional income from Planning Performance Agreements and Statements of Significance £100,000, additional staff cost recharge income £25,000 for assessing new major development applications for flood risk mitigation measures, additional road closure and hoarding & scaffolding license fee increases £150,000 and new charges for street naming and building numbering £18,000.

33. Decrease of £413,000 relates to reduced Bank on Safety PCN's £1,689,000 and reduced land charge income £50,000. These are partly offset by additional parking meter income £600,000, business as usual PCN's £639,000 and Planning Performance Agreements £85,000.

34. Decrease required in transfer from reserves to Off-Street Parking, due to reduced net operating costs at the car parks, largely due to changes in phasing of CWP.

35. Shortfall in staff costs recovered from capital projects due to the Strategic Transportation Team whose time is not recoverable for work on the transport strategy.

36. Decrease in support services and capital charges £926,000 relates mostly to a reduction in highway infrastructure asset depreciation costs £1,269,000, which are offset by increased support service and insurance recharges £333,000 (see appendix 3).

37. Increased DBE Directorate Team recharges £157,000 reflects additional costs for Programme Management posts and development of staff for talent/leadership programme.

38. Increased funding of £78,000 from BHE to City Police for policing the bridges and enforcement costs.

**Cyclical Works Programme**

39. The decrease of £490,000 in the 2019/20 budget for the City Surveyor's CWP reflects changes in the composition and phasing of the works (see Table 4 below). An asset verification exercise has also been completed by the City Surveyors Department across the Operational estate and has identified an additional 8% of assets to be maintained, including those in new buildings, that are not covered by the current contract. The outcome of this exercise has been reported to the relevant Corporation committee and additional budgetary provision has been sought. Once this is agreed it is intended to adjust the relevant budget shown in this report as appropriate and Members are asked to agree a delegation to the Chamberlain to make these minor budgetary changes, as a result of the completion of the asset verification exercise.

| Table 4<br>City Surveyor Local Risk<br>Repairs and Maintenance | Original Budget 2018/19 £'000 | Original Budget 2019/20 £'000 | Movement 2018/19 to 2019/20 £'000 |
|---|---|---|---|
| **Cyclical Works Programme** | **(1,809)** | **(1,338)** | **471** |
| **Planned, Re-active and Cyclical Works** | | | |
| Highways | (139) | (85) | 54 |
| Off Street Parking | (88) | (139) | (51) |
| Town Planning | (24) | (8) | 16 |
| | **(251)** | **(232)** | **19** |
| **Total City Surveyor** | **(2,060)** | **(1,570)** | **490** |

40. A summary of the movement in manpower and related staff costs are shown in Table 5 below.

| Table 5<br>Manpower statement | Original Budget 2018/19 | | Original Budget 2019/20 | |
|---|---|---|---|---|
| | Manpower Full-time Equivalent | Estimated Cost £000 | Manpower Full-time Equivalent | Estimated Cost £000 |
| **Director of Built Environment** | | | | |
| Town Planning | 52.8 | (3,126) | 53.8 | (3,307) |
| Planning Obligations | 2.2 | (128) | 2.2 | (136) |
| Transportation Planning | 50.0 | (3,215) | 47.0 | (3,112) |
| Road Safety | 4.0 | (252) | 4.0 | (260) |
| Building Control | 25.4 | (1,574) | 23.9 | (1,559) |
| Structural Maintenance/Inspections | 5.3 | (358) | 5.1 | (360) |
| Highways | 25.8 | (1,618) | 26.8 | (1,621) |
| Traffic Management | 17.5 | (817) | 18.5 | (913) |
| Off-Street Parking | 2.0 | (97) | 2.0 | (98) |
| On-Street Parking | 13.4 | (752) | 16.4 | (920) |
| Drains & Sewers | 8.4 | (429) | 8.4 | (452) |
| Vacancy Factor | | 107 | | 162 |
| | **206.8** | **(12,259)** | **207.6** | **(12,576)** |
| **Director Open Spaces** | | | | |
| Tower Bridge Operational | 30.4 | (1,396) | 29.7 | (1,442) |
| | **30.4** | **(1,396)** | **29.7** | **(1,442)** |
| **Total P&T Committee** | **237.2** | **(13,655)** | **237.3** | **(14,018)** |

## Potential Further Budget Developments

41. Members approval is requested to transfer the Department of Built Environment Directorate Team budget from Port Health Committee to directly reporting to Planning & Transportation Committee, as the majority of the costs fall under the work of this Committee.

## Bridges Repairs, Maintenance and Major Works

42. The functions relating to the control, maintenance and repair of the 5 City river bridges (delegated to Planning and Transportation Committee) is exercised in the City's capacity as trustee of Bridge House Estates (BHE). The main purpose of the BHE charity is the maintenance and support of the bridges. In considering whether or not to expend funds of the BHE, the City Corporation as sole trustee of the charity must ensure expenditure is in furtherance of the charitable purposes and BHE is compliant with the duties on the City as trustee (including to act in the best interests of the charity). See Appendix 4 for a summary of the principal duties and responsibilities of charity trustees.

43. The City as trustee has established a designated fund to meet expenditure on repair, maintenance and works on the bridges, known as the BHE Bridges, Repairs, Maintenance and Major Works Fund. It is operated to provide sufficient resources to meet maintenance costs of the five bridges over a period of 50 years. In accordance with the management of the fund, the schemes have been reviewed and updated in the 50 year projections to 2068/69. These are shown in Appendix 5.

44. The balance of the Fund stood at £145.664m as at 1 April 2018, which comprised of property investments of £40.5m, managed investments of £99.8m and cash of £5.4m. In accordance with the management of the fund, the Director of Built Environment has reviewed and updated the schemes included in the 50 year projections to 2068/69. A summary of the works projection and consequent contributions from Bridge House Estates is shown below in Table 6. The proposed works are considered to be within the purposes of BHE and the planned expenditure appropriate.

**Table 6:**
**Thames Bridges Repairs, Maintenance and Major Works Fund**
**50 Year Works and Required Contributions Projection to 2068/69**

| | £'000 | £'000 |
|---|---|---|
| **Balance brought forward 1st April 2018** | | **145,664** |
| Planned expenditure (inflated at 2% pa): | | |
| • Blackfriars Bridge | (50,652) | |
| • Southwark Bridge | (43,361) | |
| • London Bridge | (26,078) | |
| • Millennium Bridge | (34,043) | |
| • Tower Bridge | (125,598) | (279,732) |
| Forecast income: | | |
| • Managed Investments | 129,151 | |
| • Interest Accruing | 3,035 | |
| • Rental Income from Bridge House Estates | 89,370 | 221,556 |
| Net balance before planned contributions | | 87,488 |
| Planned contributions to Fund | | 97,831 |
| **Forecast balance as at 31st March 2069** | | **185,319** |

45. Within the budgets provided for you as part of the overall Bridges Repairs Fund, there are a number of supplementary revenue projects which will be required to proceed through the gateway approval procedure and are summarised in Table 7 below.

| **Table 7** | **Project** | **Budget** | **Starting Date** |
|---|---|---|---|
| Blackfriars Bridge | Parapet repairs/ metal Replacement/ Painting | £8,218,400 | 2018/19-2020/21 |
| Southwark Bridge | Approach Spans Refurbishment | £2,040,000 | 2019/20 |
| London Bridge | Bearing replacement/Waterproofing/ Resurfacing<br>Scour Protection | £3,977,000<br>£650,000 | 2018/19-2019/20<br>2020/21 |
| Millennium Bridge | Cable re-tensioning (if required) | £552,000 | 2019/20-2020/21 |
| Tower Bridge | Hydraulic & Power Pack Replacement<br>Insulation of Walkway Roofs<br>High Voltage System replacement | £1,185,400<br>£1,530,000<br>£1,530,000 | 2019/20-2020/21<br>2019/20<br>2019/20 |

## Draft Capital and Supplementary Revenue Budgets

46. The latest capital and supplementary revenue project forecast expenditure on approved schemes will be presented to the Court of Common Council for formal approval in March 2019. These schemes are summarised in Appendix 6.

47. Pre-implementation costs comprise feasibility and option appraisal expenditure which has been approved in accordance with the project procedure, prior to authority to start work.

48. It should be noted that the above figures exclude the indicative costs of schemes which have not yet received authority to start work, such as the capital costs of implementing the Holborn/Snow Hill pipe-subways scheme or Bridges' waterproofing projects.

## Appendices

- **Appendix 1** - 2018/19 Latest Local and Central Risk Revenue Budget: Analysis by Service Managed
- **Appendix 2** - 2019/20 Original Local and Central Risk Revenue Budget: Analysis by Service Managed
- **Appendix 3** - Support Services and Capital Charges from/to P&T Committee
- **Appendix 4** – Summary of Charity Trustee's role
- **Appendix 5 –** Bridges Repairs, Maintenance and Major Fund 50 Year Programme
- **Appendix 6 –** Draft Capital and Supplementary Revenue Projects

**Contact Chamberlain's Department**:
**Simon Owen** – simon.owen@cityoflondon.gov.uk
**Dipti Patel** - dipti.patel@cityoflondon.gov.uk

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**APPENDIX 1**

| Analysis by Service Managed | Original Budget 2018-19 £'000 | Latest Budget 2018-19 £'000 | Movement (Increase)/ Decrease £'000 | Para Ref and Notes |
|---|---|---|---|---|
| **CITY FUND** | | | | |
| Town Planning | (2,964) | (2,956) | 8 | |
| Transportation Planning | (1,683) | (1,855) | (172) | (i) |
| Planning Obligations | 0 | 0 | 0 | |
| Road Safety | (532) | (536) | (4) | |
| Street Scene | 0 | 0 | 0 | |
| Building Control | (768) | (783) | (15) | |
| Structural Maintenance/Inspections | (232) | (131) | 101 | (ii) |
| Highways | (10,332) | (8,977) | 1,355 | (iii) |
| Rechargeable Works | 0 | 0 | 0 | |
| Traffic Management | 799 | 794 | (5) | |
| Off-Street Parking | 0 | 0 | 0 | |
| On-Street Parking | 0 | 0 | 0 | |
| Drains & Sewers | (381) | (412) | (31) | |
| Contingency | 92 | (15) | (107) | (iv) |
| **TOTAL** | **(16,001)** | **(14,871)** | **1130** | |
| | | | | |
| **BRIDGE HOUSE ESTATES** | | | | |
| Bridges | (2,329) | (2,546) | (217) | (v) |
| Tower Bridge Operational | (2,311) | (2,411) | (100) | (vi) |
| **TOTAL** | **(4,640)** | **(4,957)** | **(317)** | |
| | | | | |
| **TOTAL P&T** | **(20,641)** | **(19,828)** | **813** | |

**Notes:**

(i) Increased budget due to:
- Shortfall in staff time charged to capital projects due to Strategic Transportation Team whose time is not recoverable due to work on the transport strategy which is not a capital project £290,000
- Increase in support services and Directorate recharge costs £71,000
- Decreased pay costs due to staff vacancies in City Transportation £189,000

(ii) Decreased budget due to:
- Increase in staff time recharged, reflecting increased work completed on highways and bridges structures £88,000
- Salary underspends £13,000

(iii) Decreased budget due to:
- Reduced central recharges mainly relating to reduced highway infrastructure asset depreciation costs £722,000
- Reduced costs due to changes to phasing of the City Surveyor's CWP £709,000
- Increase in transfer from OSPR to fund additional R&M costs £64,000
- Reduced salary costs £17,000
- Increase for approved 2017/18 carry forward budget £29,000 for highways resurfacing
- Increase in R&M maintenance and other running costs £67,000
- Increase in support services, Directorate recharges and Structural Maintenance Team recharges £61,000

(iv) 2018/19 corporate adjustment to Department base budget reallocated back to Divisions of Service to compensate for inflation uplift £107,000

(v) Increased funding contribution of £78,000 from BHE to City Police for policing the bridges and enforcement costs, plus increases in support services, premises insurance and Structural Maintenance Team staff recharges £139,000

(vi) Increased budget due to:
- Increased pay costs £54,000
- Increase in support services, Open Spaces Directorate Team recharges and premises insurance £46,000

**APPENDIX 2**

| Analysis by Service Managed | Original Budget 2018-19 £'000 | Original Budget 2019-20 £'000 | Movement (Increase)/ Decrease £'000 | Para Ref and Notes |
|---|---|---|---|---|
| **CITY FUND** | | | | |
| Town Planning | (2,964) | (2,977) | (13) | |
| Transportation Planning | (1,683) | (1,888) | (205) | (i) |
| Planning Obligations | 0 | 0 | 0 | |
| Road Safety | (532) | (543) | (11) | |
| Street Scene | 0 | (70) | (70) | (ii) |
| Building Control | (768) | (730) | 38 | |
| Structural Maintenance/Inspections | (232) | (129) | 103 | (iii) |
| Highways | (10,332) | (9,306) | 1,026 | (iv) |
| Rechargeable Works | 0 | 0 | 0 | |
| Traffic Management | 799 | 890 | 91 | (v) |
| Off-Street Parking | 0 | 0 | 0 | |
| On-Street Parking | 0 | 0 | 0 | |
| Drains & Sewers | (381) | (389) | (8) | |
| Contingency | 92 | 147 | 55 | (vi) |
| **TOTAL** | **(16,001)** | **(14,995)** | **1,006** | |
| **BRIDGE HOUSE ESTATES** | | | | |
| Bridges | (2,329) | (2,610) | (281) | (vii) |
| Tower Bridge Operational | (2,311) | (2,457) | (146) | (viii) |
| **TOTAL** | **(4,640)** | **(5,067)** | **(427)** | |
| **TOTAL P&T** | **(20,641)** | **(20,062)** | **579** | |

**Notes:**

(i) Increased budget due to:
- Shortfall in staff time charged to capital projects due to Strategic Transportation Team whose time is not recoverable due to work on the transport strategy which is not a capital project £277,000
- Increase in support services and Directorate recharges £31,000
- Reduced employee costs due to staff re-alignments in other Teams £103,000

(ii) Increased budget due to:
- Sculpture in the City costs which is a successful annual outdoor contemporary sculpture exhibition based in the City of London and is in its eighth year. Due to continuing popularity it has become part of the expected City offering. It is a partnership between the City of London Corporation and the private sector and plays an important role in developing relationships and creating an attractive environment for businesses and workers. Up to and including the 2019 exhibition, the City's contribution has been from s106 funding (Supplementary Revenue) which has been exhausted. As the annual exhibition is now part of routine DBE business the cost to the City for the 2020 Exhibition onwards will be met from within existing DBE local risk revenue resources. The estimated budget allocation within the 2019/20 estimates to prepare for the 2020/21 Exhibition (October to March) is £70,000. The City's funding contribution secures funding from private businesses totalling £350,000

(iii) Increase in staff time recharged, reflecting increased work on highways and bridges structures £103,000

(iv) Reduced budget due to:
- Reduced central recharges mainly relating to highway infrastructure asset depreciation costs £1,030,000
- Increase in transfer funding from OSPR to fund additional R&M costs £102,000
- Reductions in various running budget £5,000
- Increased R&M maintenance costs £92,000
- Increased costs due to changes to phasing of City Surveyor's CWP £19,000

(v) Reduced budget due to:
- Additional income from Road Closures and Hoarding & Scaffolding licences £151,000
- Reduced advertising costs £45,000
- Increased pay costs due additional staff employed and pay award increases £96,000
- Increase in support services and Directorate recharges £9,000

(vi) Estimated staff vacancy factor to be achieved for the Department during the year, as vacancies arise

(vii) Increased funding contribution of £78,000 from BHE to City Police for policing the bridge and enforcement costs, plus increases in support services, premises insurance and capital charges £203,000

(viii) Increased budget due to:
- Increased pay costs £46,000 and other running budget increases £19,000
- Increase in IS recharges, Open Spaces Directorate Team recharges and premises insurance £81,000

**APPENDIX 3**

| Support Services & Capital Charges from/to Planning &Transportation Committee | Original Budget 2018/19 £'000 | Latest Budget 2018/19 £000 | Original Budget 2019/20 £000 |
|---|---|---|---|
| **Support Services and Capital Charges** | | | |
| City Surveyor's Employee Recharge | (357) | (359) | (369) |
| Insurance | (807) | (822) | (874) |
| IS Recharges - Chamberlain | (1,171) | (1,249) | (1,163) |
| Capital Charges | (8,148) | (7,268) | (6,879) |
| Admin Buildings | (688) | (646) | (694) |
| Support Services | (1,119) | (1,384) | (1,385) |
| **Total** | **(12,290)** | **(11,728)** | **(11,364)** |
| **Recharges Within Funds** | | | |
| Directorate Recharge – Port Health & Environmental Services Committee | (840) | (1,117) | (997) |
| Corporate and Democratic Core – Finance Committee | 58 | 58 | 58 |
| Tables & Chairs – Licensing Committee | 27 | 27 | 27 |
| **Total** | **(755)** | **(1,032)** | **(912)** |
| **Recharges Across Funds** | | | |
| Directorate Recharge – Open Spaces Committee | (33) | (39) | (55) |
| Policing the Bridges – Police City Fund | (214) | (242) | (242) |
| Structural Mtce - Open spaces – City's Cash | 21 | 37 | 37 |
| Enforcement Costs – City Bridges | 0 | (50) | (50) |
| City's Cash – Policy & Resources - Statues | 1 | 1 | 1 |
| **Total** | **(225)** | **(293)** | **(309)** |
| **TOTAL PLANNING & TRANSPORTATION** | **(13,270)** | **(13,053)** | **(12,585)** |

**Note:** Support Services covers recharges from Chamberlain, Comptroller and City Solicitor, Town Clerk and City Surveyor's departments.

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## Summary of Charity Trustees' role

The City Corporation, acting through the Court of Common Council and committees to which functions of the Bridge House Estates Charity have been delegated, is the sole trustee of the Charity. Therefore all Members of the Court (or those committees) collectively, perform that role. All Charity trustees must always act in the best interests of the Charity and manage any conflicts of interest or loyalty accordingly. When Members of the Court (at the Court itself or across committees) are dealing with business associated with the Charity, they must ensure that the best interests of the Charity are paramount.

The City Corporation, as trustee of Bridge House Estates has the following main duties:-

1. To ensure the charity is carrying out its purposes for the public benefit.
2. To comply with the charity's governing documents and the law.
3. To act in the charity's best interests.
4. To manage the charity's resources responsibly.
5. To act with reasonable care and skill.
6. To ensure the charity is accountable.

The courts have developed principles of trustee decision-making which trustees should be able to show that they have followed. These are that in making decisions about the charity, trustees must:

1. act within their powers (i.e. consistent with the charity's objects and powers.)
2. act in good faith, and only in the interests of the charity.
3. make sure they are sufficiently informed, taking any advice they need.
4. take account of all relevant factors.
5. ignore any irrelevant ones.
6. manage conflicts of interest.
7. make decisions that are within the range of decisions that a reasonable trustee body could make in the circumstances.

While the City Corporation is acting in its general corporate capacity as trustee of Bridge House Estates, the Charity Commission's guidance for Local authorities acting as a charitable Trustee is helpful in providing clarification where an organisation must balance its competing duties and interests (available on their website at : https://www.gov.uk/government/publications/local-authorities-as-charity-trustees ); as is the Charity Commission's Conflicts of Interest Guidance, CC29 (also available on their website at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/343408/CC29-_PDF.pdf )

The report presented to Court of Common Council on 16 January 2014 entitled "The role of the City of London Corporation as Trustee of the Bridge House Estates" clarifies the distinct functions and responsibilities of Committees that conduct business relating to the Charity as they existed at the time, and is listed as a background document to this report.

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## BRIDGES REPAIRS, MAINTENANCE AND MAJOR FUND 50 YEAR PROGRAMME

| Bridge | Category | REVISED 2018/19 | REVISED 2019/20 | REVISED 2020/21 | REVISED 2021/22 | REVISED 2022/23 | REVISED 2023/24 | REVISED 2024/25 | REVISED 2025/26 | REVISED 2026/27 | REVISED 2027/28 | Later Years to 2069 | 50 years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blackfriars | Building main | 1,700 | 1,800 | 102,900 | 1,900 | 1,900 | 1,900 | 1,900 | 3,200 | 1,900 | 1,900 | 158,285 | 279,285 |
| Blackfriars | Floodlighting | 5,100 | 16,600 | 5,000 | 0 | 5,400 | 0 | 0 | 0 | 0 | 5,400 | 1,536,614 | 1,574,114 |
| Blackfriars | Street lighting | 36,600 | 35,700 | 5,700 | 700 | 1,600 | 700 | 700 | 1,700 | 1,600 | 700 | 464,182 | 549,882 |
| Blackfriars | Electrical | 20,800 | 116,000 | 20,500 | 20,500 | 20,500 | 20,500 | 20,500 | 20,500 | 26,000 | 20,500 | 1,300,746 | 1,607,046 |
| Blackfriars | Inspections | 20,700 | 10,200 | 2,000 | 5,000 | 2,000 | 5,000 | 20,500 | 45,000 | 278,700 | 5,000 | 715,965 | 1,110,065 |
| Blackfriars | Painting | 0 | 5,100,000 | 2,500,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,419,956 | 21,019,956 |
| Blackfriars | Civil/Structural | 198,200 | 436,700 | 8,100 | 14,600 | 28,100 | 8,100 | 658,100 | 258,100 | 6,308,100 | 2,308,100 | 11,346,302 | 21,572,502 |
| Blackfriars | Inclinator | 7,100 | 7,100 | 7,000 | 7,000 | 27,000 | 23,000 | 7,000 | 7,000 | 7,000 | 57,000 | 2,782,950 | 2,939,150 |
| **Blackfriars** | **All Categories** | **290,200** | **5,724,100** | **2,651,200** | **49,700** | **86,500** | **59,200** | **708,700** | **335,500** | **6,623,300** | **2,398,600** | **31,725,000** | **50,652,000** |
| Southwark | Building main | 2,900 | 2,600 | 58,900 | 2,600 | 3,700 | 2,600 | 2,900 | 2,900 | 2,600 | 12,600 | 274,711 | 369,011 |
| Southwark | Floodlighting | 13,300 | 0 | 0 | 0 | 0 | 22,400 | 0 | 0 | 0 | 0 | 1,007,706 | 1,043,406 |
| Southwark | Street lighting | 97,500 | 2,600 | 2,500 | 3,500 | 2,500 | 3,400 | 2,500 | 2,500 | 3,500 | 2,500 | 648,637 | 771,637 |
| Southwark | Electrical | 3,800 | 3,900 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 415,848 | 453,948 |
| Southwark | Inspections | 2,000 | 3,700 | 5,000 | 26,000 | 10,000 | 3,600 | 5,000 | 3,600 | 6,500 | 46,000 | 592,708 | 704,108 |
| Southwark | Painting | 0 | 0 | 0 | 100,000 | 500,000 | 0 | 0 | 0 | 0 | 0 | 10,330,777 | 10,930,777 |
| Southwark | Civil/Structural | 6,100 | 6,100 | 606,000 | 1,235,600 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 19,589,687 | 21,479,487 |
| Southwark | Park Street Bridge/approaches | 280,000 | 2,041,000 | 0 | 2,900 | 0 | 1,000 | 0 | 1,000 | 0 | 52,900 | 5,229,825 | 7,608,625 |
| **Southwark** | **All Categories** | **405,600** | **2,059,900** | **676,200** | **1,374,400** | **526,000** | **42,800** | **20,200** | **19,800** | **22,400** | **123,800** | **38,089,900** | **43,361,000** |
| London | Building main | 21,800 | 2,500 | 88,900 | 2,500 | 2,500 | 2,500 | 2,500 | 2,900 | 2,500 | 2,500 | 235,877 | 366,977 |
| London | Floodlighting | 505,000 | 0 | 0 | 0 | 0 | 1,600 | 0 | 0 | 0 | 1,600 | 4,188,914 | 4,697,114 |
| London | Street lighting | 22,300 | 2,000 | 2,000 | 4,100 | 2,000 | 4,100 | 2,000 | 2,000 | 4,100 | 2,000 | 565,183 | 611,783 |
| London | Electrical | 106,300 | 13,500 | 13,200 | 13,200 | 14,400 | 13,200 | 13,200 | 13,200 | 13,200 | 14,400 | 1,056,928 | 1,284,728 |
| London | Inspections | 63,800 | 2,200 | 3,900 | 2,200 | 3,900 | 2,200 | 13,200 | 2,200 | 3,900 | 2,200 | 584,423 | 684,123 |
| London | Access/Lifts | 7,100 | 19,300 | 28,200 | 28,200 | 7,000 | 7,000 | 19,000 | 7,000 | 7,000 | 7,000 | 787,161 | 923,961 |
| London | Civil/Structural | 107,100 | 3,882,100 | 656,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 9,878,851 | 14,566,051 |
| London | Approach Vaults | 0 | 3,600 | 0 | 3,500 | 0 | 9,300 | 0 | 3,500 | 0 | 3,500 | 2,823,618 | 2,847,018 |
| London | Duke St Hill Footbridge | 0 | 5,200 | 0 | 1,000 | 0 | 1,000 | 0 | 5,100 | 0 | 1,000 | 82,946 | 96,246 |
| **London** | **All Categories** | **833,400** | **3,930,400** | **792,200** | **60,700** | **35,800** | **46,900** | **55,900** | **41,900** | **36,700** | **40,200** | **20,203,900** | **26,078,000** |
| Millennium | Building main | 39,500 | 165,700 | 466,300 | 31,400 | 3,300 | 336,200 | 3,300 | 3,300 | 253,300 | 3,300 | 5,583,021 | 6,888,621 |
| Millennium | Floodlighting | 0 | 0 | 0 | 0 | 5,600 | 0 | 0 | 140,000 | 0 | 5,600 | 1,380,789 | 1,531,989 |
| Millennium | Electrical | 7,800 | 67,300 | 7,700 | 7,700 | 7,700 | 7,700 | 7,700 | 7,700 | 7,700 | 7,700 | 1,042,124 | 1,178,824 |
| Millennium | Painting | 0 | 0 | 0 | 0 | 100,000 | 1,400,000 | 0 | 0 | 0 | 0 | 9,160,306 | 10,660,306 |
| Millennium | Inclinator | 53,600 | 37,700 | 47,000 | 37,000 | 137,000 | 837,000 | 53,000 | 37,000 | 37,000 | 37,000 | 8,628,811 | 9,942,111 |
| Millennium | Struct/Inspections | 46,400 | 133,600 | 514,000 | 26,000 | 36,000 | 21,000 | 36,000 | 21,000 | 89,000 | 26,000 | 2,892,149 | 3,841,149 |
| **Millennium** | **All Categories** | **147,300** | **404,300** | **1,035,000** | **102,100** | **289,600** | **2,601,900** | **100,000** | **209,000** | **387,000** | **79,600** | **28,687,200** | **34,043,000** |
| Tower | Building main | 490,000 | 1,792,600 | 483,800 | 245,700 | 189,800 | 695,500 | 250,400 | 352,200 | 293,700 | 286,300 | 35,280,314 | 40,360,314 |
| Tower | Floodlighting | 102,000 | 20,400 | 20,000 | 27,100 | 20,000 | 20,000 | 100,000 | 0 | 7,100 | 0 | 1,720,095 | 2,036,695 |
| Tower | Street lighting | 57,600 | 60,900 | 6,000 | 6,000 | 6,000 | 6,000 | 8,200 | 6,000 | 6,000 | 6,000 | 1,383,210 | 1,551,910 |
| Tower | Electrical | 251,300 | 1,891,400 | 1,070,600 | 1,600 | 1,600 | 22,800 | 45,400 | 1,600 | 1,600 | 31,600 | 4,844,425 | 8,163,925 |
| Tower | Alarms/CCTV | 119,500 | 406,500 | 48,500 | 48,500 | 48,500 | 98,500 | 78,500 | 48,500 | 48,500 | 48,500 | 5,419,573 | 6,413,573 |
| Tower | Inspections | 3,900 | 15,300 | 3,900 | 5,000 | 50,000 | 10,000 | 3,900 | 5,000 | 3,900 | 5,000 | 1,070,437 | 1,176,337 |
| Tower | Lifts/Access | 41,400 | 74,800 | 106,400 | 104,000 | 51,000 | 113,000 | 324,000 | 308,100 | 78,000 | 67,000 | 9,535,072 | 10,802,772 |
| Tower | Heating | 202,000 | 0 | 0 | 25,000 | 25,000 | 0 | 0 | 5,000 | 5,000 | 0 | 6,084,150 | 6,346,150 |
| Tower | Bridge ops sys | 3,700 | 22,000 | 710,200 | 107,700 | 3,700 | 1,600 | 3,700 | 20,200 | 3,700 | 1,600 | 1,229,516 | 2,107,616 |
| Tower | Painting | 0 | 0 | 0 | 50,000 | 200,000 | 1,000,000 | 0 | 0 | 0 | 0 | 22,473,146 | 23,723,146 |
| Tower | Civil/Structural | 60,200 | 8,300 | 558,100 | 8,100 | 8,100 | 8,100 | 8,100 | 8,100 | 8,100 | 24,000 | 10,393,578 | 11,092,778 |
| Tower | Bridge Admin | 139,000 | 140,300 | 137,600 | 137,600 | 137,600 | 147,600 | 137,600 | 137,600 | 137,600 | 137,600 | 10,432,684 | 11,822,784 |
| **Tower** | **All Categories** | **1,470,600** | **4,432,500** | **3,145,100** | **766,300** | **741,300** | **2,123,100** | **959,800** | **892,300** | **593,200** | **607,600** | **109,866,200** | **125,598,000** |
| **Total All Bridges All Categories** | | **3,147,100** | **16,551,200** | **8,299,700** | **2,353,200** | **1,679,200** | **4,873,900** | **1,844,600** | **1,498,500** | **7,662,600** | **3,249,800** | **228,572,200** | **279,732,000** |



**APPENDIX 5**

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**APPENDIX 6**

## Draft Capital & Supplementary Revenue Projects

| Project | Exp. Pre 01/04/18 £'000 | 2018/19 £'000 | 2019/20 £'000 | 2020/21 £'000 | 2021/22 £'000 | 2022/23 £'000 | Later Years £'000 | Total £'000 |
|---|---|---|---|---|---|---|---|---|
| **BRIDGE HOUSE ESTATES** | | | | | | | | |
| Pre-implementation | | | | | | | | |
| River Cameras | | 30 | | | | | | 30 |
| Tower Bridge:<br>- HV system replacement | 8 | 16 | 11 | | | | | 35 |
| Blackfriars Bridge:<br>- Parapet refurbishment | | 50 | | | | | | 50 |
| London Bridge:<br>- Waterproofing | | 84 | | | | | | 84 |
| Southwark Bridge:<br>- Waterproofing | | 14 | | | | | | 14 |
| Park St Bridge:<br>- Waterproofing | | 268 | | | | | | 268 |
| Authority to start work granted | | | | | | | | |
| Tower Bridge: | | | | | | | | |
| - Bascule re-decking | 6,556 | 60 | | | | | | 6,616 |
| - Heating system replacement | 570 | 234 | | | | | | 804 |
| - Relighting | 2,013 | 21 | | | | | | 2,034 |
| **TOTAL BRIDGE HOUSE ESTATES** | **9,147** | **777** | **11** | **0** | **0** | **0** | **0** | **9,935** |

**APPENDIX 6**

| Area | Exp. Pre 01/04/18 £'000 | 2018/19 £'000 | 2019/20 £'000 | 2020/21 £'000 | 2021/22 £'000 | 2022/23 £'000 | Later Years £'000 | Total £'000 |
|---|---|---|---|---|---|---|---|---|
| **CITY FUND** | | | | | | | | |
| Pre-implementation | | | | | | | | |
| Roads | 9 | 53 | 10 | | 35 | | | 107 |
| Cheapside | 37 | 89 | | | | | | 126 |
| Riverside Walks | 240 | 7 | 121 | 35 | | | | 403 |
| Barbican | 312 | 266 | 1,600 | 453 | 620 | | | 3,251 |
| Eastern City cluster | 50 | 51 | | | | | | 101 |
| St Paul's | 191 | 175 | 43 | | | | | 409 |
| West Smithfield | 21 | 9 | | | | | | 30 |
| Fleet Street | 82 | 2 | | | | | | 84 |
| Liverpool Street | 48 | 3 | | | | | | 51 |
| Moorgate | 61 | 19 | | | | | | 80 |
| London Wall car park | | 9 | 3 | | | | | 12 |
| Holborn / Snow Hill pipe subways | 34 | 230 | | | | | | 264 |
| Mansion House Station | 11 | 54 | | | | | | 65 |
| Museum of London | 252 | 209 | 309 | | | | | 770 |
| Temple area traffic review | 31 | 82 | | | | | | 113 |
| Bridges & Structures | 45 | 147 | 421 | | | | | 613 |
| Drinking fountains | | 10 | 20 | | | | | 30 |
| Signage | 125 | 315 | | | | | | 440 |
| Authority to start work granted | | | | | | | | |
| Information technology | 571 | 57 | 45 | 44 | | | | 717 |
| Street lighting | 767 | 1,850 | 1,433 | 202 | | | | 4,252 |
| Roads | 19 | 349 | | | | | | 368 |
| Cheapside | 297 | 50 | | | | | | 347 |
| Riverside Walks | 1,477 | 104 | | | | | | 1,581 |
| Barbican | 2,165 | 2,032 | 170 | | | | | 4,367 |
| Eastern City cluster | 1,447 | 1,846 | 54 | | | | | 3,347 |
| St Paul's | 1,664 | 20 | | | | | | 1,684 |
| West Smithfield | 763 | 3,832 | 1,572 | 611 | | | | 6,778 |
| Fleet Street | 1,965 | 1,575 | 691 | 10 | | | | 4,241 |
| Liverpool Street | 3,523 | 1,471 | 712 | 656 | 303 | | | 6,665 |
| Moorgate | 439 | 474 | 1,414 | 541 | | | | 2,868 |
| Minories car park building | 45 | 400 | | | | | | 445 |
| Security | 196 | 670 | 300 | 100 | | | | 1,266 |
| Aldgate | 21,177 | 2,043 | 102 | | | | | 23,322 |
| Bank | 5,016 | 2,011 | 326 | 65 | 65 | 65 | | 7,548 |
| Cultural hub | 703 | 593 | | | | | | 1,296 |
| Holborn | 1,562 | 1,164 | 644 | | | | | 3,370 |
| **TOTAL CITY FUND** | **45,345** | **22,271** | **9,990** | **2,717** | **1,023** | **65** | **0** | **81,411** |
| **TOTAL PLANNING & TRANSPORTATION** | **54,492** | **23,048** | **10,001** | **2,717** | **1,023** | **65** | **0** | **91,346** |

Points to Note:

- There are 15 Public Lifts/Escalators in the City of London estate. The report below contains details of the 1 public escalator/lifts that were out of service more than 95% of the time.
- The report was created on 6th November 2018 and subsequently since this time the public lifts or escalators may have experienced further breakdowns which will be conveyed in the next report.

| Location | Status as of 06/11/2018 | % of time in service Between 17/10/2018 and 06/11/2018 | Number of times reported Between 17/10/2018 and 06/11/2018 | Period of time Not in Use Between 17/10/2018 and 06/11/2018 | Comments Where the service is less than 95% |
|---|---|---|---|---|---|
| **Speed House SC6459146** | IN SERVICE | 91.5% | 1 | 41 Hrs | 27/10/2018 - The door closer was faulty and making the doors repeatedly open and close due to water ingress. An engineer was called and replaced the required parts and returned the lift to service.<br><br>The lift has also been reported out of service on other occasions during this period but not recognised by the Electronic Monitoring Unit (EMU). Whilst the EMU is working correctly the reoccurring fault of the doors repeatedly opening and closing is not picked up by it. Whilst the fault has been repaired we are discussing with our contractor if the EMU can be altered to pick this up in future.<br><br>Due to its unreliability a project has been brought forward to completely refurbish the lift including addressing the water leaks. Subject to whether planning is required or not this project will either start in February or May 2019.<br><br>In the meantime, daily checks are being made to ensure the lift is in service. |

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| **Committee:** | **Date:** |
|---|---|
| Planning & Transportation Committee | 20th November 2018 |
| **Subject**:<br>Ventilation & Extraction requirements for restaurants/cafes | **Public** |
| **Report of**:<br>Chief Planning Officer | **For Information** |
| **Summary**<br>Members requested a report setting out the controls and standards for the provision of ventilation and extraction systems for restaurants and cafes. The means of extraction for premises are controlled both by the Planning system in dealing with planning applications for new hot food premises and also Environmental Health legislation. Planning applications are considered against the relevant policies of the City of London Local Plan 2015 and Environmental Health assess the impact of extraction equipment against Guidance entitled 'Control of Odour & Noise from Commercial Kitchen Extract Systems.' | |
| **Recommendation**<br><br>For noting | |

## Main Report

### Background

1. Members have raised concerns about the odours being extracted at ground floor level from restaurant and café premises. This report seeks to set out the statutory context for controlling such emissions and explains the approach of the City from a Planning and Environmental Health perspective in dealing with this matter.

### Policy, Guidance and Standards

### Planning

2. The impact of the extraction of fumes from a proposed hot food premises is a material planning consideration and the relevant Planning Policies are set out in the City of London Local Plan 2015.
3. Policy DM 21.3 of the Local Plan seeks to prevent nuisance from odours and states:

   **The amenity of existing residents within identified residential areas will be protected by:**

- **resisting other uses which would cause undue noise disturbance, fumes and smells and vehicle or pedestrian movements likely to cause disturbance;**
- **requiring new development near existing dwellings to demonstrate adequate mitigation measures to address detrimental impact.**

4. Policy DM10.1 relates to the quality of new development and the supporting text states that ventilation or extraction systems should be routed internally and extensive or unsightly external ducting will be resisted. In new development, provision must be made within the building for services and ducting to and from all uses, including retailing and that ventilation louvres should not be sited adjoining footways.

**Environmental Health**

5. Environmental Health investigate statutory nuisance arising from odour and noise using Environmental Protection legislation. The threshold for statutory nuisance is high.
6. DEFRA guidance is clear that where appropriate control of noise and odour from commercial kitchens is better done through the planning process (that is, by 'planning out' potential problems) than through the statutory nuisance process (that is, by responding to reports of problems).
7. Environmental Health therefore advises on the impact of extraction equipment via the planning application process in order to protect the amenity of neighbouring premises.

**The City's approach**

8. For any planning application proposing a hot food premises, details of the means of extraction will need to be approved. At the outset the presumption will be that the proposal should incorporate high level discharge and that anything extracting at lower levels would be an exception and would need to be fully justified. In most cases the final details are secured by way of a condition on any planning permission where the following standard condition is used:

   **Before any works thereby affected are begun, a scheme shall be submitted to and approved in writing by the Local Planning Authority which specifies the fume extract arrangements, materials and construction methods to be used to avoid noise and/or odour penetration to the upper floors from the Class A use. Flues must terminate at roof level or an agreed high level location which will not give rise to nuisance to other occupiers of the building or adjacent buildings. The details approved must be implemented before the Class A use takes place.**

9. The Pollution Control Team will assess the details. Until September 2017 odour control was assessed using national guidance commissioned by DEFRA; The NETCEN "Control of Odour and Noise from Commercial Kitchen Exhaust Systems". At which point DEFRA withdrew the guidance deeming it 'outdated'.
10. DEFRA have not replaced it but following their decision it has been revised and updated by EMAQ+, an organisation providing professional development training and technical guidance to local authorities (Appendix 1).

11. The design of an odour control system needs to address two phases of contamination in any 'kitchen' exhaust; particulate (grease, smoke, hydrocarbons/VOCs) and gaseous (odour). The design requires an adequate level of particulate and odour control but also stack dispersion. Overall performance will be based on the arrestment plant and where the system discharges. As a rule, the more complicated the arrestment plant the more onerous the future maintenance (required to ensure it continues to work effectively).
12. Dispersion through stacks increases initial atmospheric mixing and spread. Stacks are inherently simple and in effect this simplicity provides a reliable and lower input method of mitigating odour with less maintenance and management. Well-designed stack dispersion can even allow for some short-term reduction in the performance of any odour abatement plant.
13. For these reasons high-level dispersion is always advocated where practicable. Optimising stack height and dispersion arrangements should be one of the first design decisions.
14. Where suitable high-level dispersion is not possible a much higher level of odour abatement plant will be required; this is likely to be expensive and require a significant commitment to ongoing maintenance.

## Enforcement

### Planning

15. The only circumstances where an enforcement investigation under planning legislation would occur would be as a result of the installation of plant and extraction equipment without the benefit of planning permission or where the equipment installed is not in accordance with the details approved under the relevant planning permission. The remedy could be a range of options, including:
    - Removal of the unauthorised equipment
    - the submission and approval of a retrospective planning application, or
    - the serving of a Breach of Condition Notice or an Enforcement Notice

### Environmental Health

16. Odour can constitute a statutory nuisance. Section 79 Environmental Protection Act 1990 lists matters that may constitute a Statutory Nuisance which includes
17. "any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance"
18. This legislation would therefore control odour from restaurants and commercial kitchens. Environmental Health will investigate any complaint and in the event of a nuisance or prejudicial to health being substantiated, have the power to serve notice under Section 80 of the above Act to require works to be undertaken to abate the nuisance. Importantly Environmental Health must consider a range of issues when considering action. To substantiate a nuisance, it must be established that the effect of the odour is significant, this will be a balance of matters such as strength of odour, duration and frequency. In addition, the operator has a statutory defence that they are operating to "Best Practicable Means" this will require the operator to show that they have taken

reasonable steps to minimise the odour from the premises. This includes having regard among other things to local conditions and circumstances, the current state of technical knowledge and to the financial implications. The means to be employed include the design, installation, maintenance and manner and periods of operation of plant and machinery, and the design, construction and maintenance of buildings and structures.

19. In reality nuisance action in these cases is a method of last resort, it is much more efficient and provides a much more effective result in ensuring the correct mitigation measures are installed at the outset. Installing the correct plant at the outset also mitigates against future nuisance when further development takes place adjacent to such premises.

Annie Hampson
Chief Planning Officer and Development Director

T: 020 7332 1700
E: annie.hampson@cityoflondon.gov.uk

***Appendix 1***

*Control of Odour and Noise from Commercial Kitchen Exhaust Systems – EMAQ+*

EMAQ+
Training and Technical Guidance from the Experts

# Control of Odour and Noise from Commercial Kitchen Exhaust Systems

Update to the 2004 report prepared by NETCEN for the Department for Environment, Food and Rural Affairs



Dr Nigel Gibson
5-9-2018

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EMAQ+
The Gemini Building
Fermi Avenue
Harwell IBC
Harwell
Didcot
OXON,OX11 0QR

Telephone: 01235 753620
Email: emaq@ricardo.com

# Foreword

*Local Authorities, commercial kitchen designers and commercial kitchen operators have a vested interest in ensuring that appropriate equipment and techniques are employed to minimise the impact of these activities. Until September 2017 stakeholder were able to rely on the original version of the "Control of Odour and Noise from Commercial Kitchen Exhaust Systems" report, at which point Defra determined that the original published in 2005 was out of date and the guidance was 'withdrawn'.*

*Following Defra's decision to change the status of the original report, EMAQ decided to survey its local authority subscribers to evaluate whether the 2005 report was still relied upon. Of the survey responses received*

- *over 97% of subscribers used the 2005 report.*
- *over 96% of subscribers found the 2005 report useful.*
- *Over 83% of subscribers were aware that the 2005 report had been withdrawn*
- *About 7% of subscribers had taken steps to issue their own guidance*
- *Over 83% of subscribers were in favour of revising and updating the guidance*

*On the basis of the survey responses we took the decision to amend the 2005 report to ensure that the up-to-date technical guidance remained available to our subscribers. In preparing this amended document we applied the following editorial philosophy:*

- *We would rely on the original report structure and text as far as possible. The original document focused around English interpretation of relevant laws and regulations. This has continued in the amendment, however principles embodied in this document could be employed elsewhere.*
- *Where material in the original report was out of date and could not be replicated with more recent data, the original material would be removed.*
- *We would update any reference to latest legislation, standard and other technical material.*
- *We would take into account changes in cooking methods e.g. move toward wood fired cookers.*
- *Where material is available we would include additional 'case study' material to support the use of the guidance*

***Changes made to the original document have been highlighted in italics.***

*As experience of using the Guidance develops, and as further improvement relating to pollution control from commercial kitchen become available, it is anticipated that revisions of this document will become necessary. EMAQ is particularly keen to hear of examples of good assessment and design practice in this area so they can be incorporated in future versions of this document. All comments and further information in relation to this topic should be sent to emaq@ricardo.com.*

*The EMAQ document aims to be the authoritative voice for the provision of technical guidance on various aspects of pollution management by maintaining, enhancing and promoting the highest standards of working practices in the field and for the professional development of those who undertake this work. Membership of EMAQ is mainly drawn from Local Authority professionals working within the fields of pollution science, pollution assessment and pollution management.*



Dr Nigel Gibson

# Best Practice for Design and Operation of Commercial Kitchen Ventilation Systems: Performance Requirements

**Minimum Ventilation Rates**

- An internal ambient air temperature of 28°C maximum
- Maximum humidity levels of 70%
- Internal noise level should be between NR40 – NR50
- Dedicated make up air system to be approximately 85% of the extract flow rate
- Minimum air change rate of 40 per hour (bases on canopy and general room extraction)
- *Extract flow rates for a commercial kitchen should be calculated using the thermal convection method only, as this overcomes heat and odour variation between different types of cooking appliances. Other less reliable methods remain available.*

**Minimum Requirements for Canopy**

**Velocity requirements:**

- Light loading – 0.25 m/s (applies to steaming ovens, boiling pans, bain maries and stock pot stoves)
- Medium loading – 0.35 m/s (applies to deep fat fryers, bratt pans solid and open top ranges and griddles)
- Heavy loading – 0.5 m/s (applies to chargrills, mesquite and specialist broiler units)

**Sizing:**

- *Ideally, the plan dimensions of the canopy shall always exceed the plan dimensions of the catering equipment by a minimum of 250 mm on each free side*
- *This should be increased to 600 mm in front of combination steaming ovens to cope with the steam or fumes released when the doors of the appliance are opened. Solid fuel appliances must have an overhang of 300 mm from the door open position*

**Materials:**

- A material that would comply with the food hygiene requirement is stainless steel

**Grease Separation:**

- *The grease extracted by the separators shall be collected and removed so that it will not accumulate in either the canopy plenum or the ductwork system, or fall back onto the cooking surface*
- *The separator shall be constructed so that there are no sharp edges or projections and shall be easily removable for regular cleaning*
- *Primary filters that retain grease within the filtration matrix until cleaned, shall not be used (not to be confused with those designed with purpose made integral collection reservoirs)*

**Minimum Requirements for Duct Work**

- All duct work should be Low Pressure Class 'A' and constructed in accordance with BESA Specification DW/144 with a minimum thickness of 0.8 mm
- Duct velocities should be as follows:

| | Supply (m/s) | Extract (m/s) |
|---|---|---|
| Main runs | 6 – 8 | 6 – 9 |
| Branch runs | 4 – 6 | 5 – 7 |
| Spigots | 3 – 5 | 5 – 7 |

- All internal surfaces of the ductwork should be accessible for cleaning and inspection. Access panels should be installed at 2.0 m centres and should be grease tight using a heat proof gasket or sealant
- Duct work should not pass through fire barriers
- Where it is not possible to immediately discharge the captured air, fire rated duct work may be required

**Minimum Requirements for Fans**

Fans should be selected to handle the design resistance with an additional 10% airflow and 20% pressure margin allowed to suit possible extensions to the original kitchen plan.

Backward curved centrifugal, mixed flow or axial flow impellers are preferred as they are less prone to unbalance and are more easily maintained and cleaned due to their open construction. Fixed or adjustable metal impellers with a robust and open construction shall be used,

*Care shall always be taken with the location of the supply and extract fans to ensure that there is sufficient space for regular cleaning and maintenance. Limited space shall not restrict selection of the correct fan.*

Drain holes should be fitted.

*For fans serving canopies above solid fuel burning appliances, the motor must be out of the airstream and impellers must have metal blades.*

**Minimum Requirements for Odour Control**

Objectives

- for new premises or premises covered by planning conditions restricting the impact of odour the system shall be designed to prevent harm to the amenity.
- for existing premises not covered by planning conditions restricting the impact of odour, the system shall be designed to avoid statutory nuisance and shall comply with the principles of Best Practical Means.
- *The design of a control system should recognise that there are two phases of contamination in a kitchen exhaust; particulate (grease, smoke, hydrocarbons/VOC) and gaseous (odour). The particulate phase needs to be removed prior to dealing with the gaseous phase.*

To achieve these objectives the odour control system shall include an adequate level of:

1. *Particulate and* odour control; and
2. stack dispersion.

The overall performance of the odour abatement system will represent a balance of 1 and 2.



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**Discharge stack**

The discharge stack shall:

1. Discharge the extracted air not less than 1 m above the roof ridge of any building within *15* m of the *vent serving* the commercial kitchen*. Additional odour control measures may still be required depending on the cooking type and frequency.*
2. If 1 cannot be complied with for planning reasons, then the extracted air shall be discharged not less than 1 m above the roof eaves or dormer window of the building housing the commercial kitchen. *A higher level of odour control measures than those required in part 1 may be required.*
3. If 1 or 2 cannot be complied with for planning reasons, then *higher level of odour control measures than those required in part 1 or 2 may be required*.

**Odour arrestment plant performance**

Low to medium level control may include:

1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.1 second residence time).
2. Fine filtration followed by counteractant/neutralising system to achieve the same level of control as 1.

High level odour control may include:

1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.2 - 0.4 second residence time).
2. Fine filtration or ESP followed by UV ozone system to achieve the same level of control as 1.

Very high level of odour control may include:

1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.4 – 0.8 second residence time).
2. Fine filtration or ESP followed by carbon filtration and by counteractant/neutralising system to achieve the same level of control as 1.
3. Fine filtration or ESP followed by UV ozone system to achieve the same level of control as 1.

*In some instances where very high levels of control are required combinations or sacrificial levels of filtration may be employed.*

Maintenance must be carried out to ensure these performance levels are always achieved.

**Minimum Requirements for Noise Control**

For new premises or premises covered by planning conditions restricting the impact of noise the system shall be designed to prevent an acoustic impact on the external environment and therefore harm to the amenity, as well as ensuring that noise exposure of kitchen staff does not constitute an occupational noise problem (see Control of Noise at Work Regulations 2005).

For existing premises not covered by planning conditions restricting the impact of noise, the system shall be designed to avoid statutory nuisance and shall comply with the principles of Best Practicable Means.

To achieve these objectives the noise control system shall include:

- control of noise at source to the greatest extent possible; and
- control of noise to the environment by taking acoustic considerations into account within duct, grille and termination design.

The control system should meet the requirements laid down in *BS4142: 2014* "Method for Rating and assessing industrial and commercial sound" or local standards where they exist (whichever is more appropriate).

*Where in-line attenuators are used they shall be constructed so that there is no grease impregnation into the acoustic media. A protective membrane shall be specified for this purpose or this will reduce the design performance of the attenuator. This should be taken into account when selection is made.*

*It may be necessary to apply additional acoustic controls such as in line silencer or splitter attenuator after grease removal stages. Care should be taken to ensure that all such elements are capable of being accessed for cleansing purposes.*

**Minimum Requirements for Fire Suppression**

Proprietors of commercial kitchens are under a duty to ensure that the fire precautions meet the requirements of *The Regulatory Reform (Fire Safety) order 2005.*

***Minimum Requirements for Wood Burning Appliances***

*When serving a canopy above a wood burning appliance, the complete extract ductwork system shall be:*

- *Manufactured from stainless steel*
- *Constructed to DW/144 specification*
- *Have a minimum of 2-hour fire rating, tested and assessed to the latest version of BS476 part 24*

*Surface temperatures can reach in excess of 250°C so in these instances, in accordance with Building Control, the ductwork should be insulated to avoid heat transfer to adjacent combustible materials.*

*Solid Fuel Appliances should be considered separately when designing a safe and effective ventilation/control system.*

**Maintenance**

Proprietors of commercial kitchens have a duty to ensure that the ventilation system serving their kitchen are maintained and operated effectively. Good maintenance is a prerequisite for ensuring that a system complies with Best Practicable Means under statutory nuisance provision and will form a key element of any scheme designed to minimise harm to the amenity under planning regulation. Good maintenance is required by the food hygiene regulations and will also minimise the risk of fire *and minimise noise*. The recommended cleaning period for grease extract system ductwork is:

| Grease loading | | Daily usages | Cleaning interval (months |
|---|---|---|---|
| *Heavy use* | *Heavy/continuous grease production* | *6 – 12 hours*<br>*12 -16 hours* | *3-6 months*<br>*2-3 months* |
| *Moderate use* | *Moderate grease production* | *6 – 12 hours*<br>*12 -16 hours* | *6-12 months*<br>*3-4 months* |
| *Light use* | *No significant grease production* | *6 – 12 hours*<br>*12 -16 hours* | *12 months*<br>*6 months* |



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**Recommendations for maintenance of odour control system include:**

- System employing fine filtration and carbon filtration
  - Change fine filters every two weeks
  - Change carbon filters every 4 to 6 months
- Use a system employing ESP and other in line abatement, typically
  - *ESP systems cleaned, and sump emptied on a four weekly basis.*
  - *UV-C systems used in line, cleaned on a four weekly basis*
  - *Side Stream UV-C systems, cleaned every 3 to 6 months.*
  - *Carbon filters with ESP pre-treatment change carbon filter every 6 to 12 months.*

*These time frames may increase or reduce for extreme or very light applications.*

# Abbreviations Used

| | |
|---|---|
| BCO | Building Control Officer |
| *BESA* | *Building Engineering Services Association* |
| BS | British Standard |
| BSRIA | Building Services Research and Information Association |
| CIBSE | Chartered Institution of Building Services Engineers |
| CIEH | Chartered Institution of Environmental Health |
| Defra | Department for Environment, Food and Rural Affairs |
| EHO | Environmental Health Officer |
| ESP | Electrostatic precipitator |
| HSE | Health and Safety Executive |
| HVAC | Heating, Ventilation and Air Conditioning |
| PO | Planning Officer |
| UV | Ultra Violet |
| *VOC* | *Volatile organic carbon* |



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# Glossary of Terms

| | |
|---|---|
| **ACCESS DOOR** | A door providing access for maintenance or inspection purposes. |
| **AIR CONDITIONING** | A form of air treatment whereby temperature, humidity, ventilation, and air cleanliness are all controlled within limits determined by the requirements of the air-conditioned space. |
| **AIR DIFFUSER** | A supply air terminal device usually placed in the ceiling and generally of circular, square or rectangular shape composed of divergent deflecting parts. |
| **AIR FILTER** | A mechanical device for removing particulate contaminants from an air stream. |
| **AIR HANDLING UNIT** | The assembly of air treatment equipment within one casing. It may include filters, fans, humidifier, cooler battery and associated controls. |
| ***BAG FILTER*** | *A filter with varying degrees of efficiency categorised by Eurovent as typically M5 to M6 and F7 to F9.* |
| **BALANCING** | The process of adjusting the rates of air flow to achieve specified values. |
| **CARBON FILTER** | An air cleaning device, normally using activated carbon for removing gaseous chemicals. |
| **CASSETTE UNIT** | A type of split packaged air conditioning unit in which the internal unit is mounted in the ceiling (recessed into the ceiling void). |
| **COIL** | A heat-exchanging battery made of tubing formed into a compact shape by spiral or serpentine configuration. |
| **DAMPER** | A blade or set of blades that can be moved within a duct in order to control air flow rate. |
| **DETERGENT** | A cleansing agent, which may be solvent or water based, for removing dirt. |
| **DIRT** | Dry dust and debris |
| **DIRT TRAPS** | Those parts of the system prone to heavy dirt accumulation. |
| **DISINFECTION** | A process to reduce microorganisms to an acceptable level. |
| **DUCT** | An enclosure of any cross-sectional shape, but generally circular or rectangular, through which air can flow. |
| **DUCTWORK** | A system of ducts for distribution or extraction of air. |
| ***ELECTROSTATIC PRECIPITATOR (ESP)*** | *A high efficiency filter using electrical charge to remove and trap grease and smoke.* |
| **EXHAUST HOOD OR CANOPY** | A hood associated with an extract system into which contaminated air and entrained solid particles are accelerated. |
| **FAN** | A rotary machine for propelling air or gas. |
| **FINE FILTER** | A particulate/grease filter normally located after a grease filter, is usually present to protect a carbon filter or ESP. |

| | |
|---|---|
| **FIRE DAMPER** | A mobile closure within a duct, which is operated automatically or manually and is designed to prevent the passage of fire. |
| **FUNGI** | Plants without chlorophyll, including moulds and mildew. |
| **FUSIBLE LINK** | A safety device having a low temperature melting point release mechanism. |
| **GREASE FILTER** | A washable filter normally located within the hood over kitchen appliances. |
| **GRILLE** | A mesh or lattice entry or termination fitted to a duct. |
| **HAZARD** | A situation or source of potential harm, which if realised, could result in injury or ill health to humans, or damage to the natural or built environment. |
| **HEPA AIR FILTER** | High Efficiency Particulate Arrestance filter. |
| ***PANEL FILTER*** | *A filter with varying degrees of efficiency categorised by Eurovent as typically G1 to G4* |
| **PATHOGEN** | Any disease-producing microorganism. |
| **PLENUM** | A void forming part of the air distribution system. |
| ***UV-c IN THE CANOPY*** | *An arrangement of UV lamps emitting c band radiation and Ozone in the kitchen extract canopy.* |
| ***UV-c IN LINE*** | *A device employing UV lamps emitting c band radiation and Ozone fitted in line in the ducting after ESP or fine filtration.* |
| ***UV-c SIDE STREAM*** | *A device employing UV lamps emitting c band radiation and Ozone fitted externally (in clean air) from the air stream injecting into the ducting.* |

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# 1 Introduction

## 1.1 Preamble

Problems associated with nuisance odour and noise emissions from commercial kitchen exhausts are very common, particularly in urban areas where housing may be adjacent to or even immediately above catering premises. These premises might include pubs, clubs, restaurants and takeaways that may be open until the early hours of the morning.

Responsibility for the enforcement of statutory controls available to Local Authorities is shared between a number of regulatory functions;

- An authority's Building Control Officer would usually handle building Regulation requirements relating to the structural safety of installations such as high exhaust flues;
- Planning issues relating to new premises, and to the acceptability and positioning of new ventilation systems that involve the provision of a large flue, are likely to require planning consent, the application for which would be submitted to the Local Planning Authority;
- Environmental Health Officers/*Technical Officers* providing advice on the odour and noise control aspects of any planning application to the Planning Officers; and
- Environmental Health Officers/Technical Officers would deal with any complaints of statutory nuisance arising from the smell or noise of a kitchen extraction system.

Many kitchen extraction systems are well designed, well maintained and seldom cause nuisance problems. Others can provide a significant and recurring source of nuisance. Currently, there is little advice available to the enforcing officers on what measures may constitute best practicable means for abating the nuisance. Apart from the statutory nuisance aspects, kitchen exhaust system design may also:

- influence the work place environment where temperature, *pollutant exposure* and fume control is important; or
- have fire safety and hygiene implications where systems are poorly maintained.

*This guidance document is a revised and updated version of the original document,* originally prepared by Netcen, an operating division of AEA Technology, for Defra, and through it the Devolved Administrations of the Scottish Executive, the National Assembly for Wales, and the Department of the Environment in Northern Ireland to provide clear guidance to the regulation process.

***Amendments made to the original text are highlighted in italics.***

## 1.2 Report Structure

This report is structured as follows:

**Best Practice Guide** summarises the best practice for the design and operation of commercial kitchen ventilation systems and the control of grease, odour and noise emissions.

**Section 2** provides:

- a brief overview of odour and noise, illustrating why these parameters can be annoying to members of the public living in the vicinity of commercial kitchens;
- an indication of the composition of the emissions arising from commercial kitchens and types of cooking which can cause odour;
- an indication of the sources of noise from a commercial kitchen; and
- the findings of a survey of Local Authority Officers.

**Section 3** provides an overview of the roles of key Local Authority Officers who deal with proposed and existing kitchens. The overview summarises the legislative tools available for regulating and setting standards for commercial kitchen design and operation.



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**Section 4** reviews the range of ventilation systems available, identifying the types of equipment available for the kitchen extraction system through to the control of grease, odour and noise emissions. The review also includes a cost benefit appraisal of remediation measures.

**Section 5** presents a practical guide for maintaining kitchen ventilation systems and the associated control equipment.

This report relates to ventilation/extraction systems in all types of premises where hot food is prepared for immediate consumption (other than reheating in microwave ovens).

The views expressed in the *original or amended guidance* were/are not necessarily those of the *organisation commissioning the work*. Its officers, servants or agents accept no liability whatsoever for any loss or damage arising from the interpretation or use of the information, or reliance upon the views contained herein.

All references to regulations, standards and guidelines relate to that current at the time of publication. The reader should ensure that they are in possession of the most recent advice when using this document.



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# 2 Background

## 2.1 Odour

***Technical reference material on background to odour:***

*Defra, Odour Guidance for Local Authorities (March 2010). [Withdrawn September 2017]*

*Environment Agency, "H4 Odour Management" (March 2011).*

*SEPA, "Odour Guidance" (January 2010).*

*Institute of Air Quality Management "Guidance on the assessment of odour for planning" (April 2014)*

### 2.1.1 Odour and nuisance

Objectionable and offensive odours can cause significant adverse effects on people's lives and wellbeing. In the original guidance reference was made to the results of a CIEH which indicated that:

- *Odour complaints were received at a rate of about 350 per million population;*
- *There were about 4000 to 5000 premises subject to complaint;*
- *On this basis abatement notices were served on a small number of premises that were subject to complaint;*
- *Where prosecutions were taken these were generally successful.*

*The authors of this revised guidance have no reason to believe that this position illustrated by the CIEH data set has changed.*

*More recent data on statutory nuisance complaints in Scotland found that 43,222 complaints were received by Scottish Authorities between August 2016 and July 2017. Of this total 5% of complaints were related to air pollution (including odour).*[1]

*It is anticipated that odour problems associated with commercial kitchens will form only a small proportion of the complaints received but will form a significant proportion of the 'premises subject to complaint'.*

### 2.1.2 What is odour?

Odour is perceived by our brain in response to chemicals present in the air we breathe. Odour is the effect that those chemicals have upon us. Humans have sensitive senses of smell and they can detect odour even when chemicals are present in very low concentrations.

Most odours are a mixture of many chemicals that interact to produce what we detect as an odour. Odour-free air contains no odorous chemicals whilst fresh air is usually perceived as being air that contains no chemicals or contaminants that could cause harm, or air that smells "clean". Fresh air may contain some odour, but these odours will usually be pleasant in character such as the smell of freshly mown grass or sea spray.

Different life experiences and natural variation in the population can result in different sensations and emotional responses by individuals to the same odorous compounds. Because the response to odour is synthesised in our brain, other senses such as sight and taste, and even our upbringing, can influence our perception of odour and whether we find it acceptable, objectionable or offensive.

### 2.1.3 Attributes of odour

There are four interlinked (sensory) characteristics that are used to describe an odorous emission. These are as follows:

1. **Hedonic tone** is a judgement of the relative pleasantness or unpleasantness of an odour made by assessors in an odour panel. Outside of a laboratory setting this parameter can be subject to substantial variation between individuals. Some odours may be pleasant when weak but unpleasant when strong, or when exposure is frequent.

[1] https://www.rehis.com/story/over-100-statutory-nuisance-complaints-day-scotland-research-reveals [accessed on 10 August 2018)

2. **Quality/Characteristic** is a qualitative attribute, which is expressed in terms of "descriptors" (e.g. "oily", "greasy" or "spicy"). This can be of use when establishing an odour source from complainants' descriptions. Alternatively, it may be possible to identify key chemical components by a description of their specific odour.
3. **Concentration** is the "amount" of odour present in a sample of air. It is usually expressed in terms of odour units per cubic metre and is determined using dynamic dilution olfactometry.
4. **Intensity** may vary between faint to strong. Perceived intensity is the magnitude (strength) of perception of an odour. Increases or decreases in concentration of an odour do not always produce a corresponding proportional change in the odour strength as perceived by the human nose. This can be important for control where an odour has a strong intensity at low concentration as even a low residual odour may cause odour problems.

Odour quality, hedonic tone and concentration influence the perceived odour intensity (and potential for annoyance), although the response to a particular odour will vary between individuals.

### 2.1.4 Effects of odour

The main concern with odour is its ability to cause an effect that could be considered 'objectionable or offensive'. An objectionable or offensive effect can occur where an odorous compound is present in very low concentrations, usually far less than the concentration that could cause adverse effects on the physical health of humans or impacts on any other part of the environment.

Effects that have been reported by people include nausea, headaches, retching, difficulty breathing, frustration, annoyance, depression, stress, tearfulness, reduced appetite, being woken in the night and embarrassment in front of visitors. All of these contribute to a reduced quality of life for the individuals who are exposed.

### 2.1.5 Physical properties and odour perception

How an odour is perceived, and its subsequent effects are not straightforward. The human perception of odour is governed by complex relationships and its properties need to be considered when assessing potential odour effects.

The perception of the intensity of odour in relation to the odour concentration is not a linear but a logarithmic relationship. This means that if the concentration of an odour increases tenfold, the perceived increase in intensity will be by a much smaller amount.

Interactions between mixtures of odorous compounds can also occur. These are known as synergistic effects. An example of a synergistic effect is where one odorous compound disguises or masks the presence of other compounds. As the odour concentration reduces through dilution the nature of the odour may change as different compounds dominate the effect. For example, certain emissions treated with incorrect levels of odour counteracting agents has been observed to have distinctly different odour characteristics at source than when diluted downwind. The odour intensity experienced by an observer is, in general, not equivalent to the sum of the intensities of the component odorous compounds. The perceived intensity may be greater or less than the components depending on the synergistic effects of the compounds present.

Exposure to an odour can result in people becoming desensitised so that they can no longer detect the odour even though the odorous chemical is constantly present in the air. This is sometimes known as olfactory fatigue. For example, people working in an environment with a persistent odour are often unaware of its presence and may not be aware if the odour is having an impact on the surrounding community.

### 2.1.6 Factors that influence magnitude of an odour problem

Factors that influence the control of odour from commercial kitchens include:

**Size of the cooking facility:** This influences the intensity of the odour and volume of ventilation air to be handled.

**Type of food prepared:** This affects the chemical constituents within the ventilation air.

**Type of cooking appliances used:** This dictates the level of fat, water droplets and temperature within the ventilation air.

### 2.1.7 Characteristics of different food types and cooking appliances

The odour, grease and *smoke* characteristics from a range of commercial kitchen types are summarised in Table 1. Table 2 summarises the grease and moisture characteristics anticipated from a range of kitchen appliances.

**Table 1: Odour and grease characteristics arising from a range of commercial kitchens**

| | | Odour Potential[1] | | | | Grease Content | | | | *Smoke Content* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Catering Establishment | Description | Low | Moderate | High | Very High | Low | Moderate | High | Very high | *Low* | *Moderate* | *High* | *Very high* |
| Tea shop | | □ | | | | □ | | | | □ | | | |
| Café serving all day breakfasts | Oil, cooking meat | | □ | | | | | □ | | | □ | | |
| Pizza restaurant gas or electric cooking | Herb | | □ | | | | □ | | | □ | | | |
| *Pizza Restaurant wood fired cooking* | *Herbs / garlic / wood* | | | □ | | | □ | | | | | □ | |
| Steakhouses | Fat | | □ | | | | □ | | | | | □ | |
| French | Herbs/garlic | | □ | | | | □ | | | | □ | | |
| Italian | Herbs/garlic | | □ | | | | □ | | | | | □ | |
| Most pubs | Fat | | □ | | | | □ | | | | □ | | |
| Chinese | Ginger, spices, oil | | □ | | | | | □ | | | □ | | |
| Japanese | Spices, oil | | □ | | | | | □ | | | □ | | |
| Cantonese | Spices, oil | | □ | | | | | □ | | | □ | | |
| Indian | Spices, oil | | | □ | | | | □ | | | □ | | |
| Thai | Spices, oil | | | □ | | | | □ | | | | □ | |
| *Turkish Restaurant* | *Fat, cooking meat, spices* | | | □ | | | | □ | | | | | □ |
| Vietnamese | Spices, oil | | | □ | | | | □ | | | □ | | |
| Kebab houses | Fat, cooking meat | | | □ | | | | □ | | | | | □ |
| Fried chicken | Oil, cooking meat | | | | □ | | | | □ | | □ | | |
| Pubs (large turnover of deep-fried food) | Oil, cooking meat | | | | □ | | | | □ | | □ | | |
| Fish and chips | Oil, | | | | □ | | | | □ | □ | | | |
| Fast food/burger | Oil, cooking meat | | | | □ | | | | □ | | □ | | |
| *Casual Dining – Burgers/ Chicken* | *Fat, cooking meat, spices* | | | □ | | | | □ | | | | | □ |

*Note (1) the odour potential is made up of the odour concentration and a measure of its annoyance potential*

**Table 2: Moisture and grease/smoke characteristics of various cooking appliances**

| | Particulate (Grease/Smoke) Loading | | | Moisture Content | | |
|---|---|---|---|---|---|---|
| Cooking Appliance | Light | Medium | Heavy | Light | Medium | Heavy |
| Cooking pots | □ | | | | | □ |
| Bain Maries | □ | | | | | □ |
| Steam ovens | □ | | | | | □ |
| Pizza ovens | | □ | | | □ | |
| Bratt pans | | □ | | | | □ |
| Oven ranges | | □ | | | □ | |
| Flat top grills | | □ | | | □ | |
| Chip fryers | | □ | | | □ | |
| Salamanders | | □ | | | □ | |
| Charcoal | | | □ | | □ | |
| Gas fired open grills | | | □ | | □ | |
| Char broilers | | | □ | | □ | |
| Chinese wok ranges | | | □ | | | □ |
| *Smokers* | | | □ | | □ | |
| *Wood Fired Pizza Ovens* | | | □ | □ | | |



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## 2.2 Noise

***Technical reference material on background to noise:***

*British Standard 4142:2014*

*British Standard 8233:2014*

*Environment Agency, "H3 (part 2) Horizontal Guidance for Noise Part 2 – Noise Assessment and Control (2004)*

*Institute of Acoustics The science of sound*

*ISO 5136 Determination of sound power radiated into a duct by fans and other air-moving devices in-duct method*

*ISO 5801:2017(en) Fans — Performance testing using standardized airways*

*ISO 10302 "Acoustics -- Measurement of airborne noise emitted and structure-borne vibration induced by small air-moving devices -- Part 2: Structure-borne vibration measurements"*

*ISO 13347 "Industrial fans -- Determination of fan sound power levels under standardized laboratory conditions -- Part 3: Enveloping surface methods"*

*World Health Organisation Guidelines on Community Noise 1999*

*World Health Organisation Night Noise Guidelines for Europe 2009*

*Noise at Work Regulations 2005*

*Specific Local Planning Guidance & Standards (e.g. Supplementary Planning Documents, Planning Advice Notes, Technical Advice Notes)*

### 2.2.1 Noise and nuisance

Noise is one of the main environmental problems in Europe, potentially affecting people's health and behaviour. Noise is generated by several types of source such as transport, indoor and outdoor equipment and industrial activity. In the case of commercial kitchens, the noise generated by them can affect employees and the surrounding neighbourhood. Information on the noise nuisance from commercial kitchens is limited.

*In the original guidance reference was made to the results of a CIEH survey relating to noise attributed to commercial/leisure activities which indicated that:*

- *Noise complaints were received at a rate to about 1,000 per million population;*
- *There were about 32,000 sources subject to complaint, of which about 15% of sources were confirmed to be a nuisance;*
- *Abatement notices were served in about 30% of confirmed nuisance*
- *Prosecutions were taken in about 10% of abatement notices*
- *Where prosecutions were taken these were generally successful*

*The authors of this revised guidance have no reason to believe that this position has changed.*

*More recent data on statutory nuisance complaints in Scotland found that 43,222 complaints were received by Scottish Authorities between August 2016 and July 2017. Of this total 51% of complaints were related to noise).*[2]

*It is anticipated that noise problems associated with commercial kitchens will form only a small proportion of the complaints received and will also form a small proportion of the 'sources of complaint'.*

### 2.2.2 Properties of noise

Noise is any unwanted, unpleasant or harmful sound created by human activities. Different people perceive it in different ways. Human hearing detects frequencies from 20Hz to 20kHz with sound

[2] https://www.rehis.com/story/over-100-statutory-nuisance-complaints-day-scotland-research-reveals [accessed on 10 August 2018)



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pressure levels ranging typically from 0 dB (normal threshold of hearing) up to 140 dB (i.e. near a military aircraft taking off).

Sound arises as a result of the vibration-excitation of an elastic medium and resultant propagation of energy through the medium in the form of waves. It results in the excitation of the eardrum, and hence its perception. The sound waves in the medium can assume several shapes including spherical and cylindrical forms.

**Frequency content:** Noise is considered tonal if there is a dominant frequency of relevance in the spectrum (and its harmonics) or broadband, where there is a contribution over many frequencies. *In both cases the noise could be described as a hum, but the former may have characteristics that make it perceptibly more significant.*

**Decibels and levels:** The response of the human being to sound is approximately proportional to the *sound pressure generated by the noise. For each doubling of sound pressure the level increases by 6dB. This is* usually represented in relation to a reference pressure level in the following form:

$$SPL = 20\log_{10}\left(\frac{p}{p_{ref}}\right)$$

| Example 1 sound pressure 100Pa | Example 2 sound pressure 200Pa |
|---|---|
| SPL = 20 x log(100/2.10$^{-5}$) | SPL = 20 x log(200/2.10$^{-5}$) |
| SPL = 20 x log (5000000) | SPL = 20 x log (10000000) |
| SPL = 20 x 6.7 | SPL = 20 7 |
| SPL = 134dB | SPL = 140dB |

Where $p_{ref} = 2\times10^{-5}$ Pa.

*6dB therefore represents a doubling of sound pressure.*

To add decibels (e.g. Levels L1 and L2) the following equation is used:

$$L_{tot} = 10\log_{10}\left(10^{\frac{L1}{10}} + 10^{\frac{L2}{10}}\right)$$

| Example 1 2 sources of 60dB | Example 2 one source 80dB one source 70dB |
|---|---|
| SPL = 10 x log(10$^{60/10}$ + 10$^{60/10}$) | SPL = 10 x log(10$^{80/10}$ + 10$^{70/10}$) |
| SPL = 10 x log (2000000) | SPL = 10 x log (200000000) |
| SPL = 10 x 6.3 | SPL = 10 x 8.04 |
| SPL = 63dB | SPL = 80.4dB |

This shows that adding two sound levels of equal magnitude increases the level by only 3 dB, *whilst sources that are different favour the more dominant source. Hence, attenuating the higher-level* sources first whenever there is more than one source of noise present is advisable.

**Weighting curves:** these curves are used to "shape" the frequency spectrum. There are several weighting curves used with the most common being "A", "Z" and "C". The A-weighted sound level approximates to the response of the human ear and is used to provide an indication of the human being's perception of noise, *whilst the Z-weighting curve represents a standardised linear response. C-Weighting is used by some machine manufacturers supplying acoustic data for their equipment.*

**Noise indicators:** People's perception to noise can vary significantly. In order to establish common assessment methods for noise and a definition for noise limit values, indicators are used. There are several types of indicator and their use will vary according to the aspect of noise of interest. The ones more commonly used are:

$L_{Aeq}$ *is an indicator of the notional steady-state sound at which, at a given position and over a defined period of time, it has the same A-weighted acoustic energy as the actual fluctuating sound.*

$L_{den}$ *is an indicator of the overall noise level during the day, evening and night which is used to describe annoyance caused by exposure to noise.* $L_{day,16hour}$, *and* $L_{night,\ 8hour}$ *can be used to compare directly with WHO related standards. These numbers can be estimated from sound power data for machines and distance correction calculations.*

$L_{night}$ *- is an indicator for the sound level during the night used to describe sleep disturbance.*

$L_{A90}$ *– this is the background noise level without the source noise operating, this is used in BS4142:2014 assessments.*

The process of trying to prevent, reduce or avoid noise has to be done on a prioritised basis by examining the noise characteristics and noise levels involved. For all noise predictions the essential



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elements are the characterisation of the acoustic source, knowledge of the transmission path and propagation to the receiver point.

### 2.2.3 Types of noise in commercial kitchens

Factors that influence magnitude of noise in a commercial kitchen are:

- ***Unabated air intake****: air extracted from the kitchen is often replaced with passive or mechanical ventilation air intakes. Unabated air intakes are effectively holes in the building fabric allow noise out unless acoustically treated. Mechanical air intakes (with fan assist) may be a separate source of noise as these tend to be low level it may be possible to screen or cover such intakes to block line of sight with receptor.*
- **Size and format of the exhaust**: the bulk flow leaving the exhaust diffuser generates broadband aero-acoustic noise. The sound level increases with increase in air speed and decreases with increase in area. The presence of grilles will generate tonal components. The sound levels are inversely proportional to the increase in area and increase with the eighth power of the flow speed.
- **Heat release from kitchen:** this influences the size of the exhaust system required and the flow rate of air to be handled by the system. Increase in flow rates can increase the pressure perturbations that can generate noise or can excite other parts of the system leading to noise.
- **Type of cooking appliances used:** this dictates the overall noise level as each individual appliance might contribute significantly to the total noise.
- **Position of exhaust fan in the system:** this may influence the noise radiated by the fan to the interior or exterior of the building and the transmission of sound energy into the exhaust duct system.
- ***Final discharge direction:*** *this can influence the directivity of the sound - wall mounted ducts can transmit sound horizontally from the wall, whilst vertical emission stack discharges could produce point source emissions. Caps, cowls or other points of restriction of air flow can also influence emitted noise levels.*
- **Fitting and dimensions of the exhaust flow ducts:** exhaust duct dimensions, fixings and insulation can all influence the amount of noise these structures will transmit and propagate. Selection of appropriate noise attenuating materials, avoidance of flow restrictions, and vibration isolators between the ducts and the fan are some of the aspects to be considered. *Additionally, line of sight between kitchen and extract point may allow general kitchen noises, (crashing, banging, shouting etc.) to be emitted.*
- **Fan type and speed:** Type of fan used (e.g. centrifugal fan with blades that are backward curved, forward curved or radial, or axial fan) will influence the level and nature of noise emitted. The fan characteristic needs to be chosen so that it is operating at its most efficient duty point as this tends to be the region of minimum noise. If fan speed is too high it will be operating away from that point which can lead to increases in level of up to 10 dB, as well as inefficient air management. It is often also desirable acoustically to use larger fans operating at low speeds rather than smaller fans operating at higher speeds

Sources of noise from commercial kitchen ventilation systems are summarised in Table 3.

**Table 3: Sources of noise from commercial kitchen ventilation systems**

| Source of Noise | How/Why Noise Arises |
|---|---|
| *Air intake* | *- High velocities through intake duct or grill*<br>*- Unabated intake systems allowing noise transmission outwards* |
| Extract hood | - High air velocities through extract hood |
| Extract/supply grille | - High air velocities through extract/supply grille |
| Extract/supply ductwork | - High air velocities through extract/supply ductwork<br>- Resonance of fan noise through extract/supply ductwork |
| Extract/supply fan | - Fan motor noise<br>- Fan impeller balancing *of fans*<br>*- Build-up of grease on (inline) fans* |
| Extract/supply discharge point | - High extract/intake air velocities |



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*Ventilation systems shall be designed to prevent an acoustic impact on the external environment and therefore harm to the amenity. It should also be noted that bad design can affect internal noise in flats above or on neighbouring properties if structure-borne noise is not dealt with sufficiently. This is relevant for new and existing kitchen.*

## 2.3 Typical Problems Encountered with Commercial Kitchen Ventilation Systems

*The types of problems encountered by Council Officers when dealing with odour and noise situations are summarised in Table 4.*

**Table 4: Summary of problems of commercial kitchen ventilation systems**

| Area | Effect |
|---|---|
| Where restaurant changes cooking type (e.g. from tea room to fish and chip shop) | Generally found that change introduces more extensive odour emissions over longer opening times.<br>Existing planning permission may not include an odour control requirement. Need to rely on nuisance legislation to ensure mitigation measures are installed. |
| *Air leaving the kitchen is too hot when it passes through the abatement system* | *The extracted air from the kitchen is too hot for grease and oil droplet to have formed by the time it reaches the secondary grease filters and odour abatement. Consequently, droplets only form once the air has passed through the abatement system.*<br>*The extraction system needs to include a means of reducing the air temperature before the secondary grease filters and odour abatement.*<br>*This may be particularly important for kitchens using wood burning appliances.* |
| Application of grease filters and pre filters | Mixed experience of filter maintenance. Maintenance interval of 14 days considered necessary. |
| Application of electrostatic precipitation | Concerns about:<br>• ESP used for odour control (as opposed to particle control); and<br>• Maintenance.<br>Generally used in conjunction with other abatement procedures. |
| Application of carbon filtration | Mixed experience with carbon filters. Concerns about:<br>• Poor maintenance;<br>• Effect on back pressure leading to noise;<br>• Effect on fan size leading to noise; and<br>• Maintenance interval of 4 to 6 months considered appropriate<br>Always used in conjunction with stack for discharge. |
| UV/ozone systems | Concerns about Residual ozone<br>Always used in conjunction with high efficiency particulate removal and a stack. |
| Application of odour neutralising agents | Mixed experiences with this range of products. Concerns about:<br>• Dosing levels leading to further odour problems;<br>• On-going maintenance.<br>Can be used as a 'polishing' technique in highly sensitive situations.<br>Must be used in conjunction with stack. |



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| Area | Effect |
|---|---|
| Application of stack height | Mixed experience with stack heights. No consistency on appropriate height (roof eaves or ridge). Main concern occurred where:<br>• Premises on rising ground where effective stack height is reduced;<br>• Building housing premises is shorter than surrounding buildings; and<br>• Premises is a listed building, is located in a conservation area or located in a courtyard. |
| *Example noise problems* | • *worn fan bearings*<br>• *slipping belts*<br>• *grease build up on acoustic splitters*<br>• *transmission of sound through the building flats neighbouring the kitchen*<br>• *Failed activation mountings*<br>• *Duct noise (resonance)*<br>• *Air movement noise*<br>• *Fan balance problems*<br>• *Variable speed fans & resonance*<br>• *Intermittent operation (wind up and run down)* |
| *Chimney heights used for wood burning appliances* | *Problems occur when chimney heights are set too low and subsequently cause a potential nuisance.*<br>*It is recommended that chimneys should be designed in accordance with the minimum requirement of the chimney height memorandum.* |



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# 3 Regulation of Kitchen Ventilation Systems

## 3.1 Role of Council Officers

There are a number of council officers within the Local Authority (LA) who may be involved in the regulation of commercial kitchen exhaust systems in terms of noise and odour. The nature and extent of their role will depend upon the situation that has initiated the process of regulation and/or the structure of the regulators organisation, but could typically result in engagement by any of the following:

- Planning application submitted (new build or change of use) *may involve Planning Officers (PO) Planning Enforcement Officers (PEO); Environmental Health Officers (EHO); Technical Officers (TO)*
- Noise or odour complaint has been received *will involve EHO or TO, but could also involve PEO*;
- Change of use not requiring a planning application *may involve PEO or EHO or TO*

The following sections provide a summary of the roles of the Local Authority Officers for each of these situations, and where applicable additional explanation is provided immediately below.

### 3.1.1 Regulation in response to submission of a planning application

Table 5 summarises the roles of the LA Officers in the regulation of commercial kitchens in response to submission of a planning application. This could be in relation to a new build kitchen, a change of use or an extension to an existing commercial kitchen premises requiring planning permission.

**Table 5: Summary of the roles of LA Officers when a planning application is submitted relating to a commercial kitchen**

| Activity | Planning Officer (PO) | Building Control Officer (BCO) | Environmental Health Officer (EHO/TO) |
|---|---|---|---|
| 1. Application received. | Circulates planning application - to Environmental Health Department(1). | | Provides advice to PO on conditions relating to noise and odour, or will recommend permission is conditioned or refused. |
| 2. Planning granted with conditions on odour/noise or may be refused based upon odour/noise issues | Example conditions for applications involving kitchen ventilation systems:<br>Noise – Levels that shouldn't be exceeded e.g. 1m from façade of nearest residential property, or at boundary of site.<br>Odour – Submission of an approved scheme for odour control. | | Although in theory conditions are from the planning or licensing department, in practice, EHO has direct contact with applicant to establish odour control scheme, and advises planner on whether appropriate. Any changes to be made will be discussed directly with the applicant.<br>The EHO may recommend refusal of planning permission, if in their opinion, the development will cause statutory nuisance that cannot be mitigated with conditions. |
| 3. Submission of 'full plans' for building regulations | | Plans checked for compliance with Parts B, F and J of Building Regulations. | |



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| Activity | Planning Officer (PO) | Building Control Officer (BCO) | Environmental Health Officer (EHO/TO) |
|---|---|---|---|
| approval[3] if planning permission granted. | | | |
| 4. Inspections | | Inspections at defined points during construction and installation to check compliance with submitted plans. | Inspections for food hygiene purposes may require cleaning or maintenance of grease removal or odour abatement plant. |
| 5. Ongoing monitoring | No ongoing monitoring of compliance with planning conditions. In terms of odour & noise any follow-up will be by EHO if a complaint is received. | | Premises will be visited at a frequency set according to risk assessment of premises to check food hygiene requirements. No monitoring in terms of odour/noise. |

*Note (1) EHO's are assumed to be consultees to planning applications in most cases and their comments may have been considered when a Planning Department issues a decision notice. However, there is no requirement for the Planning Department to adopt the EHO advice, as other material considerations may be more pressing or have greater weight in planning terms. In extreme cases this may cause conflict between statutory nuisance provisions requiring abatement of nuisances and planning permission permitting land uses. In such cases legal advice should be sought by the regulator as to how to proceed.*

*Annex B provides examples of information required to support a Planning application for a commercial kitchen ventilation system.*

### 3.1.2 Regulation in response to a noise and/or odour complaint

Table 6**:** summarises the roles of the Planning and Environmental Health Officers in the situation that a noise and/or odour complaint is received by the Local Authority. The Building Control Officer has been omitted from the table because they are not normally involved.

**Table 6: Summary of the roles of LA Officers in response to a noise and/or odour complaint relating to a commercial kitchen**

| Activity | Planning Officer (PO) | Environmental Health Officer (EHO) |
|---|---|---|
| 1. Complaint received by LA. | If received by planning department then received by PEO if specific conditions in place, or referred to EHO for investigation. | EHO responsible for following up complaint received. |
| 2. Investigation of problem. | | Investigate initially by telephone call and then by a site visit. A visit will often be required particularly for odour assessment. |
| 3. Breach of planning conditions? | PEO liaison with EHO following site visit to establish whether in breach of conditions. If yes go to Activity 4. If no go to Activity 5. | Liaison with PO to establish whether in breach of conditions. If yes go to Activity 4. If no go to Activity 5. |
| 4. Discussion & persuasion | | EHO undertakes discussion to agree changes to rectify problem. If cannot be persuaded refer to Activity 6. |
| 5. Follow-up visits. | *PEO carry out follow-up compliance visits. Liaison with EHO may be necessary to ensure any changes are being/have been* | Site visits undertaken to ensure conditions now being met. If found still to be in breach, then refer to Activity 6. |

[3] Building regulations approval only has to be sought where building structure is affected – i.e. always in the case of a new build commercial kitchen, usually for an extension to an existing building, but only sometimes in relation to change in use.

| Activity | Planning Officer (PO) | Environmental Health Officer (EHO) |
|---|---|---|
| | *made to comply. PEO check that conditions are no longer being breached.* | |
| 6. Enforcement measures taken. | Enforcement notice issued by PEO. Review called by EHO following technical advice from EHO. | Technical advice provided to PO for issue of an enforcement notice. |
| 5. Statutory nuisance? | *PEO may supply evidence to support statutory nuisance investigation* | EHO to assess whether causing statutory nuisance. |

*Note: individual local authorities may have different duties and responsibilities assigned to officers.*

### *3.1.3 Assessment of whether causing statutory nuisance*

*Noise*

- *Planning conditions set upon grant of permission assume that the principles of planning are met, i.e. that no significant adverse impacts are present and that adverse impacts are reduced to a minimum. In these cases, it is unlikely that a statutory nuisance will be caused, since conditions/limits would have been set so as to avoid nuisance when addressing amenity or public nuisance. If these controls are in place and working, it is unlikely that statutory action can be taken. An investigation for statutory nuisance is still necessary, but ultimately it is for the local authority to determine compliance by whatever metric. It is strongly recommended that legal advice is taken where there is a potential for conflict.*

*Odour*

- *Planning conditions are only likely to have been set following an applicant putting forward a scheme to manage odour. It is possible that the scheme is appropriate, but that its implementation is poor. In such cases an assessment as to whether statutory nuisance is present (see section below for details of statutory nuisance) will be required.*

### 3.1.4 Regulation in response to a change of use not requiring planning permission

In most cases a change in use of a premises will require planning permission. However, if both the original and the planned future use fall within the same use class (as defined within the Town and Country Planning (Use Classes) Order, *as defined in the GDPO*, planning permission is not required. *This may impact on regulatory regimes available to resolve the issue.*

**Example: A change in use from a tea shop to an Indian restaurant. Both of which would fall under Use Class A3 that includes "use for the sale of food or drink for consumption on the premises or of hot food for consumption off the premises would not require consent, but an Indian restaurant seeking to add class A5 (takeaway) would require consent".**

**Table 7: Summary of the roles of LA Officers in response to a change of use not requiring planning permission relating to a commercial kitchen**

| Activity | Planning Officer (PO) | Building Control Officer (BCO) | Environmental Health Officer (EHO) |
|---|---|---|---|
| 1. Change of use for commercial kitchen premises within Class A3. | Planning permission not required. | Only involved if change in use includes changes to structure of the building. | The Food Premises (Registration) Regulations 1991 (as amended) requires all food premises to be registered with the local authority. On a change in the nature of the food business within Class A3, the owner must inform the LA Environmental Health Department so that details are changed on the register. |
| *2. Change of operation hours* | *May require application to vary condition, in* | | |

| Activity | Planning Officer (PO) | Building Control Officer (BCO) | Environmental Health Officer (EHO) |
|---|---|---|---|
| | *planning unlikely to involve change of infrastructure* | | |
| 3. Investigation into consequences of change in use. | | | As long as the change in use is registered (see below for further details) the EHO may review the likely consequences of the change in terms of protecting the local amenity. |
| 4. Provision of advice. | | | Provision of advice as to any changes that should be made in order to avoid a potential problem in future (i.e. causing statutory nuisance). If advice taken, then should be no problems. If not, then likely that a complaint will be made. |
| 5. Enforcement action. | | | EHO have powers under the Environmental Protection Act in case of likely occurrence of statutory nuisance. This route should only be taken if sure that nuisance will occur. Therefore, more likely to wait for a complaint. |
| 6. Receipt of complaint | Same procedure as detailed in Table 6. In this case it is more likely to require assessment for statutory nuisance in terms of noise as well as odour, since planning conditions set in relation to original use. | | |

Notification of the change in the nature of the food business is required under Regulations made under the Food Safety Act 1990, through the food business proprietor supplying the relevant authority with particulars of the changes. This requirement offers an opportunity to proactively assess the suitability of extraction systems for the new intended use. Implementation of this could vary between local authorities.

## 3.2 Regulation Governing Design and Performance of Ventilation Systems

There is no legislation directly governing the design and performance of commercial kitchen ventilation systems. However, other regulations protecting the health and safety of employees, food safety and local amenity *do exist. Other general requirements* for ensuring building integrity and relating to fire safety indirectly impact upon the design and performance *of extraction systems* and must be complied with. As a result, there are numerous forms of guidance available relating to the design and performance of ventilation systems including industry guidelines such as *DW172 - whilst not a legal requirement, is referenced by IGEM, Gas Safe and the HSE as being the specification for designing a commercial kitchen ventilation system*, British Standards, and guidance from government departments. This section aims to summarise the relevant legislation as well as guidance available.

### 3.2.1 Relevant legislation

❖ ***The Building Regulations 2000 (in response to the Building Act 1984)***

The main purpose of the Building Regulations is to protect the Health and Safety of people in and around buildings. It is necessary to gain approval under the Building Regulations for any new building, or any change to an existing building that involves changes to the building structure. The Regulations are split into 14 parts, of which the following are particularly applicable to commercial kitchens:

- Part B: Means of escape in the event of a fire, internal fire spread, external fire spread including access and facilities for the fire service;
- Part E: Resistance to the passage of sound;
- Part F: Ventilation of buildings; and
- Part J: Air supply to heat producing appliances, discharge of the products of combustion and the protection of buildings from the risk of fire due to heat producing appliances, chimneys and flues.

Part B and Part J relate to fire safety in the kitchen and are discussed further in the section on fire safety. *Part E references passage of sound within the building and may be relevant to restaurants or takeaways with residential accommodation attached.* Part F is more specific to the requirements for the design of ventilation systems in general. In terms of commercial kitchens, Part F refers to the CIBSE (Chartered Institution of Building Services) Guide B. Guide B2, section 3.6 sets out the requirements for ventilation systems in commercial kitchens. Complimentary to this, is Guide B3, which specifically deals with ductwork connected to ventilation systems. As well as providing general design criteria, there are sections dealing specifically with noise and fire issues.

### ❖ *The Environmental Protection Act 1990*

This Act gives powers to the local authority to implement measures to prevent occurrence of statutory nuisance and where it does occur to enforce implementation of measures to rectify them. Statutory nuisance is defined under the EPA 1990 for England and Scotland and includes, in relation to noise and odour:

a) any fumes or gases emitted from premises so as to be prejudicial to health or cause a nuisance;

b) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance; and

c) noise emitted from premises so as to be prejudicial to health or a nuisance.

In Northern Ireland Statutory nuisance is defined under the Local Government (NI) Order '78/ Public Health (Ireland) Act 1878 as:

a) any factory, workshop, or workplace not kept in a cleanly state, or not ventilated in such a manner as to render harmless as far as practicable any gases, vapours dust, or other impurities generated in the course of the work carried out therein that are a nuisance or prejudicial to health, or so overcrowded while work is carried on as to be dangerous or prejudicial to health of those employed therein;

b) any trade, business, manufacture or process which is a nuisance, or which causes any grit or duct (being solid particles of any kind, other than such particles emitted from a chimney as an ingredient of smoke) or effluvia which is a nuisance to, or injurious to the health of, any of the inhabitants of the neighbourhood.

The Noise and Statutory Nuisance Act 1993 amends Part III of the EPA but does not affect the definition of statutory nuisance relating to noise and odour. One way in which the Local Authority is able to prevent statutory nuisance occurring is via conditions in planning permission. This is discussed below.

### ❖ *The Town and Country Planning Act 1990*

Town and Country Planning legislation requires new build commercial kitchens (as well as most other new developments) to obtain planning permission. In addition, premises will require planning permission for a change in use as defined under the Town and Country Planning (Use Classes) Order and where significant structural changes are to take place.

In relation to noise and odour, the local authority will consider whether sufficient measures for their control are included in the design, and subsequently planning permission may be granted with conditions. For commercial kitchens these are likely to include measures to ensure that noise and odour are managed to avoid detriment to the amenity.

### ❖ *National Planning Policy Framework (NPPF) (ENGLAND) 2018*

*Odour is not specifically mentioned in the guidance. A generic term "pollution" is used, but there is otherwise no specific guidance on odour, or kitchen extraction systems. A summary of the general comments is provided below:*

*Paragraph 8 references sustainable development overarching objectives - should "contribute to protecting and enhancing our natural, built and historic environment, including making effective use of land, … minimising waste and pollution."*

*Paragraph 9 encourages implementation of these objectives through the "preparation and implementation of plans… Planning policies and decisions should play an active role in guiding development to sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area."*

*Paragraph 170 outlines general requirements for the control of pollution:*

> *170. Planning policies and decisions should contribute to and enhance the natural and local environment by: ….*
>
> *e) "preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; …*

*Paragraph 180 provides additional detail:*

> *180. Planning policies and decisions should also ensure that new development is appropriate for its location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*
>
> *a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
>
> *b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and*
>
> *c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation."*

*Paragraph 183 advises that "the focus of planning policies should be on whether the proposed development is an acceptable land use, rather than control of processes or emissions (where these are subject to separate pollution control regimes)."*

*Supplementary planning guidance play a key role in steering planning policy. Such guidance is provided by the devolved governments.*

### ❖ *Health and Safety legislation/guidance*

In relation to general ventilation in the workplace, the *Workplace (Health, Safety and Welfare) Regulations* (1992) require that 'an effective and suitable provision shall be made to ensure that every enclosed workplace is ventilated by a sufficient quantity of fresh or purified air'. Directly related to commercial kitchens, the Health and Safety Executive (HSE) have produced a reference sheet with the title "Ventilation in catering kitchens" (2017). This provides guidance on how to assess the adequacy of any existing ventilation equipment, and the ventilation requirements for new build kitchens.

*The HSE has also published guidance (Catering Information Sheet No 26) dealing with the likely exposure to carbon monoxide from use of solid fuel appliances in commercial kitchens.*

*The Control of Noise at Work Regulations (2005) specify Action Levels that relate to the "daily personal noise exposure" ($L_{EP,d}$) of workers. At the first Action Level ($L_{EP,d}$ = 80 dB(A)) ear protection must be provided and at the second Action Level ($L_{EP,d}$ = 85 dB(A)) ear protection must be worn.*

*The Supply of Machinery (Safety) Regulations 2008 requires that any plant or equipment likely to expose an operator at a work station to more than 70dB of noise should provide full details of the acoustic sound pressure and sound power of the equipment of the equipment need to be provided. This can be used as screening criteria for the potential impact of extraction systems.*

### ❖ *Food Hygiene Legislation*

*The Food Safety and Hygiene (England) Regulations (2013) and EU Regulation 852/2004,* require that:

- There is to be suitable and sufficient means of natural or mechanical ventilation.
- Mechanical airflow from a contaminated area to a clean area is to be avoided.
- Ventilation systems are to be so constructed as to enable filters and other parts requiring cleaning or replacement to be readily accessible.

❖ ***Fire prevention legislation***

Proprietors of commercial kitchens are under a duty to ensure that the fire precautions meet the requirements of the "Fire Precaution (Workplace) Regulations 1997".

### 3.2.2 Industry guidance/standards

The *Building Engineering Services Association (BESA),* who aim to provide standards for the design of commercial kitchen ventilation systems, have produced relevant industry guidance. Their publications, along with other available relevant industry guidance, are listed below:

- BESA Standard for Kitchen Ventilation Systems, DW/171;
- *BESA Specification for Kitchen Ventilation Systems, DW/172;*
- *BESA Guide to Good Practice - Cleanliness of Ventilation Systems, TR/19*

It is worth noting that BESA Standard DW/171 includes a useful section on odour control *which complements this amended report*.

Also, in relation to food hygiene, there is a series of industry guides to compliance with "The Food Safety and Hygiene (England) Regulations 2013" and "EU Regulation 852/2004".

### 3.2.3 Regulations/guidance relating to fire safety

The Building Regulations Part B relates to general fire safety, and Part J relates to protection of buildings from fire risk due to heating appliances. These must, therefore be complied with by commercial kitchens in order to obtain building regulations approval. Further to this legislation, the establishment will also be required to comply with the "Fire Precautions (Workplace) Regulations 1997", which relate to general fire safety.

Guidance in terms of general fire safety is provided by the Building Services Research and Information Association in their publication with the title "Commissioning of Fire Systems in Buildings (1994)".

More specific guidance relating to fire suppression in ventilation systems and duct work is provided in the BESA Standard DW/171. *In addition to this the Association of British Insurers have produced a document on "Fire Risk Assessment for Catering Extract Ventilation". This provides practical guidance on the factors influencing the likelihood of a fire in a kitchen ventilation system and how to undertake an appropriate risk assessment.*

## *3.3 Additional case study material*

*The following case studies have been extracted for Defra "Odour Guidance for Local Authorities (March 2010)" [Withdrawn September 2017].*

***Case Study 1: Good Practice Example – Use of Planning Condition to control odours from an extract system*** *Practice Example – Use of Planning Condition to control odours from an extract system*

*"No air extraction system shall be used on the premises until a scheme which specifies the provision to be made for the control of odour emanating from the site has been submitted to and approved by the local planning authority. The scheme may include such combination of measures as may be approved by the LPA. The said scheme shall include such secure provision as will ensure that the said scheme endures for use and that any and all constituent parts are repaired, maintained and replaced so often as occasion may require."*



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***Case Study 2: Good Practice Example – Ventilation/Extraction Statement***

*"Details of the position and design of ventilation and extraction equipment, including odour abatement techniques [and acoustic noise characteristics], will be required to accompany all applications for the use of premises for purposes within Use Classes A3 (i.e. restaurants and cafes used for the sale of food and drink on the premises), A4 (i.e. drinking establishments such as public houses, wine bars etc), A5 (i.e. hot food takeaways used for the sale of hot food for consumption off the premises), B1 (general business) and B2 (general industrial)."*

***Case Study 3: Good Practice Example - Odours from Hot Food Takeaway***

*One local authority served an abatement notice on this business requiring the abatement of the statutory nuisance arising from odours emanating from the ventilation extraction system by requiring the execution of works in compliance with the following schedule: "Within 1 calendar month of the date of service of this abatement notice, employ the services of a suitably qualified ventilation engineer to produce a scheme designed to abate the statutory nuisance from odours. Within 2 weeks thereafter and prior to any measures being implemented, submit the scheme to the Pollution Control Division of the Environment Department for written approval. Within 1 calendar month of receiving such approval ensure that the approved scheme is properly installed and commissioned."*

# 4 Review of Common Types of Kitchen Ventilation Systems

***Reference material on design considerations for kitchen ventilation system:***
***DW/100 Ductwork Publication Pack***
***DW/143 A Practical Guide to Ductwork Leakage Testing***
***DW/144 Specification for Sheet Metal Ductwork - Low, Medium & High Pressure/Velocity Air Systems***
***DW/145 Guide to installation of Fire and Smoke Dampers***
***DW/154 Specification for Plastics Ductwork***
***DW/191 Guide to Good Practice - Glass Fibre Ductwork***
***TR/19 Guide to Good Practice - Cleanliness of Ventilation Systems***
***CEDa Guidance on best practice for the safe installation, operation and maintenance of solid fuel fired catering equipment in commercial premises.***

## 4.1 Overview

The principle function of a kitchen canopy is to protect the working environment around the cooking process from soiled matter and flame, and to ensure that the working environment is tolerable and safe for people to work in. An air flow should be created across the cooking process(es) to capture the effluent created (heat, steam, fat, smoke and odour). Any vapours produced should be collected and contained by means of filters within the canopy and duct work, thus allowing clean air to be discharged. Ventilation is required in the kitchen area and adjoining areas because:

- considerable convective and radiant heat is given off by cooking equipment;
- air becomes laden with odours, grease, fumes and products of combustion;
- during meal preparation and washing up, humidity levels increase over a wide area;
- air replacement and consistency of temperature are required throughout the cooking and adjoining areas;
- air is required to dilute and replace products of combustion from gas fired appliances; and
- Supply air is required to ensure complete combustion of the fuel *and provide safe operation of the gas equipment. Details of these requirements are contained in the Building Regulations, BS 6173 and the CIBSE Guide B2*

The main emissions that require removal are:

- Expanded air from the heat load surrounding the cooking device;
- Precipitation of moisture existing in food into a vaporous state, primarily consisting of steam, grease, cooking odours and organic particulate;
- Smoke;
- Exhaust fumes from combustion appliances such as gas, wood or charcoal.

*For satisfactory operation of odour control it is necessary to ensure:*

- *The temperature of the extracted air must be low enough to ensure moisture/grease/fat droplets are able to form;*
- *Once particulate matter (moisture/grease/fat/smoke) has formed it should be abated as far as possible;*
- *Once the particulate matter loading is reduced, the odour control step can be applied.*

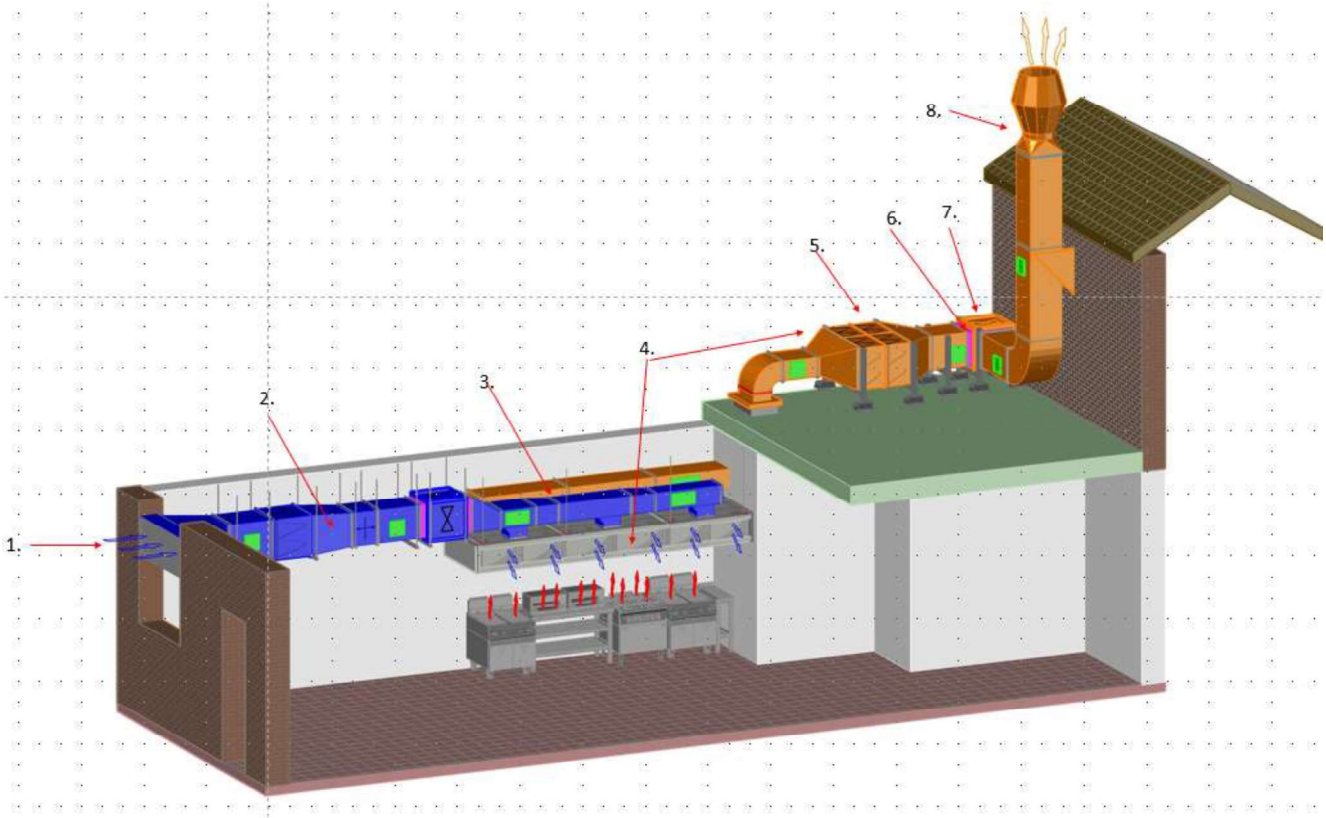
Kitchen ventilation systems can take many different forms. The design of a system is dictated by the type of cooking carried out, the scale of cooking carried out and the location of the kitchen premises. As



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part of this general review the main elements that may be found in a ventilation system are shown in Figure 1 which presents a schematic diagram of a kitchen ventilation system. In this chapter the different options for each of these elements are described.

***Figure 1: Example of a well designed kitchen appliance ventilation system for a single canopy installation***




*Key:*

1. *Supply air intake*
2. *Supply side filter, heaters, fans etc*
3. *Ductwork - properly sized extract & supply ductwork to minimise air noise & resistance to airflow with balanced spigot connections to distribute air along length of canopy*
4. *Grease and particle separation/filtration*
5. *Odour control component (e.g. Carbon filtration module) - where required - to be sited under negative pressure (pre fan)*
6. *Flexible connections to isolate fan noise & transmission through duct*
7. *Extract fan - low noise centrifugal - positioned so as to keep all internal ductwork under negative pressure (pre fan). Also consider fan position for future maintenance access. Further, the preceding ducting may include silencer to attenuate noise positioned appropriately to reduce noise level at the extract point, and, antivibration mounts may also be appropriate.*
8. *High velocity discharge cowl positioned as high as 1m above roof ridge complete with suitable drain point*

## 4.2 Extraction Canopy

The objective of the extraction canopy or canopies within a commercial kitchen is to maintain the internal ambient environment:

- at a safe and comfortable temperature;
- within a comfortable moisture level; and
- at a safe noise level.

The following sub sections present background information that should be used when designing extraction systems and is presented here so that the adequacy of a ventilation accompanying a planning application or kitchen upgrade can be assessed. It is recommended that the actual design of a ventilation system be carried out by an expert.

*It is a mandatory requirement that all extraction systems (new and existing) should comply with the "Control of Noise at Work Regulations 2005". As the internal occupations noise level will be dictated by activities within the kitchen, as well as extraction system noise, ideally the extraction system should not contribute more than 70dB of noise at the operator location, (10dB below the lower exposure level). The "Supply of Machinery (Safety) Regulations 2008" require that all new plant has noise information specified where the sound level exceed 70dB at the workstation.*

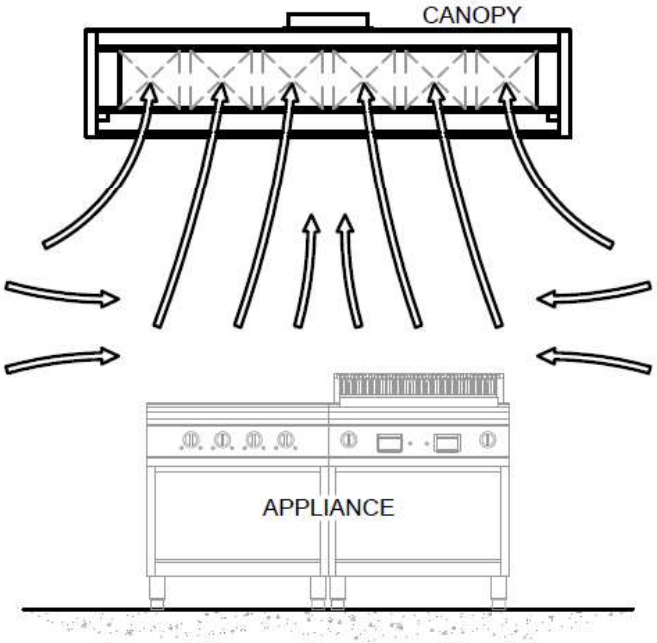
### 4.2.1 What ventilation systems are used

The two main types of ventilation system used in kitchen areas are kitchen canopies and ventilated ceilings to achieve ideal air flow patterns across the appliance (see Figure 2). Modern systems are often able to extract/filter exhaust air, and to supply make-up air in a variety of ways.

For the purpose of dealing with an odour problem the main area of concern will be those extracts located over cooking areas as this will contain the most concentrated cooking odour. The level of odour that may be found within a general room extract system will contain more dilute odour and therefore will be harder to treat.

Noise problems can arise equally from any part of a mechanical ventilation system.

**Figure 2: Air flow patterns**






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### 4.2.2 Determining ventilation rates

Calculation of the optimum ventilation rate for a given location is based primarily on the types of appliances in use, and on the level of activity of the location.

Several methods can be used to calculate the optimum vent rate:

*METHOD RECOMMENDED BY DW/172*

*1. Thermal Convection Method: Each appliance is assigned a thermal convection coefficient, which is multiplied by a factor dictated by its mode of heating (gas or electricity) to generate a convection value. Values for individual appliances are summed to determine the required ventilation capacity. More detailed description and input data are given in BESA DW/172 and CIBSE guide B2.*

Several other methods could be used to calculate the vent rates:

2. Face Velocity Method: Capture velocity for the level and type of loading is multiplied by canopy face area to determine the required ventilation rate. Velocities for light, medium, and heavy loading are 0.25, 0.35, and 0.5 m/s, respectively.
3. Appliance Power Input: Each appliance is assigned a ventilation rate, which is multiplied by the power input in KW to determine the required air flow rate. Individual flow rates in $m^3/s$ are added to calculate the total flow rate for a system. More detailed description and input data are given in CIBSE guide B.
4. Air Changes Method: A per hour vent rate equivalent to 40 times the ventilation volume is considered minimum for comfort under normal conditions, but rates as high as 60-120 volumes per hour may be required where high-output equipment is densely located. Using this method air may be extracted via both a hood extract and a ceiling extract.
5. Linear Extract Method: Each linear meter of active filter length is assigned a vent rate depending on the vent canopy type.
6. Meals Method: Extract rate in litres/sec is expressed as 10-15 times the number of meals served per hour.
7. Area Method: Area of the cooking space in $m^2$ is multiplied by 15-20 litres/sec to give an approximate volume flow rate.

*A commercial kitchen where no cooking takes place is classified as a Preparation Area and should be ventilated at a rate of at least 20 air-changes per hour.*

### 4.2.3 Make-up air

In order for a kitchen extract system to function correctly the overall design must include provision for make-up or replacement air. Air can be made up either by natural infiltration or by using a mechanical supply. If a mechanical input system is used, typically 85% of air will be provided mechanically and the remaining 15% by natural means.

*The Food Safety and Hygiene (England) Regulations 2013 and EU Regulation 852/2004* require that "mechanical air flow from a contaminated area to a clean area must be avoided". Mechanical systems offer a greater degree of control and avoid:

- Unfiltered air entering the kitchen;
- Air being drawn from dirty areas; and
- Draughts and discomfort during cold weather

Natural systems cannot provide targeted 'cooling' to staff working adjacent to canopies. Make-up air can be introduced into a kitchen by means of:

- the canopy;
- ventilated ceiling;
- HVAC system; or
- combination of the above.

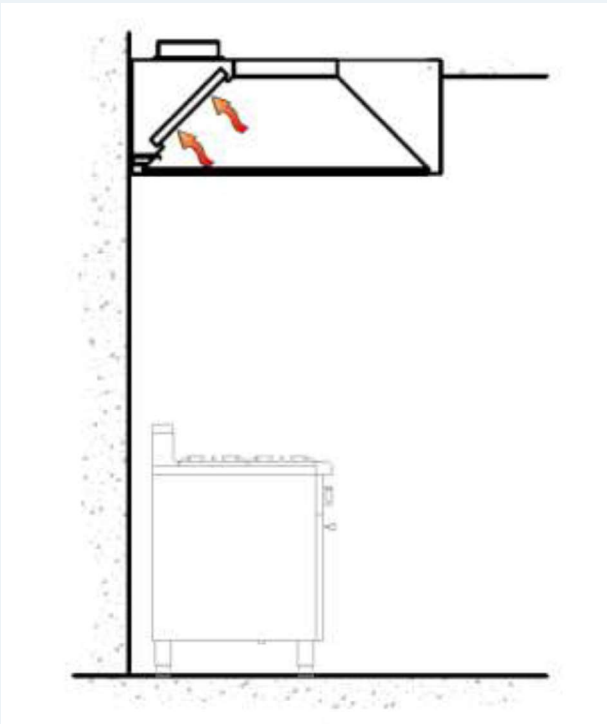
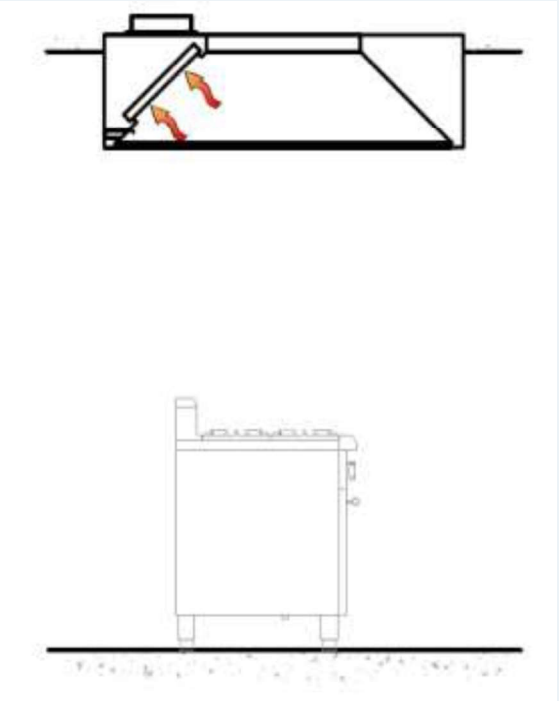
A range of extraction/make up air hoods are available. The choice of hood will be dictated by the application. Whichever system is chosen due regard should be given to potential noise issues arising from the make-up air system (fans, duct work grilles etc).

Where a kitchen relies on a natural make-up air system, its resistance must be taken into account when calculating the overall system resistance against which the extraction fan will operate. In such a system, restaurant operators *should ensure sufficient volume of inlet air to cater for good extraction and should not* rely on open doors and windows within the kitchen area to supply natural make-up air. During summer months this may give rise to odour and noise problems for receptors living adjacent to the kitchen area or, allow the ingress of pests into the food areas.

### 4.2.4 Hoods/extract points

A range of extraction hoods are available (see Figure 3) and the choice of hood will be dictated by the application.

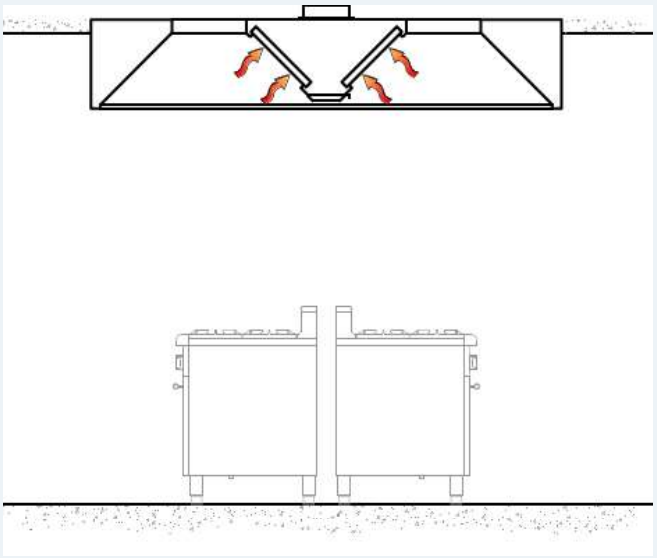
**Figure 3:Canopy design**

| a) Overhead wall mounted | b) Overhead single island |
|---|---|
|  |  |

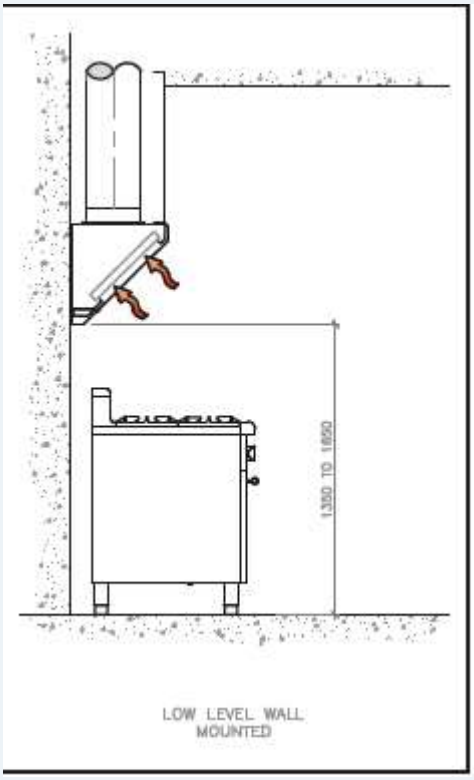


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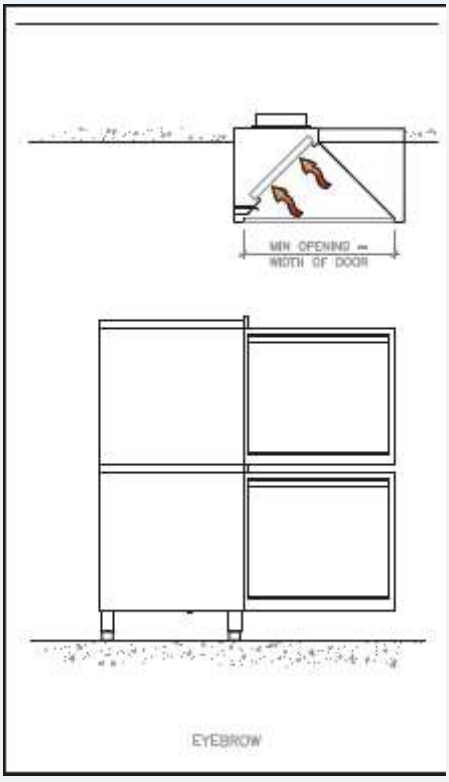
c) Overhead double island



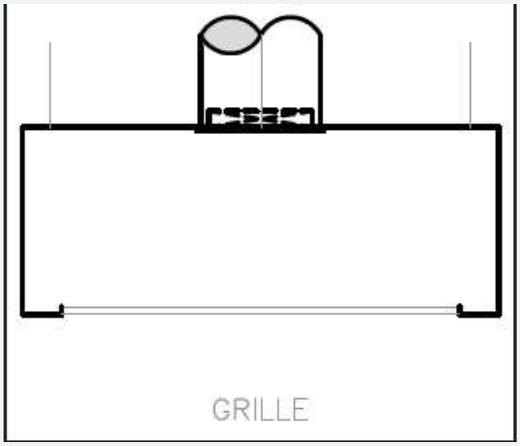
d) Low level wall mounted




e) Eyebrow



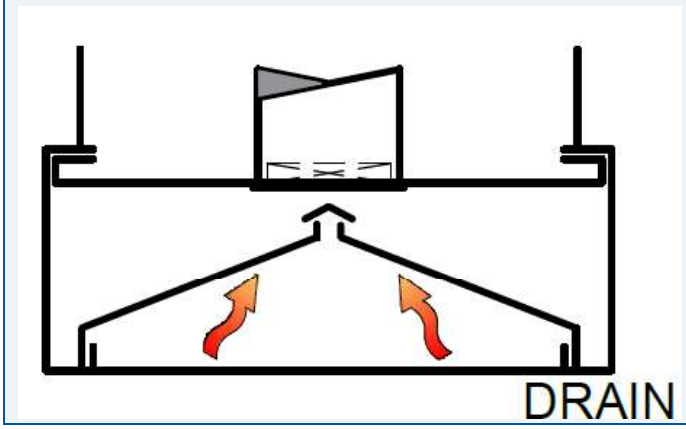

f) Grille






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g) Dishwash canopy with condense drain




The dimensions of a canopy are dictated by the size of the catering equipment that it is serving. The two criteria that have the most influence on the amount of air required for effective ventilation are the **plan dimensions** and **height**.

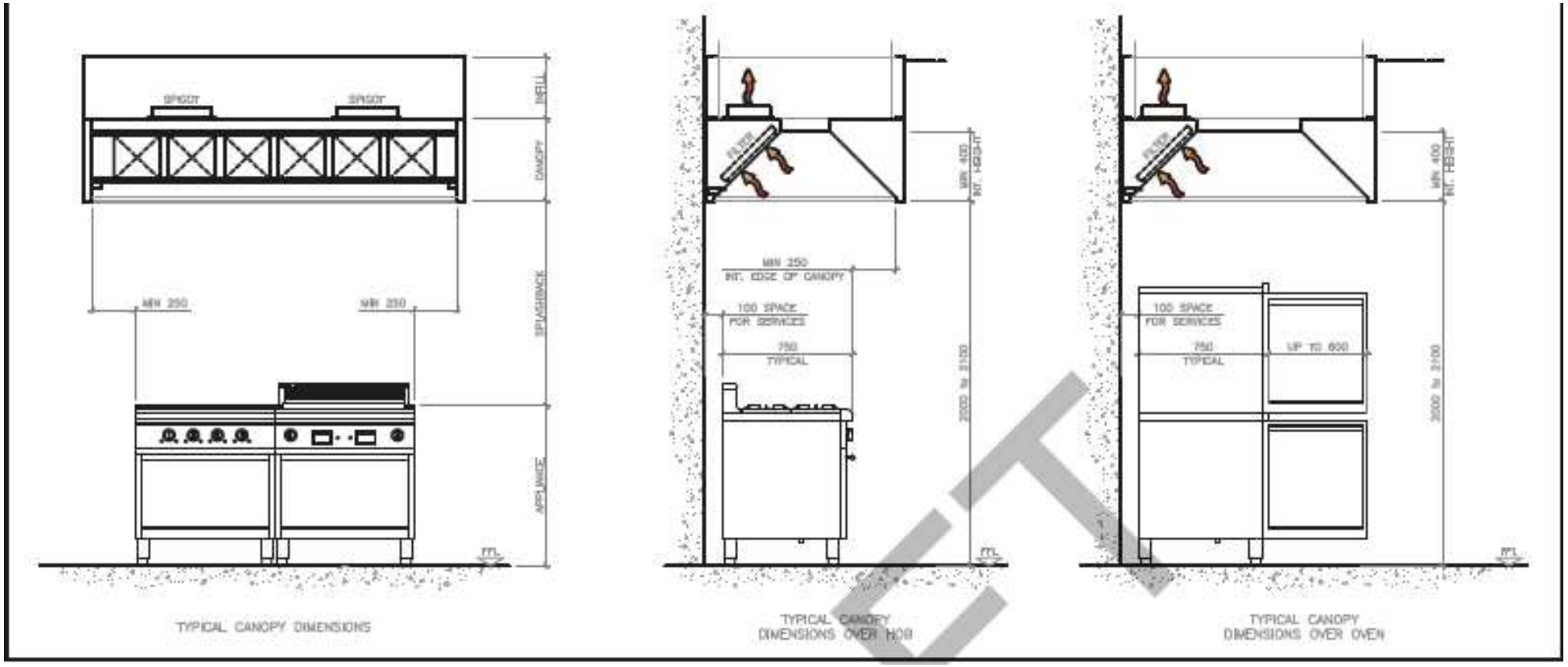
When canopy dimensions are specified, then:

- Unless restricted by walls etc., the plan dimensions of the canopy shall always exceed the plan dimensions of the catering equipment by a minimum of 250mm on each free side.
- Dimensions at the side may need to be increased where high output equipment is located at the end of the cooking line-up. For example, the overhang should be increased to 600mm in front of combination steaming ovens to cope with the steam or fumes released when the doors of the appliance are opened.
- Solid fuel appliances must have an overhang of 300mm from the door open position.
- The overhang dimensions are to the inside of the condensation or stiffening channel, or the supply plenum, the appropriate dimension shall be added when specifying the overall canopy size.

The **height of the canopy** is governed by the height of the ceiling and the underside of the canopy should be located between 2000 and 2100 mm above the finished floor level. The efficiency of canopies less than 400mm high are less efficient than normal because the collection volume is reduced. In these situations, the face velocity may need to be increased to compensate. Where the ideal flow rate cannot be achieved the size of the canopy may be increased to aid capture.

The ideal distance between the lowest edge of the grease filter and the top of the cooking surface should be 450mm as a minimum. This is to avoid the risk of excessive temperatures or fire in the filter that could cause the extracted grease to vaporise and pass through to the ductwork.-This dimension will vary with the type of cooking appliance as illustrated in Figure 4 and can be reduced where fire suppression equipment is installed.

**Figure 4: canopy dimensions**






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### 4.2.5 Ventilated Ceilings

In certain circumstances it may not be practical to install extract canopies, for example:

- where due to structural limitations, low ceiling levels make the use of canopies impractical;
- where the cooking equipment does not generate intensive output in concentrated areas; or
- where a good level of extraction is required but the level of odour/grease produced is relatively low such as in large food preparation or distribution areas.

In these situations, ventilated ceilings may be employed. These systems tend to have higher capital and installation costs and therefore the use will be limited to larger kitchens.

Two types of system are available:

- **Cassette system:** Is an integrated system incorporating partitioned or dedicated extract and partitioned or dedicated supply. The systems are modular and contain a number of cassettes of proprietary design, which filter and separate grease from the air prior to its exhaust. The grease is normally collected in a non-drip integral or perimeter trough for removal and cleaning.
- **Modular plenum system:** The plenum system comprises a series of filter plenum units which allow the exhaust air to pass through a single or double bank grease filter for grease separation before passing into the ceiling void for central point connection and discharge to atmosphere.

**Figure 5: Modular cassette ceiling**

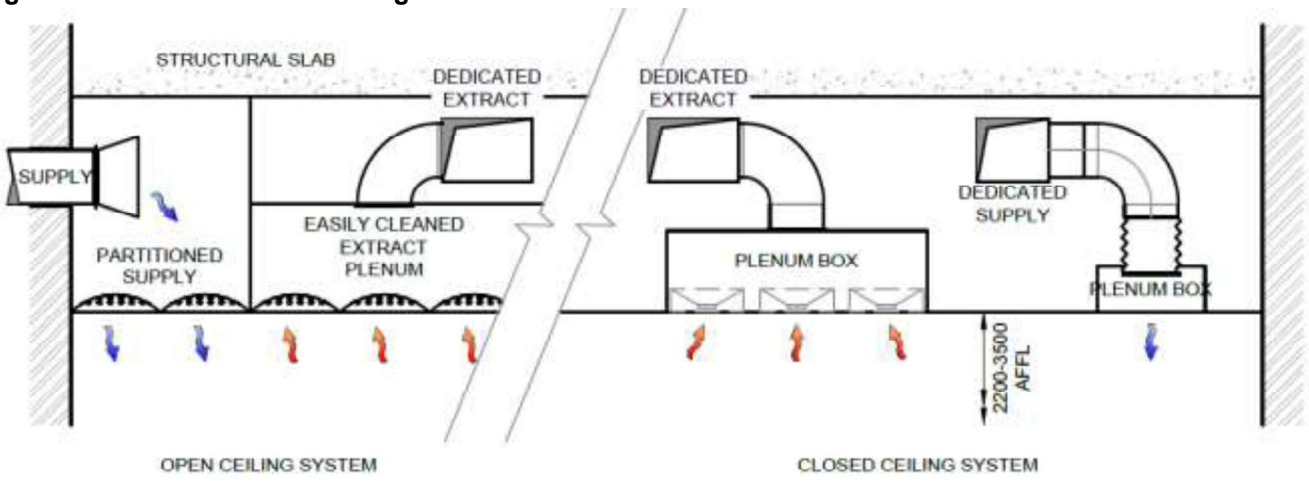
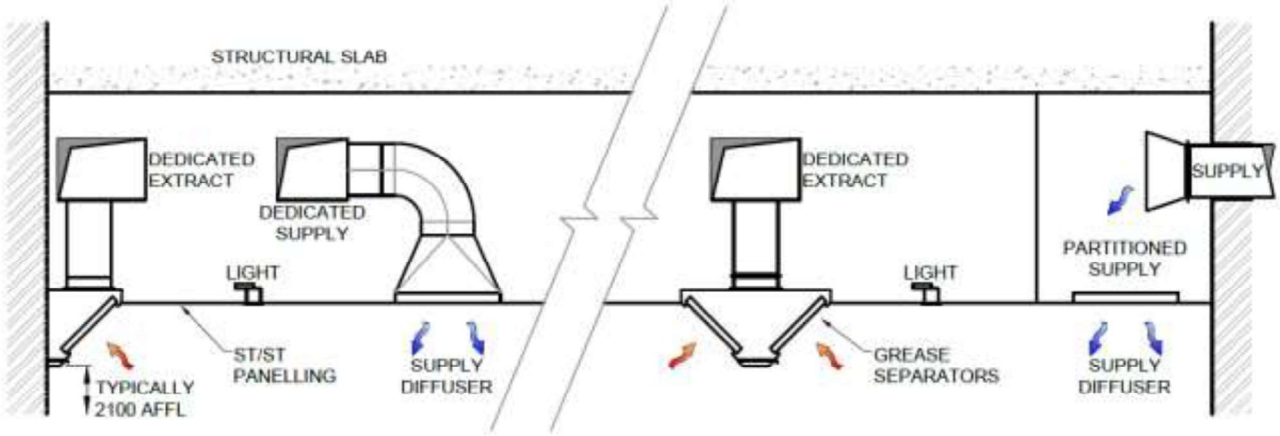


***Figure 6 : plenum ceiling***




### 4.2.6 *Specific requirements for solid fuel catering equipment*

*This type of cooking equipment relies on burning solid fuel (e.g. wood, charcoal). The use of such equipment is restricted in Smoke Control Areas where either the fuel itself or the appliance shall be DEFRA approved.*

*There are fundamentally two types of equipment to be considered.*

- *Self-contained ovens and grills which have a built in flue and which are intended to be connected directly to a flue independent of other extraction systems. These are often decoratively designed or designed to go behind a decorative fascia in a front of house location.*
- *Equipment which is located in the kitchen often as part of the main extraction system used by equipment using other fuels.*

*Moisture content of the wood used as fuel may contribute to the odour emission from the establishment.*

*When solid fuel is burned, products of combustion, including carbon monoxide gas, are released. Carbon monoxide is a highly poisonous gas with no taste, smell or colour. Moderate exposure can lead to serious permanent ill-health effects or death. The advice published in the HSE Catering Information Sheet No 26 "Preventing exposure to carbon monoxide from use of solid fuel appliances in commercial kitchens" should be followed when designing the ventilation system.*

### 4.2.7 Materials of construction of canopies

The *Food Safety and Hygiene (England) Regulations 2013 and European directive* requires that in food preparation areas:

> "ceilings and overhead fixtures must be designed, constructed and finished to prevent the accumulation of dirt and reduce condensation, the growth of undesirable moulds and the shedding of particles."

In relation to canopies, it is best practice to use stainless steel especially if the relevant surface comes directly into contact with food. Typically canopies and other overhead fixtures are fabricated using ultra fine-grained stainless steel, supplied to *EN 10088* and Grade 304. Higher Grades of stainless steel may also be specified. Other materials that could be employed are as follows:

- **Galvanised steel** is not recommended.
- **Untreated aluminium** should not be used. Poisonous particles can be generated when aluminium oxidises in moist atmospheres.
- **Electrolytic zinc coated steel** can be used provided it is treated with a protective finish (e.g. heat beaked epoxy polyester powder coating)
- **Wired glass and translucent panels** should not be used as bacterial growth can occur at joints between sheets

Other best practice guidelines include:

- Where air must be equalised within a supply plenum of a canopy 0.8mm perforated stainless steel sheet should be used. In addition, care should be taken to ensure that the face velocity is about 0.7 m/s. Noise generation increases when velocities of 0.9m/s are exceeded.
- Discharge grills on make-up air systems should be fabricated with 1mm perforated stainless steel sheet.
- Condensation should be avoided in canopies that are provided with supply plenum. Where insulation is used it should:
  - be a rigid foil faced non fibrous slab, with a class 1 spread of flame; and
  - not be fibre based as this could contaminate food.

## 4.3 Duct Work

Duct work on a kitchen ventilation system may include:

- straight ducts of various length, rectangular or circular in cross-section;
- silencers;
- bends (elbows), right angled or curved;
- branches, which may have one or more outlets;
- distribution boxes (plenums);
- terminal units, grilles, diffusers, registers; and
- transition pieces which connect the fan or silencer to the duct.

Ductwork delivering make-up air to the canopy have no special requirements, other than the application of thermal insulation and protective mesh (pre-filtration and bird mesh screen). Designs should ensure that mechanical air flow from a contaminated area into a clean area must be avoided. Under normal circumstances and providing it runs within the fire compartment of the kitchen itself, extraction duct work has no special requirements. Such ductwork should be low pressure Class A type.

Other design considerations are:

- For kitchens, cooking materials with high grease content total ‘grease tightness’ may be required. This duct work may be constructed from 1.2 mm stainless steel or 1.6 mm electrolytic zinc coated steel. The duct work should be fully welded. Where gaskets are required they should be non-porous, impervious to grease and cooking oils and withstand temperatures experienced within the extract hood.
- For duct work serving water wash or water mist filtration systems should slope back to the canopy with a gradient of 1 in 50.
- Wherever possible duct work should not pass through any fire barriers.
- Duct work should take the most direct route to the exterior of the building with the minimum number of changes in direction and possible grease traps.
- No other systems should be connected into the kitchen extract system.
- Where the captured air cannot be discharged immediately fire rated ductwork may be required.
- Where supply air discharges directly into or downwards across the face of the canopy fire dampers should be installed in the supply spigot and where the duct penetrates the kitchen fire compartment. This prevents air fuelling the flames and/or acting as an exhaust route for fire.

- Duct velocities should be as follows:

| | Supply (m/s) | Extract (m/s) |
|---|---|---|
| Main runs | 6 – 8 | 6 – 9 |
| Branch runs | 4 – 6 | 5 – 7 |
| Spigots | 3 – 5 | 5 – 7 |

- All internal surfaces of the ductwork should be accessible for cleaning and inspection. Access panels should be installed *at 2.0* m *centres as recommended by DW172* and should be grease tight using heat proof gasket or sealant.

To minimise noise emissions from ducts:

- *Duct with stiff walls will vibrate less than a flexible one and will therefore have lower noise attenuation and break-out noise.*
- *Circular ducts have lower attenuation than rectangular ducts, as circular ducts have greater wall stillness*.
- Lined ducts, including bends, elbows or spigots, may be required if noise reduction is necessary.

## 4.4 Dampers

Volume control dampers are often necessary but should be kept to a minimum and incorporate the following features:

- For extract systems, the damper blades should ideally be fabricated from stainless steel.
- The operating mechanism should be outside the air stream and be capable of withstanding the higher air temperatures associated with kitchen extract systems.

In accordance with BS 9999, fire dampers must not be used in the extract system from a kitchen as the fire authorities may use the extract fan to clear smoke from the kitchen.

Where fire dampers may be required on the supply side, the following points should be considered:

- The damper should be of a robust construction suitable for its application and complete with an installation frame where appropriate.
- Due to the additional difficulty of working over hot cooking equipment, particular care should be taken when positioning access panels.
- A visual or audible alarm should be considered if the unit is in a remote location.

## 4.5 Fans

Kitchen ventilation systems often have relatively high resistance against which a fan has to operate. Therefore, fans need to be sized to cope with a design pressure of a minimum plus a minimum additional 10% pressure margin. Care must to be taken:

- to ensure operational changes e.g. build-up of dirt on mesh filters are taken into account; and
- if changes are made to the ventilation system that may alter the operating pressure.

To overcome such changes variable speed control or balancing dampers may be used. A range of impeller designs is available as follows:

- Backward curved centrifugal, mixed flow or axial flow impellers are preferred as they are less prone to imbalance and are easier to clean and maintain due to their open construction.
- Fixed or adjustable metal impellers are recommended.



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- Lightweight multi-vane or plastic–type impellers can warp and are prone to collecting grease. Although plastic bladed fans can be used in non-grease, low temperature situation.

The fan must be able to operate at between 40°C and 60°C at 95% relative humidity. Motors should be rated to IP55[4]. Where fan motors sit within warm moist air streams, they should be upgraded to withstand more onerous conditions. To avoid excessive temperature build-up, temperature detectors should be fitted.

*An audible and/or visual indicator should be included to warn of fan failure.*

Drain holes, *fitted with breather plugs and easily accessible so they can be kept clear,* should be provided at the lowest point in the fan housing to remove condensation. Care needs to be taken to ensure that the drain hole does not downgrade the Index of Protection (IP) of the motor.

Dual or variable speed regulation are widely used. The fan must always operate at its design duty, especially when grease is being produced. A minimum extract level should be set within the speed regulator to ensure that, even at low speed, an adequate rate of ventilation is maintained. Speed regulation should be applied to both make-up air and extraction air. Speed regulation cannot be employed with water wash/cartridge systems as flow rates are fixed.

*In accordance with BS 6173 ("Specification for installation and maintenance of gas-fired catering appliances for use in all types of catering establishments")*, make-up and extract fan operation should be interlocked with gas supply, so that gas supply is switched off if the fans fail. Fans should be isolated when a fire suppression system is activated.

The connection between ductwork and fan housing should be suitable for use in grease-laden atmospheres and at duct temperature. Joints must be clamped or bonded to prevent air leakage. Under fire conditions the material should have a minimum integrity of at least 15 minutes. The advantages and disadvantages of different fan types are summarised in Table 8.

*For fans serving canopies above solid fuel burning appliances, the motor must be out of the airstream and impellers must have metal blades.*

*The high temperatures commonly seen in a solid fuel system can reach 260/300°C. This can lead to failure of the fan motor bearings and other components which cannot withstand the heat.*

**Table 8: Advantages and disadvantages of different fan types**

| Fan Type | Advantages | Disadvantages |
|---|---|---|
| Centrifugal Fan Sets (Direct driven) | • Large range of pressure and volume characteristics<br>• No temperature limitations<br>• Robust and easily maintained<br>• Adaptable to change in system requirements with pulley/motor changes<br>• Standby motors can be more readily fitted | • Expensive<br>• Requires more space than is usually available in the kitchen<br>• Drive belt models require regular belt maintenance<br>• Forward curved impeller fans should only be used for supply systems |
| Bifurcated Fans | • Robust with no temperature limitations<br>• With motor out of air stream this fan is still considered one of the safest options with high temperatures<br>• Easily installed into a ductwork system<br>• Robust and easily maintained | • Less expensive then centrifugal fan but not cheap<br>• Heavy in construction and not always easy to support<br>• Too noisy for siting within a working environment |

[4] *IP (or "Ingress Protection") ratings are defined in international standard EN 60529 (British BS EN 60529:1992, European IEC 60509:1989). They are used to define levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies (tools, dirt etc.) and moisture.*

| Fan Type | Advantages | Disadvantages |
|---|---|---|
| | | • In-duct noise requires abatement<br>• Restricted range of resistance capability<br>• Standard unit not readily available with speed regulation |
| Belt Driven Axial Fans | • Compact<br>• Extensive duty range when operated in series, adequate for kitchen use<br>• Few temperature limitations<br>• Easy installation into ductwork<br>• Less expensive | • Drive belts and other components require regular maintenance<br>• Less robust than previous fans |
| Axial Fans (Metal Impellers) | • Compact<br>• Extensive duty range when operated in series, adequate for kitchen use<br>• Easy removal for cleaning and maintenance<br>• Cheaper option than previous items unless multiple units are required. | • Temperature limitations<br>• Less robust than belt-driven or centrifugal fans |
| 'In-Line' Centrifugal and Mixed | • Compact<br>• Good duty range, adequate for kitchen use<br>• Less expensive than previous items<br>• Easy removal for cleaning and maintenance | • Temperature limitations, but still suitable for kitchen use<br>• Less robust than previous models<br>• Forward curved fans should only be used for supply systems |
| Roof Extract Fans (Vertical Jet Discharge with Centrifugal Impellers) | • Compact<br>• Good temperature range when motor is outside of air stream<br>• Easy removal for cleaning and maintenance<br>• No space restrictions<br>• Good external appearance<br>• No discharge ductwork required | • Temperature limitations, but suitable for kitchen use.<br>• Requires good roof access for maintenance<br>• More expensive than in-line/axial models |

*Note BESA DW172 recommends the use of Centrifugal, Bifurcated and Axial Fans.*

The noise characteristics of the various fan types are presented in Table 9.



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**Table 9: Noise characteristics of different fan types**

| Fan Type | Noise | Description |
|---|---|---|
| Centrifugal | Lower frequencies | Air enters axially and is discharged radially. |
| Axial | Mid–range frequencies | Air enters and leaves the fan in a straight–through configuration. |
| Mixed flow | Lower frequencies | The air path is intermediate between axial and centrifugal. |
| Cross flow | Varied | Long cylindrical impeller with a large number of shallow blades discharging via a long slot. |
| Propeller | Tonal peaks | Similar to an axial fan, but mounted in a ring permitting both radial and axial discharge, higher volume and lower pressure. |

## 4.6 Access Panels for Cleaning

Access panels should be suitable for the purpose for which they are intended. They should incorporate quick release catches, sealing gasket and thermal, acoustic and fire-rated insulation properties equal to that of the duct to which the panel is fitted. The panel and aperture should be free of any sharp edges. Guidance on the required locations for access panels is provided in Table 10.

**Table 10: Location of access panels for cleaning**

| Control Dampers | Both sides |
|---|---|
| Fire Dampers | One side |
| Heating/cooling Coils | Both sides |
| Attenuators (Rectangular) | Both sides |
| Attenuators (Circular) | One side |
| Filter sections | Both sides |
| Air turning vanes | Both sides |
| Changes of Direction | One side |
| In Duct Fan/Devices | Both sides |

## 4.7 Odour Abatement Tools

Odour emissions from kitchens arise from odorous chemicals that are either too small to be trapped by coarse filtration or are present in the gas phase. The degree and type of odour control required is dictated by:

- size of the cooking facility;
- type of food prepared;
- *cooking method used*; and
- location of the premises.

The greater the potential risk of causing harm to the amenity or causing a nuisance the more effective the odour abatement must be. In certain circumstance where local planning requirements restrict the use of tall stacks more emphasis must be placed on odour abatement.

### *4.7.1 Pre-conditioning of extracted air*

*Emission control system tend to be considerably less effective if the air passing through the ductwork is too hot:*

- *At high duct temperatures grease/fat/moisture is less likely to form droplets and will not be removed by grease (particle) separators (e.g. fabric filter, ESP) located close to the extraction hood.*
- *If the high temperature persists down the duct, the grease/fat may either pass through the odour control stage (e.g. the carbon filter) with little odour control having occurred or may condense and 'blind' the leading face of the carbon filter.*

*There are various options for pre-conditioning the extracted air to reduce the heat content in the ductwork:*

- *By introducing ambient air to dilute the airstream and reduce the temperature of the air in the duct. The downside of doing this is that greater energy is required to move the increased air volume which in turn will require bigger noisier fans, larger ductwork and up rated, larger filtration control equipment.*
- *By installing a cooling system based on a finned coil within the duct work and passing a suitable heat exchange medium through it to remove the heat. In such systems there are energy considerations for cooling the airstream and maintenance considerations with equipment becoming blocked when exposed to smoky greasy air streams.*
- *By installing a cold water misting system to run continuously during cooking operation. Vapour entering the canopy passes through the mist which causes the grease particles in suspension to drop in temperature, solidify, increase in size and drop to a drainage trough from which it is flushed to a drain. The mist system is also suitable for solid fuel appliances where the mist will cool the extracted gas and also extinguish hot embers that may be drawn up into the canopy.*

**Figure 7: Example of cooling coil used to pre-condition extracted air**



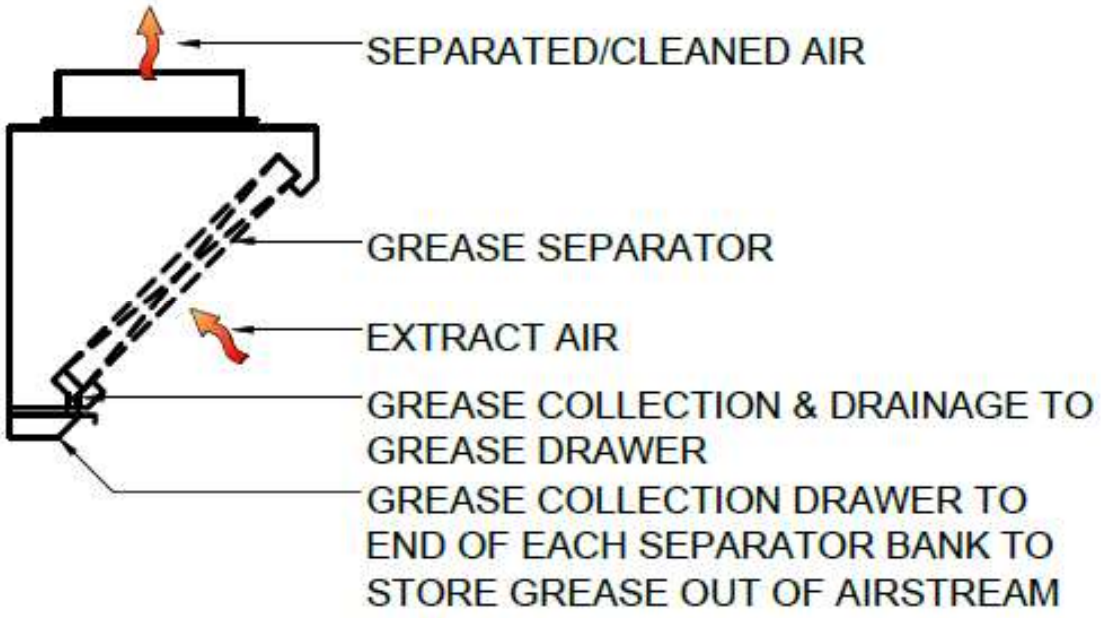
### 4.7.2 Coarse or Grease separation

*The effective removal of particulate matter from the extracted air is a crucial step as it removes oil/grease odours from the extracted air. Its removal (i) prolongs the operational life of the odour control equipment and (ii) minimises cleaning/maintenance requirements.*

*The design of grease separators should meet the following minimum standard:*

- *Grease separators shall be manufactured in stainless steel.*
- *Grease separation is primarily used in extract systems for the removal of flammable grease deposits. Removal of grease also removes odour from the extract flow and so improves the performance of odour abatement.*
- *The grease extracted by the separators must be collected and removed so that it will not accumulate in either the canopy plenum or the ductwork system, or, fall back onto the cooking surface. In the event of fire, the filter shall also limit the penetration of flames downstream into the canopy plenum.*
- *The separator shall be easily removable for regular cleaning.*
- *Primary grease separators should be flame retardant and capable of removing as much airborne particulate (i.e. grease, oil etc) from the air stream as possible, to maximise the separation process within the canopy.*
- *Secondary mesh type impingement filters can be incorporated to the rear of the primary separators providing they do not affect the fire arrestance.*

**Figure 8: Typical airflow through a grease filter housing**




Filtration can be provided by either washable or baffle type of filters and are usually positioned at the point of extract within a filter housing. Disposable grease filters should not be used. A range of coarse filters are available, and the characteristics of these filters are summarised Table 11.

**Table 11: Summary of characteristics of some common coarse filters**

| Filter Type | Recommended Face Velocity (m/s) | Typical Efficiency* | Advantages | Disadvantages |
|---|---|---|---|---|
| Mesh **(use as secondary separator only** | 2.0-5.0 | 40-50% | • Inexpensive<br>• Low pressure drop when<br>• clean | • Grease held in air<br>• stream<br>• Variable pressure<br>• drop<br>• Potential fire hazard |
| Baffle | 4.5 - 5.5 (at slot) | 65 - 80% | • Inexpensive<br>• Non-overloading pressure drop | • Higher pressure drop than mesh filters |
| Cartridge | 4.5 - 5.5 (at entry) | 90 - 95% | • Higher efficiency<br>• Non-overloading pressure drop | • High pressure drop<br>• Special plenum fabrication required |
| Water Wash | 4.5 - 5.5 (at entry) | 90 - 95% | • Higher efficiency<br>• Non-overloading<br>• Low maintenance | • Expensive<br>• Very high pressure drop<br>• Hot water supply and drains required |
| Cold Water Mist | 4.5 - 5.5 (at entry) | 90 - 98% | • Very efficient<br>• Non-overloading<br>• Low maintenance | • Expensive<br>• Very high pressure drop<br>• Hot and cold water supplies and drains required |

*manufacturer's data.

**Mesh or impingement filters**

These filters comprise a number of layers of galvanised or stainless steel mesh within a steel housing. Grease laden air is deposited onto the non-corrosive mesh. Their application is limited to low level grease production. A mesh of less than 50 mm is unlikely to be effective. The performance varies with use and temperature and may need to be cleaned twice weekly to avoid grease build-up. Mesh filters provide no barrier to flames and therefore should not be used either at low level or in applications where there is a risk of fire. A mesh filter should be installed at an angle of not less than 45° from the horizontal.



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**Figure 9: Example of a mesh filter [no longer recommended for primary grease separation].**



**Baffle filters**

These filters comprise of a number of interlocked vanes which when assembled, form a two-pass grease removal device. Grease laden air passes through the filter and by a series of forced changes in direction and velocity, the grease becomes separated from the air stream and is deposited on the vertical vanes. The deposited grease is then drained off through weep holes spaced at intervals and into a collection drawer that has to be cleaned at regular intervals. The size of the grease drawer should be sufficient to suit the type of cooking and frequency of cleaning. The grease drawer must be isolated from the air stream otherwise re-entrainment can occur.

The resistance to air flow in a baffle filter is higher than with mesh filters, but pressure drop remains constant and blades provide a barrier in the event of a flash fire. A baffle filter should be installed at an angle of not less than 45° from the horizontal.

**Figure 10: Typical Baffle filter**



**Cartridge filters**

Installed horizontally, cartridge filters comprise a high velocity slot opening on to a series of baffles which cause air to change direction four times compared to only twice in a conventional baffle filter. The cartridge filters are installed over the full length of the extract plenum and should be sloped to allow trapped grease to fall through a drain to a grease drawer. These filters are intended for heavy grease loads. Having a higher velocity enables lower air volumes to be used. Air balancing is required to prevent carry over of grease.

**Water wash systems**

These systems comprise an extract plenum similar to the cartridge filters, except that there is an inbuilt self-cleaning system. This provides routine maintenance as well as fire protection to the plenum and duct. A water wash canopy is operated by a control panel. In its simplest form it is started and stopped at the beginning and end of the cooking process each day. Automatic systems are available. Cleaning is achieved by spraying the interior of the canopy extraction system chamber with pressurised hot water containing detergent. The waste water flows from the system to a drain.

**Continuous cold water mist systems**

These systems are similar to water wash system in which grease extraction is enhanced by means of a cold water spray that runs continuously during cooking operation. The vapour entering the canopy passes through the mist, which causes the grease particles in the suspension to drop in temperature, solidify, increase in size, and drop via a drain trough to a drain. These systems are particularly suitable for solid fuel appliances where the mist will extinguish hot embers that may be drawn into the canopy. The cleaning regime is the same as for a water wash system.

**Figure 11: Example of water spray self-cleaning hood system**



### 4.7.3 Fine filtration

A basic filtration system can be used to deal with a low intensity odour problem, but more usually will form a protective pre-treatment step before an activated carbon step.

A typical filtration system may be supplied with three stages of progressively more efficient filtration. This would include:

- Disposable pleated filter acting as a secondary grease filter to protect the main pre-filters. This filtration stage may be manufactured from non-woven synthetic fire retardant material.
- Medium efficiency bag filter ideally achieving a capture efficiency of 95%.
- Absolute filter ideally achieving a capture efficiency of 99%.

With high efficiency or absolute filters high pressure drops can be expected. This system will not deal with the gaseous phase odours and may be preceded by a carbon filter. The filtration step protects the carbon filter from becoming fouled with grease and particulate matter. Plate 6 (Annex E) shows a pleated filter and a bag filter.



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**Figure 12: Various types of filters used within the extraction system.**



***Bag filter*** *- generally used as a second stage filter to remove smaller particles of grease. Not capable of removing smoke efficiently. This filter needs to have a pre filter to stop it blocking prematurely.* ***This is not an Odour filter****.*



***Panel filter –*** *generally used as first stage filter to remove some of the larger grease particles not removed by the canopy filter. This filter will not remove any smoke.* ***This is not an Odour filter****.*



***HEPA filter –*** *this is a sub-micron filter used for removing some smoke (depending on grade). It must have panel and bag pre filtration. These filters will block quickly if not protected.* ***This is not an Odour filter****.*

Various filter types and classifications are available. A list of available filters is summarised Table 12: together with their rating and quoted efficiencies.

**Table 12: Filter types classification**

| | | |
|---|---|---|
| ISO 16890[5] | ISO 16890 | EN779[6] |
| High End | Low End | -- |
| None | none | G1 |
| Coarse 40% | Coarse 30% | G2 |
| Coarse 50% | Coarse 40% | G3 |
| Coarse 70% | Coarse 50% | G4 |
| ePM10 60% | Coarse 85% | M5 |
| ePM2.5 50% | ePM10 75% | M6 |
| ePM1 75% | ePM1 50% | F7 |
| ePM1 80% | ePM1 70% | F8 |
| ePM1 85% | ePM1 80% | F9 |

### 4.7.4 Electrostatic precipitation

Electrostatic separators (ESP) are used to separate solid or liquid particles from ventilation air. The particles distributed in the gas are electrostatically charged so that they stick to collection plates. Within an ESP there are five individual stages:

- charging of the particles in the ion field;
- transport of the charged particle to the collecting plate;
- collection and film formation on the collecting plate;
- removal of the oil film from the collecting plate to a sump or holding area; and
- removal of the collected oil and other particles during service.

The main components of an ESP are the filter housing, power supply, ioniser and collecting electrodes

*The use of an ESP in a kitchen extract system requires some design specifics which are operationally important, examples of which are below:*

- *The ESP must be sized to treat the grease loading so that the ESP system acts as the grease collector. The ESP should not simply act as an ioniser that then uses the duct and other external surfaces to collect the ionised grease. This design requirement improves odour control and fire safety.*
- *The unit should have a sump that is capable of holding the grease collected. This sump should be sealed to prevent grease leakage. Units without a sump will result in grease leaking out into ceiling voids or onto the roof and creating a hazard. Ideally a fully welded case construction should be used to avoid leaks.*
- *Use of a High Voltage system with a negative corona discharge has the advantage that it also produces Ozone which will assist with odour control.*
- *The ESP circuit should be designed with a safety cut off so if the collector plates are bridged (short circuited) or damaged the power circuit will switch off. Ideally the system should have an automatic restart function.*
- *Where the system is installed outside the duct work housing it should be designed to the IP rating of the external installation, this avoids the need to add additional protection.*
- *For highly grease/smoke laden air a multi pass ESP system should be considered.*

[5] ISO 16890-1, Air filters for general ventilation – Part 1: Technical specifications, requirements and classification system based upon particular matter efficiency (ePM).
[6] EN 779:2012, Particulate air filters for general ventilation – Determination of the filtration performance.

ESPs can be designed to eliminate extensive quantities of smoke, giving collection efficiencies of up to 98% between 1 $\mu m^3$ and 0.01 $\mu m^3$. The effectiveness of an ESP is limited to removing the grease that adheres to smoke and should not be considered to be a primary source of odour control. Where installed, pre-filters should be fitted upstream of the ESP to provide some protection from large contaminants that may pass through the grease filters. The types of ESP that are used to treat kitchen ventilation emissions are less effective at temperatures over 60°C and are not suitable for relative humidity levels of above 75%.

Where an ESP is used to treat oily fume the collecting plates can become fouled, rendering them less effective. Monthly servicing should be the minimum requirement and they should be cleaned immediately as soon as there is any sign of deterioration in fume control. Some manufacturers have incorporated automatic self-cleaning mechanism into their equipment to facilitate automatic daily cleaning.

**Figure 13: schematic drawing of an electrostatic precipitator**

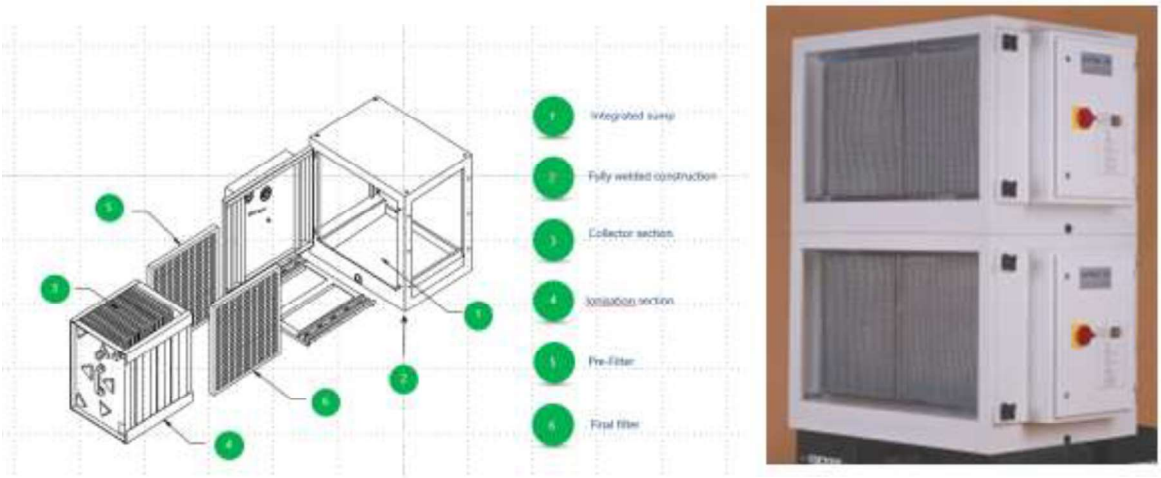


**Figure 14: Odour control scheme employing an electrostatic precipitator, operating alongside grease separation and UV-C/Ozone**






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### 4.7.5 Adsorption

Adsorption is a process involving the capture of airborne components on to a fine particulate active surface. There are a number of possible active materials that can be used for general application but activated carbon is by far the most widely used. Other materials used are: Zeolites, silicas and polymeric resins. Activated carbon systems are available that include impregnated oxidising materials e.g. chlorine dioxide or permanganate, although such materials tend to be more expensive.

Adsorption is a dynamic process in which gaseous molecules impinge on the surface of the solid material and remain there for a period of time before desorbing again in to the gas phase. An equilibrium is established between the adsorption and desorption processes. For the majority of odorous emissions, where the organic mass emission is low, the equilibrium amount of adsorbed material increases rapidly with small increases in concentration. Thus, the adsorption process allows a positive driving force for adsorption up to a point where the equilibrium position changes and the odour concentration in the outlet exhaust increases. This is the point at which the carbon has been fully utilised and there are insufficient active sites remaining for further adsorption. The adsorption bed has thus reached the end of its useful life and will require replacement or regeneration.

The adsorption process, ensuring odorous components adhere to the matrix, can be physical e.g. adsorbed molecules are held to the surface by Van der Waals forces, or chemical e.g. chemical bond form between the adsorbed molecules and the surface. Adsorption, using carbon as a matrix, can be a very effective abatement option, with odour removal efficiencies in the range 80 to 99% achievable.

Design considerations for adsorption systems include:

- Residence time typically of between 0.1 to 0.2 seconds for gas streams containing relatively low concentration of odorants (this can rise to 1 to 3 seconds for gas streams containing relatively high concentration of odorants).
- A temperature of 40°C is considered as an upper limit for an adsorption process.
- The efficiency of activated carbon is reduced at a relative humidity above 75%. The preferential adsorption of water can lead to condensation within the bed, thus rendering the carbon inactive.
- Linear velocities through the bed can range from 0.1 to 0.6 m/s. The higher linear velocities are only suitable for dealing with compound that has higher adsorption rates.
- Particles in the gas stream to be treated seriously interfere with the efficiency of the carbon bed, as well as increase the operating pressure drop. If particulate or condensing material is present the use of carbon filtration is very questionable.

Manufacturer's guidance is available to determine the appropriate operating parameters for different types of commercial kitchen situations. Table 13 summarises the required residence times for various cooking processes.

**Table 13: Required residence times for various cooking processes**

| Application | Capacity Required | Residence Time (seconds) |
|---|---|---|
| Canteen, normal kitchen and restaurants | 'Normal' | 0.1 – 0.2 |
| Kitchens producing large amounts of fried foods or concentrated cooking of burgers | 2 times 'normal' | 0.2 – 0.4 |
| Indian restaurants etc. (i.e. curry, spices etc.) | 3 times 'normal' but 4 times in extreme cases | 0.3 – 0.6 (up to 0.8 in extreme cases) |
| Excess of onions or garlic smells from cooking | 3 time 'normal' but 4 times in extreme cases | 0.3 – 0.6 (up to 0.8 in extreme cases) |

*Note the residence time presented here assumed that the particulate matter associated with grease and/or smoke has been adequately abated and that the carbon filter just has to deal with the residual odour.*

### 4.7.6 Wet scrubbing (absorption) systems

*Section of scrubbing has not been reproduced as this technology is not suited to the relatively small-scale nature of most commercial kitchen situations. The Authors were unable to find example applications to justify continued inclusion of this text.*

### 4.7.7 In-line oxidation systems

Oxidation using ozone and/or activated oxygen ions has been used to treat odour emissions from commercial and industrial kitchen processes. Such systems use electrostatic field or UV lamps to convert oxygen in the ambient air to oxygen ions with a small amount of ozone. A mixture of oxygen ions and/or ozone is then injected into the airflow of the exhaust duct or into a reaction chamber where reaction occurs with the odour and other pollutants. Odours are oxidised in the reaction chamber and the treated air is expelled.

Ozone and oxygen ions are inherently unstable, and high moisture or temperatures above 35°C will promote ozone and oxygen ion degradation.

A typical dose rate for an ozone system treating exhaust gases from a restaurant will be 1 ppm/. Average reaction times to completely oxidise material can be as high as 20 seconds. This reaction time needs to be taken into account when designing duct work downstream of the injection device.

Due consideration needs to be given to the residual ozone that may arise from these systems. Complete degradation of ozone is unlikely to take place within the duct work and therefore extraction system must discharge at high level. There will need to be restricted application of these systems in areas housing multiple commercial kitchens.

**Figure 15: illustration of a UV/Ozone unit as part of a kitchen extract system**



### 4.7.8 Odour neutralising and counteracting agents

There are a number of products on the market claiming that odour emissions can be 'neutralised' by the addition of certain components into the air stream. The exact definition of the neutralisation is slightly misleading and generally refers to a chemical reaction in which the odorous molecule is rendered non-odorous by chemical reaction with the added ingredient.

The neutralising agent is incorporated into an air stream by aspiration. A number of the products on the market refer to the use of 'essential oils' derived from plants, trees, wood etc. There are a number of mechanisms postulated as to what occurs during the 'neutralisation' process, although the exact mechanism(s) are not fully understood. Particular mechanisms suggested include Van der Walls forces, where the molecule weakly bonds on to the odorous component, or chemical reaction. Because the mechanism of this system is not well understood it is difficult to define performance characteristics. Manufacturer's data suggests that odour removal rates of 90% can be achieved when used in conjunction with appropriate particulate abatement.

Counteracting agents, as the term implies, are added to the air stream and result in a reduced response to the odour by the human nose by reducing the perceived intensity. Thus in effect, the counteracting agent desensitises the human nose and renders the discharged odour undetectable by the olfactory sensors in the nose. As this type of system does not remove odour the level of odour removal is likely to be negligible.

With these systems correct chemical dosing is critical as the chemical agent that is injected into the air stream can also give rise to odour annoyance. Such systems should be avoided where the dispersion of the discharging plume is severely impeded, e.g. in courtyard situations.

**Figure 16: Example of an odour neutralising unit**



### 4.7.9 Stack

Inadequate height of the discharge stack is one of the main reasons the emissions from a kitchen gives rise to odour nuisance. The stack design is paramount to achieving good dispersion. Good stack dispersion requires:

- The effective stack height (discharge height plus plume rise) must be high enough to ensure that adequate dilution takes place before the plume interacts with a receptor.
- Discharge velocity influences the plume rise and therefore the effective stack height. The effective stack height can be estimated from:

$\Delta H = 3W.d/U$

where,

W (m/s) is the efflux speed at the chimney top

U (m/s) is the wind speed at the height of the stack

d (m) is the internal diameter of the stack

Ideally W/U should be greater than 4, but this may be impractical. If W/U is less than 1.5, then down wash will occur resulting in a reduced effective stack height. *In essence, the exit velocity should never be less than 1.5 times the wind speed. As the average wind speed in the UK is approximately 4.8m/s, the efflux velocity should never be less than 7.5m/s and preferably should be about 15m/s.*

- The discharge to be outside the wake of nearby buildings. Discharging ventilation air below a roof ridge may result in excessive entrainment within building down wash. In certain situations, the use of high velocity discharge systems can force the discharging plume out of the building wake.
- The flow to be unimpeded. This can increase the static pressure, noise, potential down draught and risk of re-entry of the exhaust back into the building. Alternative stack terminals are available and include:

a) terminals without integral drains e.g. reducing cone, solid top cones; and

b) terminals with integral drains e.g. open top cone and drain, induction types and sleeve type.

- Straight and vertical discharge.

Figure 17 shows examples stack terminals with integrated drains

Guidance on stack requirements for commercial kitchens varies between Local Authorities. The range of guidance issued by Local Authorities is summarised below:

- Guidance on the minimum stack height ranges from:

a) 1 m above the eaves of the premises and/or above any dormer window;

b) 1 m above ridge height of any building within 15 m; and

c) low level discharge should be avoided.

- The height of external ground level should be taken into account when setting stack height. This is particularly important on rising ground where houses may be located above the discharge.
- A stack should be positioned to be as far as possible from the nearest residential accommodation.
- A stack discharging into a semi-enclosed area such as a courtyard or the area between back additions should be avoided.
- Use of Chinaman's hats or other cowls *which impede the upward air flow* is not recommended. *The exception to this is the use accelerator cowls which promote upward velocity and increase the effective stack height.*
- The prevailing wind direction should also be considered in the ducting positioning.
- The ducting should be rigid in construction to prevent the transfer of noise by vibration.
- Large section ducts may need bracing or stiffeners to prevent drumming.

In certain instances, restriction on stack height might arise, for example:

- Where an A3 premises is a listed building and a visible stack is prohibited;
- Where an A3 premises is located within a conservation area and a visible stack is prohibited; and
- Operators of the A3 premises do not have legal right to attach a stack to upper floors of building.



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**Figure 17: Examples of best stack design**

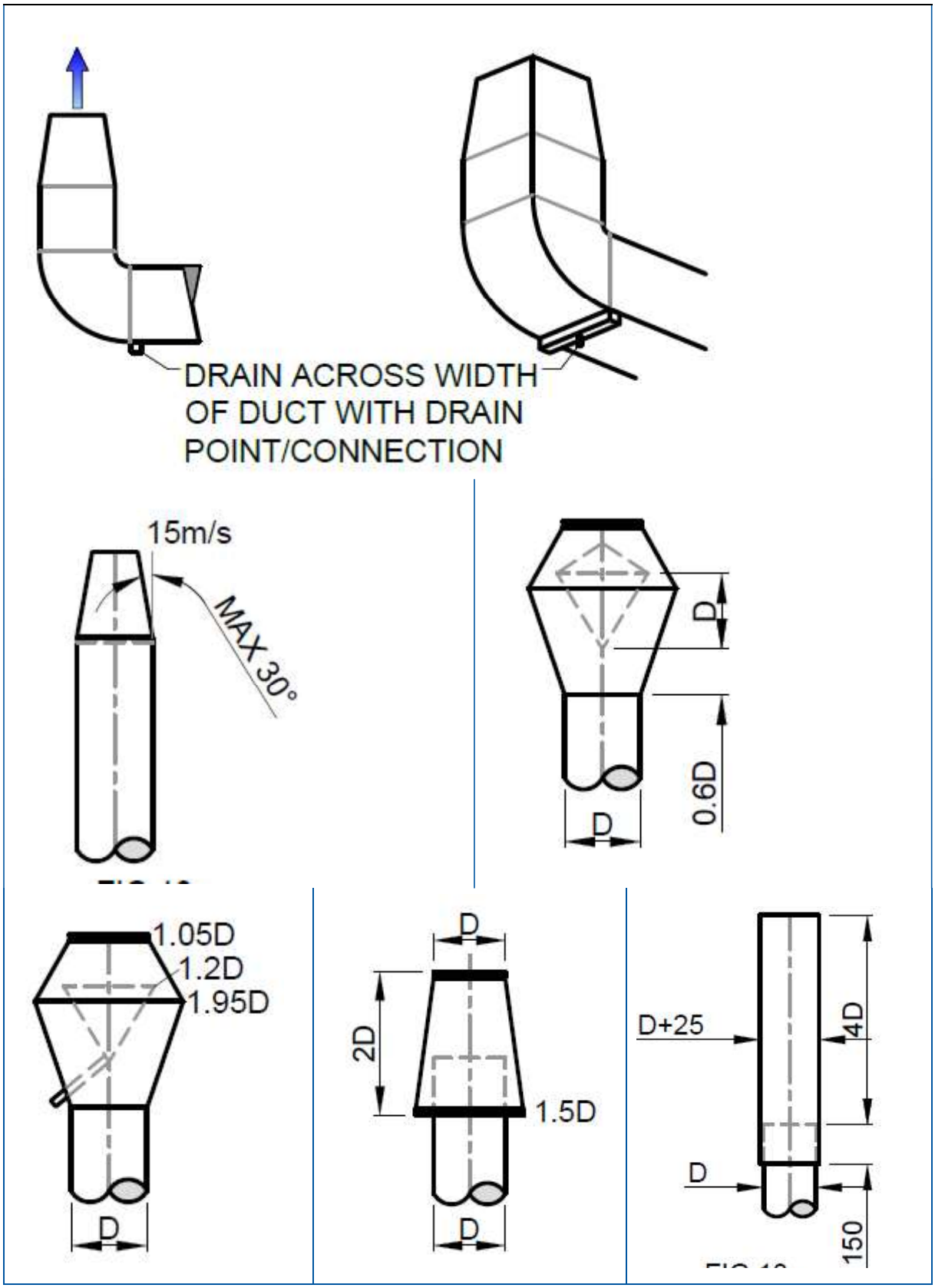


**Figure 18: Case study material: examples of poorly designed discharges from commercial kitchens**

| | |
|---|---|
|  | Vent releasing horizontally, Note the grease leaking from the joint. May suggest a poor maintenance regime is applied. |
|  | Visible plumes arising from a restaurant indicating that grease emissions are not abated.<br>Vents not releasing vertically |
|  | |
|  | Horizontal release from the extraction system at first floor level |



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### *4.7.10 Package abatement plant with treated air recirculation*

*Commercial products are now being developed to place all of the elements of a complete emission control systems into packaged unit with a view to recirculating treated air back into the kitchen. These systems are suited to kitchen developments that have severe restrictions on the discharge stack that can be used, or where bulky control plant external to the kitchen is undesirable. Such system may have application where:*

- *The kitchen can be designed using electric appliances. This minimises the rate of ventilation required to avoiding carbon dioxide/monoxide building up in the kitchen due to combustion of natural gas.*
- *There is no or very limited route to atmosphere (e.g. within an airport terminal, submarine).*
- *Conservation controls limit external structures.*

*The units typically contain:*

- *Primary filter sets to provide secondary grease separation; and*
- *Activated carbon canisters for odour removal.*
- *A ductwork arrangement to recirculate some of the treated air back into the kitchen.*

*Recirculating filtration systems do have a place, but they are limited and are unlikely to meet the requirement for BPM. Firstly, they should only be considered for use with electric cooking appliances and not for gas, wood fired or other combustible processes. The filtration equipment needs to be multi stage with a high level of efficiency which makes it both expensive and bulky. Many of the applications where a recirculating system would be suitable are in premises where there is insufficient space to use them.*

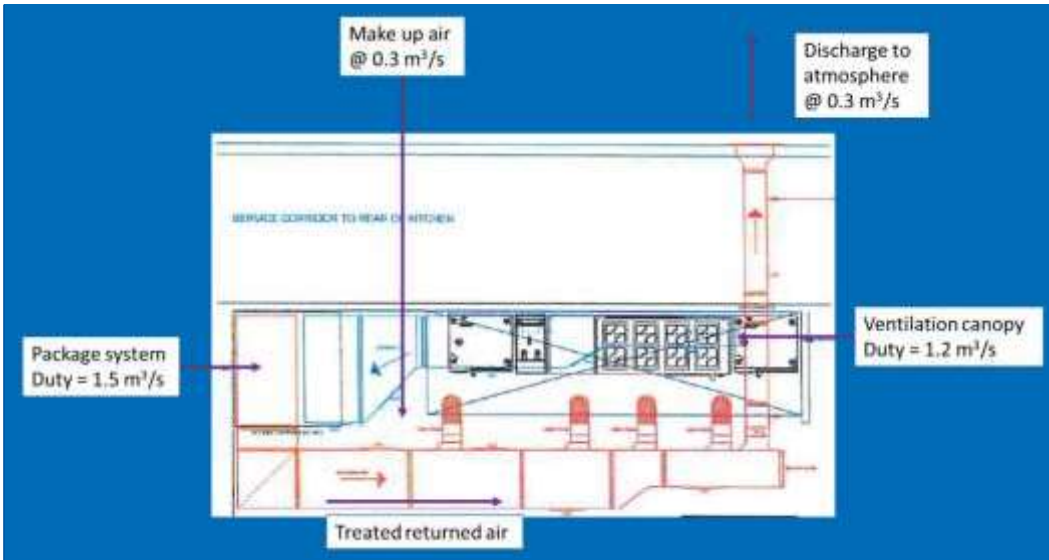
Case study 4 – design of kitchen with a package abatement plant

Due to changes in circumstances relating to the ownership of the neighbouring property the operator of a kitchen preparing Mediterranean type food was no longer able to discharge air through their existing extract stack as part of the stack crossed the boundary between the two properties.

One of the solutions considered was the redesign of the kitchen to accommodate a packaged abatement system. This involved:

- Changing cooking appliances from gas to electric. This reduced the extraction air flow requirement by about 30% (see convection calculation method in DW172);
- Installing a package abatement plant within the kitchen area;
- Designing the ductwork to allow returned air to be reintroduced into the kitchen area to provide supply air.

The practical benefit is that only a small volume of treated air need be released from a small wall vent.




The other practical considerations with this design are:

- The loss of space taken up with the package abatement equipment within the kitchen itself.
- The high cost of retrofitting the kitchen with new appliances;
- The need to training staff to cook with the new appliances;
- The potential need for an air conditioning system to condition the returned air to remove residual heat.

On balance, although the design basis of the package system is comparable to control systems used elsewhere, it is likely to be much more expensive than installing a conventional system and therefore may exceed the requirement of BPM.

### 4.7.11 Summary of grease and odour mitigation measures

The advantages and disadvantages of various odour mitigation approaches are summarised in Table 14.

**Table 14: Summary of odour mitigation measures that can be applied to treat kitchen ventilation air**

| | Advantages | Disadvantages |
|---|---|---|
| Grease filters | • Filters are easy to clean and maintain | • *Only relatively coarse filtration*<br>• Performance rapidly decline if not regularly maintained and cleaned |
| Fine or pre-filters | • Low capital cost<br>• Filter change easily carried out<br>• Low-tech alternative to ESP | • Regular replacement required<br>• No gaseous odour removal<br>• High pressure drop<br>• *High cost of maintenance* |
| ESP | • Low pressure drops<br>• Effective down to very small particle size<br>• No filter replacement necessary<br>• *Some gaseous / odour oxidization possible if using negative corona discharge* | • Medium capital cost<br>• Potential fire risk unless safety features present *(e.g. will shut the supply down with excessive arcing).*<br>• High-tech equipment requiring specialist maintenance |
| Carbon adsorption | • High efficiency up to 95% under optimum conditions<br>• Moderate operating costs<br>• Relatively low capital cost<br>• Simple design | • Filter blockage requires regular replacement<br>• Must be used with fine particulate filtration<br>• Efficiency decreases with use<br>• Not effective against particulate components<br>• Temperature of input must be below 40$^{o}$C<br>• Sensitive to high moisture above 75%RH<br>• Constant and detailed maintenance required |
| Ozone and UV systems | • Minimal pressure drop<br>• Effective | • Requires pre-filtration<br>• Medium capital cost<br>• Efficiency falls off as UV lamps become dirty<br>• Dilution and dispersion of residual necessary high energy usage<br>• Long residence time required |
| Odour counteraction and neutralisation | • Minimal pressure drop<br>• Minimal maintenance | • Requires pre-filtration<br>• Medium capital cost<br>• Dilution and dispersion of residual necessary<br>• Efficacy for aromatic cooking sources questionable |
| Stack dispersion | • Low capital and running costs<br>• Good dilution possible | • May require tall structure to eaves or above |

## 4.8 Noise Attenuation

Due to the fact that kitchen extract systems usually operate at sensitive times such as early in the morning and until late at night, the amount of noise generated should be kept to minimum. A range of noise mitigation methods is available, ranging from good design practice through to lagging and silencers (see Table 15) Typical noise transmission pathways in commercial kitchens are presented in Table 16.

**Table 15: Summary of noise reduction methods for various noise sources and transmission paths**

| Path | Description of Transmission path | Noise reduction method |
|---|---|---|
| (a) | Direct sound radiated from sound source to ear.<br>Reflected sound from walls, ceiling, and walls. | Direct sound can be controlled only by selecting quiet equipment. Reflected sound is controlled by adding sound absorption to room and to location of equipment (either wall mounted or barriers). |
| (b) | Air and structure borne sound radiated from casings and through walls of ducts and plenums is transmitted through walls and ceiling into room. | Design ducts and fittings for low turbulence; locate high velocity ducts in non-critical areas; isolate ducts and sound plenums from structure with neoprene or spring hangers. Overclad ducting with absorbent materials |
| (c) | Airborne sound radiated through supply and return air ducts to diffusers in room and then to listener by path (a). | Select fans for minimum sound power; use ducts lagged with sound absorbing material; use duct silencers or sound plenums in supply and return air ducts. |
| (d) | Noise is transmitted through plant/equipment room walls and floors to adjacent rooms. | Locate equipment rooms away from critical areas; use masonry blocks or concrete for equipment room walls and floor. Use acoustic isolators on wall or floor mountings. |
| (e) | Building structure transmits vibration to adjacent walls and ceilings from which it is radiated as noise into room by path (a). | Mount all machines on properly designed vibration isolators; design equipment room for mechanical dynamic loads; balance rotating and reciprocating equipment. |
| (f) | Vibration transmission along pipe and duct walls. | Isolate pipe and ducts from structure with neoprene or spring hangers; install flexible connectors between pipes, ducts, and vibrating machines. |
| (g) | Noise radiated to outside enters room windows. | Locate equipment away from critical areas; use barriers and covers to interrupt noise paths; select quiet equipment. |
| (h) | Inside noise follows path (a) | Select quiet equipment. |
| (i) | Noise transmitted to diffuser in a room into ducts and out Through an air diffuser in another room. | Design and install duct attenuation to match transmission loss of wall between rooms. |
| (j) | Sound transmission through, over, and around room partitions. | Extend partition to ceiling slab and tightly seal all around; seal all pipe, conduit, and duct penetrations. |



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**Table 16: Typical noise transmission pathways in commercial kitchens**

| Noise Source | Transmission Paths |
|---|---|
| Circulating fans; grills; diffusers; registers; unitary equipment in room | (a) |
| Induction coil and fan-powered mixing units | (a), (b) |
| Unitary equipment located outside of room served; remotely located air handling equipment, such as fans and blowers, dampers, duct fittings and air washers | (b), (c) |
| Compressors and pumps | (d), (e), (f) |
| Cooling towers; air cooled condensers | (d), (e), (f), (g) |
| Exhaust fans; window air conditioners; passive vents; open windows | (g), (h) |
| Sound transmission between rooms | (i), (j) |

The following points should be taken into account when designing a ventilation system to minimise noise emissions:

- the fan and its installation should be designed as a complete package for a specific task. Fans generally produce less noise if operated at the optimum efficiency relative to their characteristics;
- fans should be located within buildings at low level, that is, on side walls, rather than in the roofs of buildings, as ground effect and the local topography will far more readily reduce the noise transmission;
- a duct with stiff walls will vibrate less than a flexible one and will therefore have lower noise attenuation and break-out noise;
- circular ducts have slightly higher attenuation than rectangular ducts, as circular ducts have greater wall stiffness and allow less break out of noise;
- lined or lagged ducts, including bends. elbows or spigots, may be required if noise reduction is necessary; and
- the recommended maximum supply and return velocities for grilles and terminals should be applied (see Table 17).

**Table 17: Maximum velocity for supply and return air openings (grilles and terminals)**

| | Permitted air velocity (m/s) | | |
|---|---|---|---|
| | **Critical** | **Normal** | **Uncritical** |
| Supply | 1.5 | 2.5 | 3 |
| Return | 2 | 3 | 4 |

- Silencers may be required where additional attenuation is necessary. A range of silencers is available, and it may be necessary to insert in-duct silencers both upstream and downstream to prevent radiation of fan noise through ductwork. Figure 18 shows examples of dissipative duct attenuators. These should be fitted as close to the fan as possible (but not so close as to lead to a non-uniform air–flow velocity across the face of the silencer). Where this is not possible, the intervening ductwork should be acoustically lagged. It may also be necessary to enclose or lag the fan. Where fans are used to push gases up a stack, silencers containing absorbent material can sometimes be mounted directly on top of the stack. However, where gases are hot, wet or dirty, the infill may need to be protected.
- Acoustic louvres or air splitters on exhausts and inlets can greatly reduce environmental noise. However, their performance can sometimes increase back-pressure or the velocity of the air flow leading to increased noise. Air flows should be carefully managed.



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**Figure 19: Dissipative duct attenuators**

**(a) rectangular, (b) circular (c) rectangular elbow**

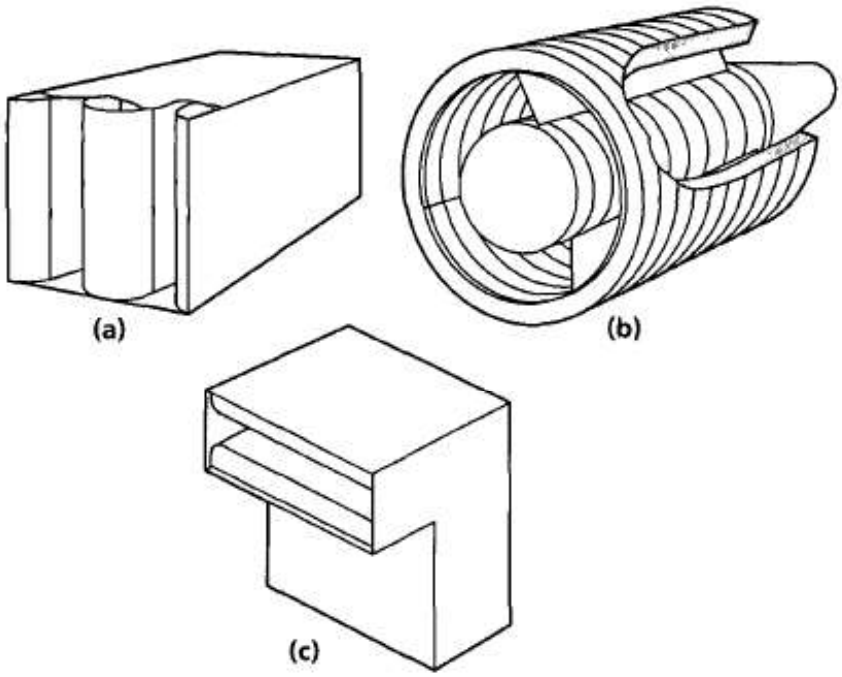



**Table 18: General rules of thumb for selection of ductwork:**

| Duct Type | Advantages | Disadvantages |
|---|---|---|
| Round duct | 1. Efficient way of conveying air with low pressure drop, which translates to less fan horsepower.<br>2. Better acoustic performance because the curved surfaces allow less breakout noise.<br>3. Better aesthetic look (if exposed).<br>4. Lower initial installation cost. | 1. Architecturally difficult to fit compared to rectangular to round ductwork transition fitting from fan coil unit to main duct (if exposed)<br>2. Small height clearance |
| Rectangular duct | 1. Typical rectangular to rectangular connection from FCU to main duct.<br>2. Good height clearance. | 1. High pressure drop.<br>2. Increased noise.<br>3. High installation cost. |

## 4.9 Fire Suppression

The significant presence of flammable grease and related particles contained within kitchen extract systems, combined with the possibility of fire ignition caused by the cooking equipment, creates a hazard level above that which is normally encountered in other ventilation systems.

Where ventilation systems exhaust grease laden air and vapour mixtures from a kitchen, the design should provide an acceptable level of protection to ensure the wellbeing of occupants and fire fighting personnel, and limit the damage to the property and cooking equipment.



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The correct maintenance and use of cooking appliances and ventilation systems should prevent potential fire. It is however important that in the event of a fire it is immediately detected and extinguished and prevented from spreading to other areas of the building.

Fire suppression is the most commonly used form of protection from fire. These systems use agents, which provide protection to the kitchen canopy.

**Chemical systems.** Almost all fire suppression or extinguishing systems use special chemical agents which provide protection to the kitchen canopy. Liquid or dry chemical agents can be used for fire suppression. Liquid agents are favoured as they provide a greater level of cooling and clean up time is quicker.

These systems are activated either manually or automatically in the event of fire. Calibrated thermal fusible links should be located in the extract air path above the cooking equipment.

On activation the mains energy supply should be automatically shut off and terminated. The stored chemical agent will be released into the distribution ductwork and discharged at high velocity through nozzles towards the appliances that require protection. When the extinguishing agent comes into contact with hot greasy surfaces, foam is formed that suppresses fire (saponification).

**Water systems.** These systems are almost identical to chemical systems except the system can only be used where a sprinkler main is available. Nozzles with suitable temperature ratings supplied with water directly from the main sprinkler storage system are used to spray a fine mist of water onto the cooking appliances. These systems can target the area where the fire occurs, so causes less 'down-time'. Using water has a duel function when fighting fires in that the spray absorbs heat generated and becomes steam, which in turn displaces air and starves the fire of oxygen.

**Carbon dioxide.** Systems are available but are expensive.

Detailed advice on fire protection systems is laid down in BS 5588: Part 9 and Association for Specialist Fire Protection publication 'Fire rated and smoke outlet ductwork: An industry guide to design and installation'.

## 4.10 Financial Considerations

### 4.10.1 Cost of odour abatement equipment

The cost of odour abatement equipment is of paramount importance when a kitchen ventilation system is designed for new premises (to protect the amenity) or upgraded to minimise the impact of an existing premises (to prevent statutory nuisance). The factors that dictate the level of expenditure that an operator can be expected to pay will depend on a number of factors:

- Size of the cooking facility;
- Type of food prepared;
- Type of cooking appliances used; and
- Compliance with the requirements of Best Practicable Means.

For the purpose of this report, interpreting Best Practicable Means must take into account the following:

- **Local conditions and circumstances** will vary from case to case and will depend on the proximity of residential properties and local planning restrictions.
- **The current state of technical knowledge** for controlling odour is described in section 4.7 of this report. It is recognised that developments are continuously being made in the field of emissions control, so due regard must be given to any new techniques/technologies that can be designed to suit the commercial kitchen situation.
- **The financial implications** of odour control must be weighed against the harm caused by emission of offensive odour to local residents.
- **Operation of the site** for example, the design, installation, maintenance and manner, periods of operation of plant and machinery, and the design, construction and maintenance of buildings and structures etc.



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In this section the typical costs of three ventilation systems are presented based on:

- a general kitchen operation situation (Table 19); and
- a high grease/smoke situation (**Table 20**).
- *a very high grease/smoke situation. This system involves a second pass through an ESP* (**Table 21**).

The costing provides an indication of:

- capital cost;
- monthly maintenance and running costs; and
- annual maintenance and running costs.

The costings presented in **Table 21**, Table 22 and Table 23 are based on typical costs in 2018 and consider the following scenarios:

- general situation treated using pre filter panel followed by bag filter (i.e. only grease control);
- general situation treated using pre filter panel followed by bag and HEPA filter (i.e. only grease control);
- general situation treated using pre and fine filters followed by activated carbon;
- general situation treated using pre filter panel, bag filter and HEPA filter followed by activated carbon;
- general situation treated using an ESP followed by activated carbon;
- general situation treated using an ESP followed by odour counteractant;
- general situation treated using an ESP followed by in-line UV/ozone system;
- high or very high grease/smoke situation using an ESP followed by activated carbon;
- high or very high grease/smoke situation using an ESP followed by odour counteractant; and
- high or very high grease/smoke situation using an ESP followed by in-line UV/ozone system.

**Table 19: Anticipated cost of abatement treating odour emissions from a general kitchen operation situation including maintenance and running (M&R) costs**

| Design Flow Rate ($m/s^3$) | Abatement System | Capital Cost | Monthly M & R Cost | Annual M & R Cost | Total Yearly cost |
|---|---|---|---|---|---|
| Up to 1.5 | Panel and Bag | *£750* | *£160* | *£1,100* | *£3,020* |
| | Panel, Bag and HEPA | *£1,800* | *£160* | *£1,800* | *£3,720* |
| | Pre, Fine and CF | *£1,300* | *£160* | *£1,700* | *£3,620* |
| | Panel, Bag, HEPA and CF | *£4,000* | *£160* | *£3,400* | *£5,320* |
| | ESP and CF | *£5,500* | *£175* | *£800* | *£2,900* |
| | ESP and counteractant | *£6,140* | *£175* | *£0* | *£2,100* |
| | ESP and UV/ozone | *£7,000* | *£175* | *£500* | *£2,600* |
| Up to 2 | Panel and Bag | *£1,000* | *£180* | *£1,300* | *£3,460* |
| | Panel, Bag and HEPA | *£2,500* | *£180* | *£2,300* | *£4,460* |
| | Pre, Fine and CF | *£2,500* | *£180* | *£3,400* | *£5,560* |
| | Panel, Bag, HEPA and CF | *£6,000* | *£180* | *£3,900* | *£6,060* |
| | ESP and CF | *£6,500* | *£250* | *£1,000* | *£4,000* |
| | ESP and counteractant | *£7,000* | *£200* | *£0* | *£2,400* |
| | ESP and UV/ozone | *£10,000* | *£160* | *£900* | *£2,820* |
| 2.5 | Panel and Bag | *£1,250* | *£200* | *£1,500* | *£3,900* |
| | Panel, Bag and HEPA | *£3,000* | *£200* | *£2,500* | *£4,900* |

| Design Flow Rate ($m/s^3$) | Abatement System | Capital Cost | Monthly M & R Cost | Annual M & R Cost | Total Yearly cost |
|---|---|---|---|---|---|
| | Panel, Bag and HEPA and CF | £8,000 | £200 | £4,200 | £6,600 |
| | ESP and CF | £7,500 | £250 | £1,200 | £4,200 |
| | ESP and counteractant | £8,000 | £250 | £0 | £3,000 |
| | ESP and UV/ozone | £11,000 | £250 | £1,000 | £4,000 |
| 3.5 | Panel and Bag | £2,000 | £275 | £2,600 | £5,900 |
| | Panel, Bag and HEPA | £4,500 | £275 | £4,500 | £7,800 |
| | Pre, Fine and CF | £4,500 | £275 | £5,100 | £8,400 |
| | Panel, Bag, HEPA and CF | £12,000 | £275 | £7,600 | £10,900 |
| | ESP and CF | £10,000 | £300 | £3,000 | £6,600 |
| | ESP and counteractant | £10,500 | £300 | £0 | £3,600 |
| | ESP and UV/ozone | £14,000 | £300 | £1,200 | £4,800 |
| 4.5 | Panel and Bag | £2,500 | £335 | £3,000 | £7,020 |
| | Panel, Bag and HEPA | £6,000 | £335 | £4,900 | £8,920 |
| | Pre, Fine and CF | £6,000 | £335 | £6,800 | £10,820 |
| | Panel, Bag, HEPA and CF | £14,000 | £335 | £8,400 | £12,420 |
| | ESP and CF | £15,000 | £375 | £4,500 | £9,000 |
| | ESP and counteractant | £14,000 | £375 | £0 | £4,500 |
| | ESP and UV/ozone | £20,000 | £375 | £1,500 | £6,000 |

**Table 20:Anticipated cost of abatement treating odour emissions from high grease/smoke situation**

| Design Flow Rate ($m/s^3$) | Abatement System | Capital Cost | Monthly M & R Cost | Annual M & R Cost | Total Yearly cost |
|---|---|---|---|---|---|
| Up to 1.5 | ESP and CF | £6,000 | £155 | £1,125 | £2,985 |
| | ESP and counteractant | £6,150 | £175 | £0 | £2,100 |
| | ESP and UV/ozone | 7000 | £175 | £500 | £2,600 |
| Up to 2 | ESP and CF | £8,000 | £250 | £1,500 | £4,500 |
| | ESP and counteractant | £7,000 | £200 | £0 | £2,400 |
| | ESP and UV/ozone | £10,000 | £160 | £900 | £2,820 |
| 2.5 | ESP and CF | £8,500 | £250 | £1,875 | £4,875 |
| | ESP and counteractant | £8,000 | £250 | £0 | £3,000 |
| | ESP and UV/ozone | £11,000 | £250 | £1,000 | £4,000 |
| 3.5 | ESP and CF | £12,000 | £300 | £6,000 | £9,600 |
| | ESP and counteractant | £10,500 | £300 | £0 | £3,600 |
| | ESP and UV/ozone | £14,000 | £300 | £1,200 | £4,800 |
| 4.5 | ESP and CF | £17,000 | £375 | £6,750 | £11,250 |
| | ESP and counteractant | £14,000 | £375 | £0 | £4,500 |
| | ESP and UV/ozone | £20,000 | £375 | £1,500 | £6,000 |

**Table 21: Anticipated cost of abatement treating odour emissions from very high grease/smoke situation**

| Design Flow Rate ($m/s^3$) | Abatement System | Capital Cost | Monthly M & R Cost | Annual M & R Cost | Total Yearly cost |
|---|---|---|---|---|---|
| Up to 1.5 | ESP and CF | *£6,500* | *£155* | *£2,250* | *£4,110* |
| | ESP and counteractant | *£6,150* | *£175* | *£0* | *£2,100* |
| | ESP and UV/ozone | *£7000* | *£175* | *£500* | *£2,600* |
| Up to 2 | ESP and CF | *£10,000* | *£250* | *£3,000* | *£6,000* |
| | ESP and counteractant | *£7,000* | *£200* | *£0* | *£2,400* |
| | ESP and UV/ozone | *£10,000* | *£160* | *£900* | *£2,820* |
| 2.5 | ESP and CF | *£13,500* | *£250* | *£3,750* | *£6,750* |
| | ESP and counteractant | *£8,000* | *£250* | *£0* | *£3,000* |
| | ESP and UV/ozone | *£11,000* | *£250* | *£1,000* | *£4,000* |
| 3.5 | ESP and CF | *£15,500* | *£300* | *£7,500* | *£11,000* |
| | ESP and counteractant | *£10,500* | *£300* | *£0* | *£3,600* |
| | ESP and UV/ozone | *£14,000* | *£300* | *£1,200* | *£4,800* |
| 4.5 | ESP and CF | *£21,000* | *£375* | *£9,000* | *£13,500* |
| | ESP and counteractant | *£14,000* | *£375* | *£0* | *£4,500* |
| | ESP and UV/ozone | *£20,000* | *£375* | *£1,500* | *£6,000* |

### 4.10.2 Relative cost effectiveness of odour abatement systems.

Table 22 compares the anticipated level of odour control against the estimated cost for installing and operating a system. Of those systems that contain odour control potential the abatement systems fall into two categories:

- Equipment offering good odour removal at a low capital cost but medium to high running costs; or
- Equipment offering good odour removal at a high capital cost with low running costs.

**Table 22: Anticipated relative cost effectiveness based on a well maintained system**

| Abatement Type | Level of Odour Abatement | Capital | Monthly M&R | Annual M&R |
|---|---|---|---|---|
| Panel and Bag | None | Low | Medium | Low |
| Panel, Bag and HEPA | None | Low to medium | Medium | High |
| Pre, Fine and CF | High | Low | Medium | High |
| Panel, Bag, HEPA and CF | High to very high | High | Medium | High |



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| Abatement Type | Level of Odour Abatement | Capital | Monthly M&R | Annual M&R |
|---|---|---|---|---|
| ESP and CF | High to very high | High | Low | Low |
| ESP and counteractant | Medium to high* | High | Medium | None |
| ESP and UV/ozone | High | Very high | Low | Low |

* level of abatement difficult to quantify using conventional odour measurement techniques.

### 4.10.3 Cost of noise abatement equipment

Table 23 identifies the cost of noise abatement equipment at varying air volumes.

**Table 23: Anticipated cost of abatement treating noise emissions from kitchen ventilation systems**

| Air Volume | Fan Housing | Acoustic Lagging (Circular Ductwork) | Acoustic Lagging (Rectangular Ductwork) | Attenuation (Circular Ductwork) | Attenuation (Rectangular Ductwork) |
|---|---|---|---|---|---|
| 1.0m³/s | £1,700 | £110 | £130 | £200 | £250 |
| 3.0m³/s | £1,900 | £180 | £210 | £700 | £400 |
| 5.0m³/s | £2,200 | £210 | £250 | £1,050 | £550 |

Note: All the above costs are based on a fan running at a noise rating of 60NR with an anticipated maintained space noise rating of 40NR.

### 4.10.4 Relative cost effectiveness of odour abatement systems

Table 24 compares the anticipated level of noise control against the estimated cost for installing and maintaining a system.

**Table 24:Relative cost effectiveness of noise abatement systems**

| Noise Abatement Type | Level of Noise Abatement | Capital Cost | Monthly Maintenance & Running | Annual Maintenance & Running |
|---|---|---|---|---|
| Fan Housing | High | Medium | Low | Low |
| Acoustic Lagging (Circular Ductwork) | Low | Low | Low | Low |
| Acoustic Lagging (Rectangular Ductwork) | Low | Low | Low | Low |
| In line Attenuation (Circular Ductwork) | Medium | Medium | Low | Medium |
| In line Attenuation (Rectangular Ductwork) | Medium | Medium | Low | Medium |

Note: The above table uses the costs associated with an average air volume of 3.0 m³/s.



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## 4.11 Installation

The following qualification criteria should be considered when selecting specialist design and installation contractors.

- Experience
  - Number of years designing and installing ventilation systems.
  - Demonstration of track record with project references.
  - Total number of operatives directly employed full time in ventilation design and installation work.
  - *The most significant factor is likely to be word of mouth. Good acoustic and ventilation engineers have a proven track record of solving problems. Ask for contacts with other local authority environmental health departments to confirm performance.*
- Affiliation
  - If *odour or noise control is required for the project, then the contractor will need to have an affiliation with a specialist manufacturer or designer in this field.*
  - *If specialist equipment is to be installed ensure that proper maintenance support is available at reasonable cost by properly trained operatives.*
  - Membership of appropriate trade body.
- Quality assurance
  - Work with quality systems or to accredited quality standard
  - Work with materials of certificated acoustic performance
  - *Qualifications and technical training of staff*
- Health and safety
  - Health and safety policy
  - Records of training and competency
  - Safety/accident records
- Insurance
  - Full details of any professional indemnity, employer's liability, public liability and contractors all risk policy, clearly stating any limitations on cover.



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# 5 Maintenance Requirements

Proprietors of commercial kitchens are under a duty to ensure that the ventilation system serving the respective premises are maintained and operated effectively.

Good maintenance is a prerequisite for ensuring that a system complies with Best Practicable Means under statutory nuisance provision and will form a key element of any scheme designed to minimise harm to the amenity under planning regulation. Good maintenance is also required by the food hygiene regulations and will minimise the risk of fire.

### 5.1.1 Consequence of Poor Maintenance

Poor maintenance is widely found with control systems. The consequence of poor maintenance is illustrated in the following examples.

***Example 1***

| Time Frame | Performance of System | System Pressure Drop |
|---|---|---|
| New installed or maintained filtration system. | Good flow, optimal grease and odour removal. | Low pressure drop as per design. |
| Period 1 – continued operation. | Flow restriction introduced as fine filtration system becomes blinded with particulate matter. | Increased pressure drop. |
| Period 2 – continued operation. | Flow restriction increases, resulting in the velocity through the system decreasing. This cause increased residence time within filters and improved control. This also causes the face velocity at the canopy to decrease. | Further increase in pressure drop. |
| Period 3 – continued operation and equipment failure. | Eventually blinding of fine filters occurs and adsorption in carbon filter reaches maximum capacity. At this point the system fails completely and grease/odour removal will be negligible. | Further increase in pressure drop until flow within duct work drops. |

***Example 2***

| Time Frame | Performance of System |
|---|---|
| New installed or maintained ESP. | Optimal particulate removal. |
| Period 1 – continued operation. | Coating of charged plates resulting in reduced particulate removal efficiency. |
| Period 2 – continued operation and equipment failure. | Coating of internal surfaces continues until particulate removal efficiency drops significantly. Other maintenance issues such as shorting of electrical equipment will occur. |

Both examples of poor maintenance described above are commonly found in commercial kitchens. The resultant loss in performance is often put down to inappropriate equipment or design. It is however more likely that the main contributory factor in poor performance of grease and odour removal systems is the inadequacy of the maintenance schedule applied to equipment. The optimum maintenance period will depend on the capacity of the equipment installed. It is fair to say that most kitchen ventilation systems are designed with very little excess capacity.

A key consideration in the performance of the kitchen ventilation system is the build-up of debris within the ductwork itself. Good hygiene practice should ensure that the face of the canopy, filters and any other parts requiring cleaning are cleaned regularly to comply with The Food Safety and Hygiene



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(England) Regulations 2013 and EU Regulation 852/2004. It is unlikely however that such cleaning will be afforded to the ductwork beyond the canopy and coarse grease filtration system. Material adhering to any other internal surfaces within the duct will contribute to the overall odour emission from the premises. This feature is common with poorly maintained ventilation systems of any kind and will lead to increased and unnecessary loading on any arrestment equipment and can lead to corrosion of the ductwork itself. In extreme circumstances excess debris within a duct work system can be seen as grease and dirt accumulations around seals and joints in the ductwork. This debris is combustible and therefore a potential fire hazard.

Poor maintenance of ventilation systems can also lead to noise complaints. These are often attributed to worn bearings, imbalance due to erosion or damage, dust and deposits on the impeller and in the adjacent ductwork. Additionally, silencers may be damaged, eroded, corroded or clogged and flexible connectors may become brittle or stiff.

### 5.1.2 Recommendations for maintenance

Maintenance of the kitchen equipment should be carried out in order to ensure the system remains as efficient as possible and also to ensure that the ventilation plant remains in good condition.

**Minimum performance requirements of general maintenance of a kitchen ventilation system**

The ideal criteria for the debris accumulation within a ventilation system are as follows:

| | Surface Contaminant Limits | Test Method |
|---|---|---|
| Extract | 6g/m$^2$ | Dust Vacuum Test (VT) |
| | 180 μm | Deposit thickness test (DTT) |
| Recirculation | 1g/m$^2$ | Dust Vacuum Test (VT) |
| | 60 μm | Deposit thickness test (DTT) |
| Supply | 1g/m$^2$ | Dust Vacuum Test (VT) |
| | 60 μm | Deposit thickness test (DTT) |

The maximum allowable debris accumulation within a ventilation system are as follows:

| Wet Film Thickness Test Measurement | Recommended Action |
|---|---|
| 200μm as a mean across the system | Complete cleaning required |
| Any single measurement above 500μm | Urgent local cleaning required |

To achieve these limits, it is recommended that:

- a visual inspection of the ventilation system be carried out at least once a week. All metal surfaces should be checked to ensure that there is no accumulation of grease or dirt and that there is no surface damage;
- cooker hoods and grease filters should be cleaned on a daily basis;
- baffle type self draining filters and collection drawers should be cleaned weekly as a minimum. The cleaning period for mesh filters should be at least twice a week;
- cleaning period for extract ductwork are used as follows:

| Grease loading | | Daily usages | Cleaning interval (months |
|---|---|---|---|
| *Heavy use* | *Heavy/continuous grease production* | *6 – 12 hours* | *3-6 months* |
| | | *12 -16 hours* | *2-3 months* |
| *Moderate use* | *Moderate grease production* | *6 – 12 hours* | *6-12 months* |
| | | *12 -16 hours* | *3-4 months* |
| *Light use* | *No significant grease production* | *6 – 12 hours* | *12 months* |
| | | *12 -16 hours* | *6 months* |



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- periodic 'deep hygiene cleaning' be undertaken by a specialist contractor. All accessible main ductwork runs and branches, including fitted equipment should be inspected and cleaned. [Note: periodic will be defined by the use of equipment];
- all fans are maintained on a regular basis as recommended by the fan manufacturer; and
- ventilation grilles, where fitted have easily removable cores to facilitate cleaning.

**Recommendations for maintenance of odour control system:**

For a system employing fine filtration and carbon filtration;

- Change fine filters every two weeks
- Change carbon filters every 4 to 6 months

For a system employing ESP and other in line abatement systems:

- *Clean every 1-3 months*
- *Change carbon filters every 6 to 12 months*

### 5.1.3 Maintenance Activities

A range of cleaning techniques are available, and these are summarised in Table 25 and Table 26.

**Table 25: Examples of wet cleaning techniques**

| Generic Name | Method of Removing Deposit |
|---|---|
| Wet Vacuum | Suction |
| Chemical Clean | Softens or dissolves deposits |
| Hand Wash | Washing of internal surface using appropriate medium |
| Steam/High pressure | High pressure system water wash used to dislodge/ dissolve deposits |

**Table 26: Examples of dry cleaning techniques**

| Generic Name | Energy Source | Method of Removing Deposit |
|---|---|---|
| Air Whip/Skipper Ball | Compressed Air (Low Volume) | A rubber hose or plastic ball that under pressure agitates the wall of the ductwork. |
| Air Lance | Compressed Air (Low Volume) | Usually an air gun with a trigger that is able to direct compressed air locally. |
| Air Nozzle | Compressed Air (High Volume) | Usually a plastic or metal ball placed on the end of a flexible hose. Compressed air leaving small openings in the ball propels the hose forward inducing the nozzle to closely traverse the internal surface of the duct. |
| Hand Wipe | Manual | Wiping of the surface using a medium appropriate to the purpose. |
| Hand Scrape | Manual | Removing heavy deposits by hand scraping. |
| Hand Brushing | Manual | Brushing the surface using a brush appropriate to the purpose. |
| Hand Vacuum | Electricity/Manual | Suction |
| Mechanical Brushing | Compressed Air and/or Electricity | Brushing the surface of the ductwork using a mechanical action. |



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| Generic Name | Energy Source | Method of Removing Deposit |
|---|---|---|
| Mechanical Brush and Air Technology Combined | Compressed Air/ Electricity | Brushing the surface of the ductwork using a mechanical action and compressed air. |

### 5.1.4 Monitoring Methods

Monitoring methods that may be used for assessing the level of debris accumulation are summarised in Table 27.

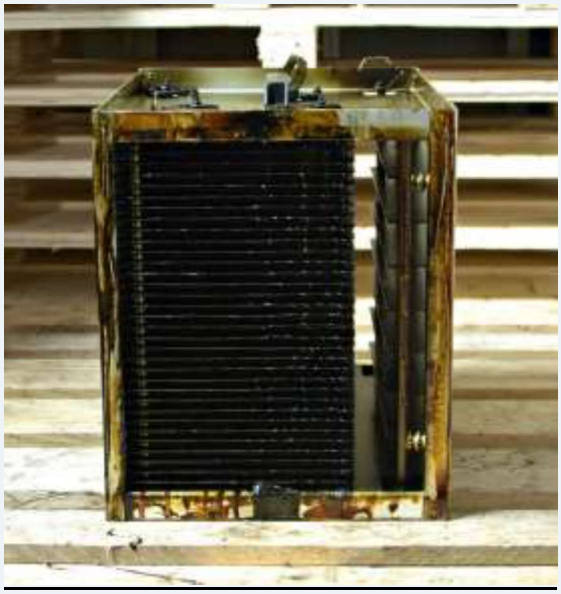
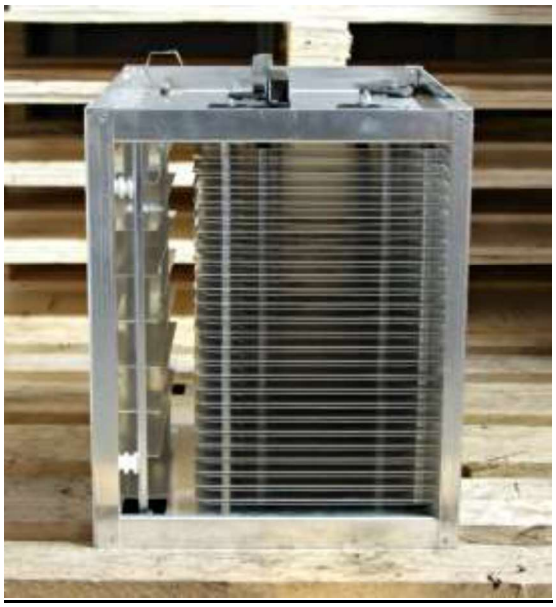
**Table 27*: Examples of monitoring methods that may be used for assessing the level of debris accumulation***

| Test Method | Reference | Description of Method |
|---|---|---|
| Deposit thickness test (DTT)<br>Dust Vacuum Test (VT)<br>Wet Film Thickness Test (WFTT) | US National Air Duct Cleaners Association NADCA ACR 2002 | HVCA "Good Practice Guide: Cleanliness of Ventilation Systems" |
| Indicative test | Measurement of grease deposit thickness on hard surfaces using a | |



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***Figure 20: case study material***

| *Maintenance is a prerequisite for all grease, smoke and odour systems. Poor cleaning of clean control systems will lead to poor performance of equipment and may lead to failure within a short period of time.* | |
|---|---|
|  | *Electrostatic precipitator after period of high grease loading* |
|  | *Electrostatic precipitator after cleaning* |

*Grease accumulation at a moderately busy restaurant. The sump on this system is full and requires cleaning. Failure to manage the grease accumulation properly is likely to lead to grease passing through the separation step and in to the odour control element.*



Inspection of the dust work is likely to show the presence of staining around joints and seals which would be symptomatic of the grease loading being too high.

*Illustration of the benefit of cleaning ductwork. Cleaning removes the build up of debris that accumulates over time. The rate of accumulation depends on the grease/smoke loading,so duct cleaning requirement needs to set accordingly*



*Before cleaning (note the hatches present in the ductwork to allow access for cleaning purposes).*



*After cleaning*



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# Appendices

# Appendix 1: Summary of Odour and Noise Problems Encountered by Local Authority Environmental Officers

*The results of the survey conducted for the 2004 document have not been reproduced. Additional example problems are included in Table 4.*



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# Appendix 2: Information Required to Support Planning Applications for Commercial Kitchens

The annex contains guidance on the type of information that should be submitted for approval by the Local Authority before any ventilation plant is installed.

The aim of any ventilation/extraction is to ensure that no nuisance, disturbance or loss of amenity is caused by odour, fumes, food droplets or noise, to nearby properties. Additionally, the visual appearance of the flue may be important and the flue itself may require separate planning permission. Enquiries should be made to the Local Authority Planning Department regarding this matter.

A suitably qualified and experienced person with specialist knowledge of ventilation schemes should undertake the design and installation of a ventilation system. Designing and installing appropriate ventilation systems may involve considerable expense.

In circumstances where the end user of the premises is unknown, or where the specific type of food to be cooked is unknown, the installation should be designed to achieve the highest level of odour control in order to cater for a worst-case scenario.

There are many different types of odour abatement available (carbon filters, electrostatic precipitation, high dilution and high velocity extraction). Not all types are suitable for all cooking methods. In each case, grease filters must be installed.

Please note that any reference to minimum standards within this document is for guidance only and more stringent controls may be deemed appropriate.

To enable the Local Authority Planning Department to assess the suitability of a ventilation scheme the following information should be provided.

**1. Information on premises**

The following information should be supplied:

- the number of meals to be served per day;
- the method(s) of preparation and cooking;
- the types of meal served, e.g. fish and chips, Chinese food, Indian food, pizzas or Italian dishes, etc; and
- proposed hours of operation of the business and any ventilation plant.
- *A risk assessment (see Appendix 3) for the premises*

**2. Plans and drawings**

Provide a scaled plan showing the internal arrangement of the premises and the dimensions/location of the ventilation system. The plan must contain external elevations of the buildings showing the

- dimensions;
- route; and
- exhaust characteristics of the ductwork in relation to the building.

The location of **all** filters and the fan must be clearly marked. Where the location of a filter is shown the type must be clearly identified and cross-referenced to the detailed product specification.

**3. Pre-filters**

A copy of the manufacturer's product data sheet should be supplied clearly showing:

- manufacturer's name;
- filter name and product code;
- dimensions of the pre-filter; and
- nature of the filter media.

- manufacturer's recommendations on the frequency and type of maintenance of the pre-filter having regard to the conditions that it will be used under.

**4. Electrostatic precipitators (where proposed)**

A copy of the manufacturer's product data sheet should be supplied clearly showing:

- manufacturer's name;
- ESP name and product code;
- dimensions of the ESP; and
- flow rate rating.

Manufacturer's recommendation on the frequency and type of maintenance of the ESP having regard to the conditions that it will be used under.

**5. Carbon Filters (where proposed)**

The details and type of carbon filter units should be identified. A copy of the manufacturer's product data sheet should be supplied that clearly shows:

- manufacturer's name;
- filter name and product code;
- dimensions of the filter panel; and
- the total number of filter panels in the filter bed.

The following information should also be included:

- the nature of the carbon (including product type);
- the frequency of replacement of the carbon units having regard to the conditions that it will be used under. The assumptions to this calculation must be clearly stated, including the frequency and duration of use. The manufacturer should provide recommendations on the frequency and type of maintenance required;
- total volume of carbon expressed in cubic metres;
- total mass of carbon expressed in kilograms;
- total surface area of the panels exposed to the exhausted air; and
- dwell time of the gases in the filter compartment and the control setting at which this is achieved. The assumptions to this calculation must be clearly stated and should include the air change rate for the setting quoted.

**6. Odour counteractant or neutralising system (where proposed)**

The details and type of counteractant or neutralising system should be identified. A copy of the manufacturer's product data sheet should be supplied that clearly shows:

- manufacturer's name;
- name of delivery system and product code;
- counteractant or neutralising chemical to be used;
- COSHH data sheets for chemical to be used; and
- anticipated counteractant or neutralising delivery rate.

***7. UV-C system (where proposed)***

*A copy of the manufacturer's product data sheet should be supplied clearly showing:*

- *manufacturer's name;*
- *UV-C name and product code;*
- *dimensions of the UV-c unit;*



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- *anticipated level of ozone being generated;*
- *anticipated residence time; and*
- *anticipated level of residual ozone likely at stack exit;*

*Manufacturer's recommendation on the frequency and type of maintenance of the UV-C having regard to the conditions that it will be used under.*

**8. Odour counteractant or neutralising system (where proposed)**

The details and type of counteractant or neutralising system should be identified. A copy of the manufacturer's product data sheet should be supplied that clearly shows:

- manufacturer's name;
- name of delivery system and product code;
- counteractant or neutralising chemical to be used;
- COSHH data sheets for chemical to be used; and
- anticipated counteractant or neutralising delivery rate.

**9. Cooker hood**

The following information on the characteristics of the cooker hood should be supplied that clearly shows the:

- length that the cooker hood overhangs the appliances;
- face velocity at the cooker hood, expressed in metres per second; and
- dimensions of the opening of the cooker hood.

**10. System Operation**

In addition to the specification of the components the following must be provided about the system:

- extract rate (expressed as $m^3/s$) at the proposed rate of extract;
- dwell time of the gases in the carbon filtration zone;
- volume of the kitchen; and
- efflux velocity

Note: The system performance is dependent upon the extract rate of the air. Where the rate can be adjusted by the use of dampers or a variable speed fan, then the conditions under which the extract rate can be achieved must be described.

**11. Flue Design**

The height and velocity of the final discharge are the two important factors. Generally, the greater the flue height, the better the dispersion and dilution of odours.

The discharge of air should be at a minimum height of 1m above the roof ridge, especially if there are buildings nearby that may affect odour dispersion and dilution.

Where this is not possible (e.g. because of ownership or structural constraints), additional techniques will be required in order to reduce odours, such as an increase in efflux velocity and additional filters, etc.

The final discharge should be vertically upwards, unimpeded by flue terminals. The number of bends in the ducting should be minimised and the ducting should have a smooth internal surface.

**12. Noise**

Data on the noise produced by the system as a whole should be provided including:

- sound power levels or sound pressure levels at given distances (the assumptions to this calculation must be clearly stated);
- an octave band analysis of the noise produced by the system should also be provided, where possible; and



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- hours of operation of the ventilation system (where this differs from the hours of opening).
- *If the system produces internal sound levels above 70dB at the workstation, a workplace noise assessment should be conducted to ensure that compliance with occupational noise limits is met*.

**13. Maintenance**

A schedule of maintenance must be provided including details for:

- cleaning of washable grease filters;
- frequency of inspection and replacement of all filters (grease filters, pre-filters and carbon filters where proposed);
- inspection and servicing of fans; and
- if schedule is not based on manufacturer's instructions include the reasons why.

**14. Additional notes for guidance**

The air inlets must not permit pests to enter the kitchen. Fly screens are an example of how this can be achieved.

Sufficient air must be permitted into the premises to replace air extracted. The method for supplying this make-up air should be detailed. The route of the air into the kitchen must not result in its contamination, for example passage through a toilet. Separate provision must be made for ventilation of a toilet.

There must be sufficient access points to permit adequate cleaning of all the ductwork.

# Appendix 3: Risk Assessment for Odour

Odour control must be designed to prevent odour nuisance in a given situation. The following score methodology is suggested as a means of determining odour control requirements using a simple risk assessment approach. The odour control requirements considered here are consistent with the performance requirements listed in this report.

| Impact Risk | Odour Control Requirement | Significance Score* |
|---|---|---|
| Low to Medium | Low level odour control | Less than 20 |
| High | High level odour control | 20 to 35 |
| Very high | Very high level odour control | more than 35 |

* based on the sum of contributions from dispersion, proximity of receptors, size of kitchen and cooking type:

| Criteria | Score | Score | Details |
|---|---|---|---|
| Dispersion | Very poor | 20 | Low level discharge, discharge into courtyard or restriction on stack. |
| | Poor | 15 | Not low level but below eaves, or discharge at below 10 m/s. |
| | Moderate | 10 | Discharging 1m above eaves at 10 -15 m/s. |
| | Good | 5 | Discharging 1m above ridge at 15 m/s. |
| Proximity of receptors | Close | 10 | Closest sensitive receptor less than 20m from kitchen discharge. |
| | Medium | 5 | Closest sensitive receptor between 20 and 100m from kitchen discharge. |
| | Far | 1 | Closest sensitive receptor more than 100m from kitchen discharge[1]. |
| Size of kitchen | Large | 5 | More than 100 covers or large sized take away. |
| | Medium | 3 | Between 30 and 100 covers or medium sized take away. |
| | Small | 1 | Less than 30 covers or small take away[1]. |
| Cooking type (odour and grease loading) | Very high | 10 | Pub (high level of fried food), fried chicken, burgers or fish & chips. *Turkish, Middle Eastern or any premises cooking with solid fuel* |
| | High | 7 | Vietnamese, Thai, Indian, *Japanese*, *Chinese, steakhouse* |
| | Medium | 4 | Cantonese, *Italian, French, Pizza (gas fired),* |
| | Low | 1 | Most pubs (*no fried food, mainly reheating and sandwiches etc*), *Tea rooms*[1] |

**Note 1: A planner may take a pragmatic view when assessing whether certain low risk kitchens require any odour abatement to be fitted. In reaching this decision the Planner may consider the nature of the food being cooked and/or the size of kitchen and/or its location.**



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**Example application of scoring procedure for four different cooking situations**

| Example | Dispersion | Proximity of receptors | Size of Kitchen | Cooking Type | Total Score |
|---|---|---|---|---|---|
| 1. Small Indian restaurant | 20 | 10 | 1 | 7 | 38 |
| 2. Pub | 5 | 5 | 5 | 4 | 19 |
| 3. Medium sized French restaurant | 15 | 10 | 3 | 4 | 33 |
| 4. Large burger restaurant | 10 | 10 | 5 | 10 | 35 |

Example 1 Represents a small Indian restaurant with the kitchen ventilation extract discharging into a small court yard.

Example 2 Represents a traditional pub cooking a range of food types with the kitchen ventilation extract discharging at roof ridge. The pub is located in a rural location with the closest receptors 25 m away.

Example 3 Represents a medium sized French restaurant. The restaurant occupies the ground floor of two story building (adjacent buildings are taller). The kitchen extract discharges at roof eaves.

Example 4 Represents a large burger restaurant. The restaurant occupies a building within 20m of residential properties. The kitchen extract discharges at roof eaves.

Examples 1 and 4 are locations where the risk of problems arising due to these types of cooking activity are very high. In both instances, improving dispersion (e.g. to 1 m above roof ridge) will reduce the risk ranking. Based on this assessment approach the emissions from these restaurants will need a very high level of odour control to prevent nuisance. The level of odour control requirement is reduced with improvement in stack dispersion.

Example 2 is a location where the risk of problem occurring due to this type of cooking activity is low to medium. Based on this assessment approach the emissions from these restaurants will need a low to medium level of odour control to prevent nuisance.

Example 3 is a location where the risk of problems occurring due to this type of cooking activity is high. Based on this assessment approach the emissions from the restaurant will need a high level of odour control to prevent nuisance. The level of odour control requirement is reduced with improvement in stack dispersion.



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# Appendix 4: Factors to take into account in noise assessment

Two fundamental categories of noise source are of relevance. The first is the noise produced by the fan, which is a function of the type of fan (axial, centrifugal, mixed flow, etc), the rate of the airflow and the pressure drop. For these calculations the octave band sound power from the fan is required. This can normally be obtained from the manufacturer.

The second category of noise is generated by turbulence as the air passes within the ducts or through the exit grille or louvre. In this case the amount of noise is determined by the design of duct, grille or louvre, the pressure drop across terminations, the velocity of the air (this can be variable across the duct, grille or louvre) and the area of the duct or opening. The problem with this form of noise, especially at terminations, is that in most situations it can only be controlled at its source. For example, at the feature that is generating the noise as there is no further length of duct in which to install noise control equipment.

In some situations, a third source may need to be considered. This is where noise generated within the building breaks into the ductwork and is radiated from the outlet. The area of the duct walls, the acoustic properties of the duct walls and the area of any inlets determine the amount of break-in noise. Once this noise has broken into the ducts it can be treated as if it were an additional component of the fan noise. However, the nature of this additional noise is such that it usually contains a relatively high level of low frequency sound which can be difficult to attenuate.

The attenuation of fan noise (and break-in noise) provided by the ductwork is determined by the length of the ducts, the presence of any bends, changes in cross-section, the presence of any plenum chambers and termination effects (including sound-attenuating louvres if present and the attenuation provided by any change in cross-section). A balance has to be struck between the acoustic benefit of bends and louvres etc and the pressure drop that these create, possibly requiring a larger fan.

The sound energy components arising from fan noise, turbulence within the duct and at outlets, and from noise break-in, combine to produce an acoustic source at the outlet. The energy will then propagate away from the outlet in a manner determined by the nature and geometry of surrounding buildings and terrain. The nature, temporal characteristic and level of the resultant sound that reaches the ears of people in the vicinity (usually quantified by considering the noise at façades), and its level relative to the background noise, all contribute to its potential to cause disturbance and complaint. These factors should be taken into account at the planning stage as a matter of course. They form the basis of BS 4142 “Rating industrial noise affecting mixed residential and industrial areas” which will often be used by a Local Authority as support to the issue of a Noise Abatement Notice under the Environmental Protection Act.

When mitigation is required it can be provided in a variety of ways. For example, if the problem is grille/louvre noise then alternative designs or relocation of the outlet are usually the only available solutions. However, with fan noise many of the basic parameters can be altered to achieve a reduction in the sound pressure level. These may include the selection of a quieter fan or adding an additional attenuator close to the fan.

Although there will be exceptions it is worth noting that it is usually most effective to control the noise at source, for example by using quiet fans and grilles/louvres. The next most effective form of control is to increase the attenuation in the propagation path, close to the source wherever possible (plenum chambers, bends, branches and purpose-built attenuators). The least effective approach is likely to be relocation of the outlet.

The process that should be followed in order to ensure efficient management of environmental noise when planning new ventilation systems or designing retro-fitted mitigation, for example when the Local Authority has identified that a nuisance exists, is shown in Figure A4.1.

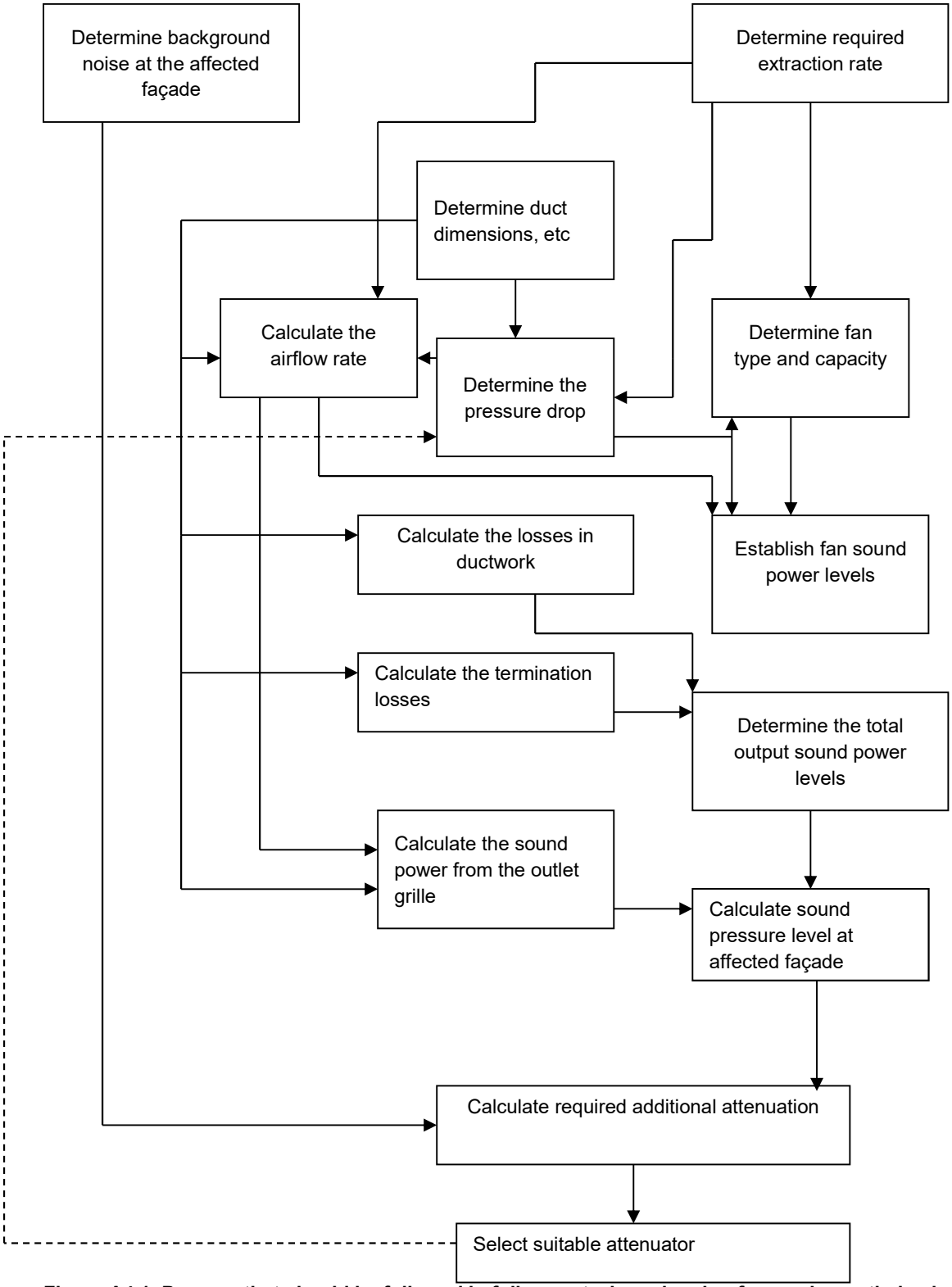



**Figure A4.1. Process that should be followed in full or part when planning for a noise-optimised ventilation system.**

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| | |
|---|---|
| **Committee(s):**<br>Planning and Transportation Committee – For Decision | **Date(s):**<br>**20.11.2018** |
| **Subject:**<br>Road Danger Reduction & Active Travel Plan 2018 -2023 | **Public** |
| **Report of:**<br>Director of the Department of Built Environment | **For Decision** |
| **Report author:**<br>Rory McMullan, Road Danger Reduction & Behaviour Change Team, Department of Built Environment | |


**Summary**

This 5 year Road Danger Reduction and Active Travel plan 2018 – 2023 (RDR Plan) has been developed with the ambition of getting the City on target for meeting the Vision Zero objectives outlined in the Mayor's Transport Strategy, whereby the annual number of people killed or seriously injured (KSI) in traffic incidents is zero by 2041.

To meet this challenging target the RDR Plan proposes a number of behaviour change, enforcement, engagement and engineering initiatives that support safer travel by active modes (walking and cycling), whilst reducing road risks at source. The full plan can be seen in Appendix 3.

Members endorsed the Draft RDR Plan for public consultation, which was carried out over the spring and summer of 2018. We received 511 responses to the consultation survey. A report on the results of the consultation can be seen in Appendix 3.

The Mayor's Transport Strategy proposes the adoption of Vision Zero, which sets a target of 70% reduction in KSI by 2030, which gives the City a target of no more than 16 KSI. The RDR Plan proposes accepting this target which gives a target of no more than 33 KSI by 2023.

In July 2018, TfL released the Vision Zero Action Plan which proposes following the Safe System Approach.

The Draft Transport Strategy which was approved for consultation in October 2018, also follows the Safe System Approach. The long term, Draft Transport Strategy is going to consultation, and this RDR Plan will therefore be subject to revision pending the adoption of the Transport Strategy.

The RDR Plan has been redrafted to maintain the ten steps in five years, but follow a Safe System Approach methodology.


**Recommendation(s)**

Members are also asked to approve the Road Danger Reduction and Active Travel Plan 2018 – 2023 for adoption.

## Main Report

**Background:**

1. The City's success is reflected in its continuing growth as the world's premier business location. The City has seen significant growth from 356,600 employees in 2010, rising to 513,000 by 2015, a 44% increase. There has also been an increase in people walking and cycling in the City, which supports the Healthy Streets Approach outlined in the Mayor's Transport Strategy. During the past 5 years, KSIs have remained fairly constant, averaging 50 per year. This is lower than any London Authority, but is not in line with the 2020 target of 25 KSI set in the *2013 Road Danger Reduction Plan*.

**Current Position:**

2. KSI numbers to pedal cyclists are on a decreasing trend. The 2015-17 average of 13 KSIs compares to the 2012-14 average of 23 KSIs. This is roughly a 42% reduction despite an approximate 25% increase in cyclist numbers. However cyclists accounted for 6 of the 11 fatalities in the City between 2012 – 2016.

3. The number of pedestrians KSIs in road collisions has risen. The 2015 -17 average of 25 KSI, compares to the 2012 – 14 average of 20 KSI; a 25% increase. This rise is worrying but lower than the growth in the City worker population, which can be used as an approximation of increase in people walking in the City.

4. The delivery plan therefore proposes a focus on the safety of active travel with an emphasis on pedestrian safety. Focusing on reducing danger at source it targets those vehicles which carry the most kentic energy and therefore most potential harm.

5. The casualty analysis of who, what, where, when and why collisions occur within the Square Mile can be seen in Appendix 4 and provides the background evidence for this RDR Plan.

**Options**

6. The Mayor's Transport Strategy's 'Vision Zero' approach sets challenging interim targets for London authorities. The 2022 target set by the Mayor of a 65% reduction from the 2005 – 2009 baseline would require a reduction from 51 KSIs in 2016 to below 18 KSIs in 2022. It is not realistic to adopt this target. However, a linear rediction towards the 2030 target of 16 KSIs would give the City a target of no more than 33 KSIs in 2023.

7. The consultation showed 78% support for this target, of the 22% who opposed the target, 15% felt it was not ambitious enough, while only 7% felt it to be too ambitious.

8. The current RDR Work Programme is fully funded through TfL Local Implementation Plan. Future years programmes will be subject to agreed funding and reporting process to members.

**Proposals:**

9. The Consultation showed high support for all the proposals in the RDR Plan. The amended document has therefore kept the orginal steps, but modified them to reflect comments from the consultation. The steps have been reorganised to fit within the Safe System Approach recommended in the TfL Vision Zero Action Plan. The revision represents a reorganisation of the Draft RDR plan rather than a major change of focus or content.

10. There are two new steps which are: Reducing traffic speed, which was previously listed as part of targeted enforcement. Traffic Reduction, which was the most commented upon issue in the consultation.

11. As seperate Targetted Enforcement section has been omitted. Working in partnership with the City Police is an essential element for successful delivery of all of the ten steps, and integral to the delivery of all four themes of the Safe System Approach: Safer Streets, Safer Speeds, Safer Vehicles and Safer Behaviours.

12. The ten steps implementation plan for the RDR Plan are outlined in Appendix 1. The original ten step plan can be seen in Appendix 2

**Corporate & Strategic Implications**

13. The RDR Plan works towards delivery of objectives within the Draft Transport Strategy. This RDR Plan will therefore be subject to revision immediately after the Transport Strategy is adopted to take account of the proposals.

**Implications**

14. It is recognised that an increased RDR budget will be required over the following years if the City is to meet the challenging targets. Section 55 of the Road Traffic Regulation Act states that on-street parking surplus, including fines from Bank, can be spent on the implementation of the London Transport Strategy.

**Conclusion:**

15. Measures adopted over the last five years for road danger reduction have been successful in delivering an improvement in the casualty rate in the City. However absolute casualty numbers have remained constant due to the rise in the number of vulnerable road users. More significant reductions in killed and serious injury numbers will require the adoption of new and more radical measures that prioritise active travel and support Healthy Streets.

16. The existing major engineering projects and programmes such as permenant measnures at Bank, will continue to deliver casualty reductions, but due to time-frame, major new projects are beyond the scope of this 5-year plan. As 45% of City casualties occur on TfL controlled streets, a major componenent of this plan focussed on engagement.

17. The RDR Plan focuses on what we can do in the short term. Longer term reduction in casulaties will rely heavily on the delivery of the measures proposed in the Draft Transport Strategy for the City.

**Rory McMullan**
Road Danger Reduction and Behaviour Change Manager
Department of the Built Environment

T: 020 7332 1471
E: rory.mcmullan@cityoflondon.gov.uk

**Appendix 1: The RDR Plan 2018 – 23 – Implementation Plan for Approval - Safe System Approach**

| |
|---|
| ***Theme 1: Safer Streets*** |
| **Step 1: Safer Street Design**<br><br>The implementation of physical changes to street design, reducing the opportunity for the manoeuvres and behaviours that lead to collisions that cause injury. All new street design changes will be promoted to the local community. |
| **Step 2: Timed closures**<br><br>The City Corporation will research opportunities for timed closures to certain classes of traffic. Areas with the highest density of active travellers, and those locations which are already road collision hotspots, will be prioritised. |
| **Theme 2: Safer speeds (NEW)** |
| **Step 3: Reducing traffic speed**<br><br>The greater the speed the more severe the injury when a vehicle collides with a person. Stopping distances increase with speed and reaction times reduce, thus reducing speed is at the heart of road danger reduction. We will work with the City Police on engagment, education and enforcement of the 20mph limit. This will support the potential lowering the current 20mph speed limit to 15mph on the adoption of the Draft Transport Strategy. |
| **Step 4: Trials and Temporary Projects**<br><br>Temporary, low cost interventions, such as paint and planters, will be installed to change the look and feel of the streets to prioritise active travel. |
| **Theme 3: Safer vehicles** |
| **Step 5: Safer freight operation**<br><br>The City will continue to work with construction sites in the City to ensure the safer Heavy Goods Vehicles and better trained drivers operate in the Square Mile. |
| **Step 6: Traffic Reduction (New)**<br><br>Making space for safer active travel (people walking and cycling) will require a reduction in the motor vehicle traffic in the City. |
| **Theme 4: Safer behaviours** |
| **Step 7: Behaviour change: attitudes to travel programme**<br><br>We will develop a series of campaigns, programmes and events to influence the attitudes of road users. Empathy towards other road users and understanding of their |

| |
|---|
| behaviours reduces conflict and collisions. |
| **Step 8: Safer riders**<br><br>We will engage with motorcycle and pedal cyclists through initiatives such as rider forums to better understand the issues and research opportunities to make riding in the City safer. |
| **Step 9: Safer drivers**<br><br>The City Corporation will work with its partners and City businesses to raise awareness and encourage enhanced driver training for all drivers. |
| **Theme 5: Awareness and engagement** |
| **STEP 10. Stakeholder engagement**<br><br>Continue to engage with key stakeholders, businesses, construction, industry professionals and the local community. Through various channels, such as the Active City Network (ACN) and the Road Danger Reduction Partnership (RDRP). |

**Appendix 2** Original Steps: RDR Plan Approved for Consultation

| |
|---|
| ***Theme 1: Engagement and Behaviour Change*** |
| **Step 1: Behaviour change: attitudes to travel programme**<br><br>Social norms campaigns and best practice guides will be aimed at encouraging safer road behaviour over the long term |
| **Step 2: Causational factors programme**<br><br>Monitoring casualty data to guide road danger reduction engineering improvements to the highway and targeted campaigns by user behaviour and location will seek to address dangerous behaviours. |
| **Step 3: Stakeholder engagement: Active City Network (ACN)**<br><br>A means of distributing road danger reduction and active travel promotions and messages to businesses, residents, visitors and students throughout the City of London. |
| **Step 4: RDR partnership**<br><br>The Partnership of the City Police and City Corporation is dedicated to making a healthier and safer City. |
| ***Theme 2: Danger reduction and vision zero*** |
| **Step 5: Targeted enforcement and street monitoring**<br><br>The City of London Police will address higher risk road user behaviour through criminal prosecution or educational alternatives |
| **Step 6: Safer freight operation**<br><br>The *City Mark* programme works with all construction sites improving compliance for large freight vehicles and their drivers. This work will continue and be embedded within CCS. |
| **Step 7: Safer riders**<br><br>We will focus on engagement through establishing forums, rider ettiquete campaigns to change behaviours and rider training to reduce collisions involving riders. |
| **Step 8: Safer drivers**<br><br>Driver training will be promoted to groups such as private hire and van drivers |
| ***Theme 3: Active travel and Healthy Streets*** |
| **Step 9: Temporary timed closures of casualty hotspots – lunchtime streets**<br><br>Trialing timed closures at high footfall casualty hotspots. The proposed initial focus will be trialling traffic free streets in high demand areas at lunchtime |

**Step 10: Tactical urbanism: Active travel priority zones**

Experimental road designs will be trialled on low budgets with temporary materials to study their impacts, preceding permanent road alterations.

**Appendix 3** Road Danger Reduction & Active Travel Plan 2018 -2023

PDF

**Appendix 4** RDR and AT Plan Consultation Report

PDF

**Appendix 5** Road Injury Statistics for the City of London 2013 – 2017

PDF

# Road Danger Reduction and Active Travel Plan 2018 - 2023



## Department of the Built Environmnet
## City Transportation

# Foreword



Chairman of Planning and Transportation Committee, Christopher Hayward CC.

As the Chairman of Planning and Transportation, I am pleased to present our approach to reducing road danger and promoting active travel on our streets. The ambition of this plan is to create a safer, healthier and more habitable City for everyone, whether resident, employee or visitor.

I am committed to reducing causalities on our street and aiming towards a vision of zero deaths and serious injuries. In recent years we have adopted several engineering measures such as redesigning Holborn Circus and the removal of the Aldgate gyratory thereby delivering safer streets and creating a new public square.

We have completed the radical and potentially transformative Bank on Safety experiment at Bank Junction. Welcomed the new Cycle Superhighways and introduced the first cycling Quietway routes in the City of London.

The City is growing. The arrival of Crossrail and increased Tube line capacity will result in considerable increases in people walking, in particular on key routes and junctions. This Plan outlines ambitious actions to safely accommodate the rising numbers of those wanting to walk and cycle in this City.

We have made great progress in reducing the number of cyclist casualties on our streets even with the year on year increase in cyclist numbers. However, the same does not apply to pedestrians, where the growth in pedestrian numbers has resulted in an increase in pedestrian casualties. More radical action is clearly needed, and this document sets out our approach to delivering Vision Zero, a major component of the Healthy Streets Agenda.

The success of the UK economy requires the City of London to remain efficient and competitive as it grows. We want companies to continue investing in the City as one of the world's premier business locations because they can attract and retain the very best talent. We want to attract new visitors to enjoy the world-class destinations in the Culture Mile. It is imperative, therefore, that we base our strategy on the goal of eliminating death and injury on our streets and improving the experience of walking and cycling.

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# Executive Summary

# Introduction and Context

This is the City of London Corporation's second Road Danger Reduction Plan following the first five-year plan in 2013. This Road Danger Reduction and Active Travel Plan (RDR Plan) seeks to achieve a genuine reduction in danger for all, to make our streets safer and improve the quality of life for everyone in the City of London.

This plan seeks to be consistent with the 'Vision Zero' approach taken by the Mayor of London, with road danger targeted at its source, working towards the elimination of the number of people killed or seriously injured on London's roads. The Mayor is committed to delivering the Healthy Streets Approach to enable more walking and cycling, helping to reduce levels of physical inactivity and associated health impacts.

The City is home to approximately 9,000 residents. Over 513,000 people work in the City and the majority travel to the Square Mile for work every day, reflecting the City's status as the pre-eminent global finance district. All of these journeys involve some walking. The City working population is predicted to rise further due to growing employment and new transport infrastructure such as Crossrail. The number of visitors to the Square Mile is also set to increase with initiatives such as the Culture Mile.

The City Corporation will be publishing a long term Transport Strategy in the spring of 2019, this RDR Plan will be updated immediately afterwards to take account of the proposals.

# Targets

The City Corporation is adopting Vision Zero with the ambition that nobody is killed or seriously injured (KSI) on the City's streets. To achieve this ambition, we will adopt the Mayor of London's targets to reduce KSI by 70% against 2010-14 levels by 2030, and eliminate all KSIs by 2041.

**Targets for this plan:**

- By 2022 – no more than 35 KSI.
- By 2023 – no more than 33 KSI.
- By 2030 – no more than 16 KSI.

# Safe System - Towards a Safer City

Our programme of action takes a Safe System Approach[1], an internationally recognised approach to road danger reduction, based on the principle that our life and health should not be compromised by our need to travel.

**Theme 1: Safer Streets**

### Step 1. Safer Street Design:

The implementation of physical changes to street design, reducing the opportunity for the manoeuvres and behaviours that lead to collisions that cause injury. All new street design changes will be promoted to the local community.

### Step 2. Timed Closures:

The City Corporation will research opportunities for timed closures to certain classes of traffic. Areas with the highest density of active travellers, and road collision hotspots, will be prioritised.

**Theme 2: Safer Speeds**

### Step 3. Reducing Speed:

The greater the speed the more severe the injury when a vehicle collides with a person. Stopping distances increase with speed and reaction times reduce, thus reducing speed is at the heart of road danger reduction. Due to the high numbers of active travellers we will seek to lower the current 20mph speed limit to 15mph.

### Step 4. Trials and Temporary Project:

Temporary, low cost interventions, such as paint and planters, will be trialled to change the look and feel of the streets to prioritise active travel.

**Theme 3: Safer Vehicles**

### Step 5. Safer Freight Operation:

The City Corporation will continue to work with construction sites and freight operators in the City to ensure that safer Heavy Goods Vehicles and better trained drivers operate in the Square Mile.

1 Source: www.pacts.org.uk/safe-system/

### Step 6: Traffic Reduction:

Making space for safer active travel (people walking and cycling) will require a reduction in the motor vehicle traffic in the City.

**Theme 4: Safer Behaviours**

### Step 7. Behaviour Change: Attitudes to Travel programme:

Develop a series of campaigns, programmes and events to influence the attitudes of road users. Empathy towards other road users and understanding of their behaviours reduces conflict and collisions.

### Step 8. Safer Riders:

Engage with motorcycle and pedal cyclists through forums to better understand the issues and research opportunities to make riding safer.

### Step 9. Safer Drivers:

The City Corporation will work with its partners and City businesses to raise awareness and encourage enhanced driver training for all drivers.

**Theme 5: Awareness and Engagement**

### Step 10. Stakeholder Engagement:

Continue to engage with businesses, construction, industry professionals and the local community. Through various channels, such as the Active City Network (ACN) and the Road Danger Reduction Partnership (RDRP).

# Conclusion

This plan is about people. People look to the City Corporation to lead by example and demonstrate progress. The entire UK economy is reliant on our investment in the City as a campus for companies that want to locate here because they can attract and retain the very best talent.

The ability to move safely is therefore a priority. If we want to reduce danger and deliver Vision Zero, we need to work in partnership to change attitudes and raise awareness about road danger.

# Section 1

# Introduction, Context and Baseline

# Introduction

This Road Danger Reduction and Active Travel Plan (RDR Plan) has been developed with the ambition of the City of London Corporation (City Corporation) supporting Healthy Streets and meeting the Vision Zero objectives outlined in the Mayor's Transport Strategy. It aims to work towards reducing the annual number of people killed and seriously injured in traffic incidents to zero before 2041, while continuing to support increased levels of walking and cycling on the City streets.

The way people travel in the City is changing, with a substantial increase in the number of people choosing to cycle. Coupled with this, the daytime population of the City has been increasing and is predicted to continue to rise. As much as 90% of trips are made on foot within the Square Mile, making providing a safe environment for pedestrians a priority. Consequently, the RDR Plan establishes momentum for delivering a safe environment for active travel to achieve absolute casualty reduction figures and the wider objective of accommodating rising active travel demand.

The City Corporation, as a local highway authority, has a legal duty under Section 39 of the Road Traffic Act 1988 to investigate, promote and implement road safety measures. Through this RDR Plan we are seeking to achieve our ultimate vision of zero collision fatalities, a reduction in the severity of collisions, as well as improved health and quality of life for those living, working and spending leisure time in the City of London.

To meet this challenging target, this plan proposes following the Safe Systems Approach that supports safer travel by active modes, such as walking and cycling through reducing road risks at their source. A mixture of behaviour change, engineering interventions and vehicle design changes are needed to enable all road users to take care of their own and others' safety, although the primary responsibility lies with those who present the greatest risks to the most vulnerable road users. This will involve ensuring street environments incorporate safe speeds, safe people, safe design and safe vehicles.

This document has been drafted by the City of London Road Danger Reduction team in partnership with the City Road Danger Reduction Partnership (RDRP), a working group of public sector organisations that have a mutual interest in reducing danger on the City's streets by addressing risks at source.

# Context

## Mayor's Vision Zero for London

Each road death is an unacceptable and a potentially preventable tragedy, and many serious injuries are life-changing, some of which require lifetime care. It is not only the victims of incidents who are affected; so too are their families, friends and loved ones.

Vision Zero supports that people do not purposefully go out of their way to cause injury. Instead, each is a consequence of one or more contributory factors including simple coincidence, inattention, mistakes made by one or more parties, incorrect judgement and perception of risks, inappropriate behaviours, distraction and simply the speed of events unfolding combined with the human inability to focus in all directions at the same time.

Vision Zero is about protecting people and preventing injury. The responsibility for safety is shared by all, including those who have a role in designing, building, operating and managing our transport network as well as everyone that uses it. Together we can eradicate deaths and serious injuries from our roads and make London a safer, healthier and greener place.

### Safe System Approach to Achieve Vision Zero

- Safe speeds: Encouraging speeds appropriate to the streets of a busy City.
- Safe streets: Designing an environment that is forgiving of mistakes.
- Safe vehicles: Reducing risk posed by the most dangerous vehicles.
- Safe behaviours: Reducing the likelihood of road users making mistakes or behaving in a way that is risky for themselves and other people[1].

### Road Danger Reduction (RDR) – a modified approach to road safety

RDR targets the vehicles bringing the most danger as they hold the most responsibility. RDR aims to reduce both the number of people injured and the intimidation of vulnerable road users by motor vehicles, decreasing the potential for them to make mistakes.

The key to making roads safer is the reduction of the speed, volume and dominance of motor vehicles. The desired outcomes of RDR are safer streets, which are good for the environment, and for personal and public health.



1 Vision Zero Action Plan – TfL July 2018

## Definitions

The City of London Police (CoLP) classify injury severity as follows:

| Injury | Detailed Severity | Severity Classification |
|---|---|---|
| Deceased | Killed | Killed |
| Broken neck or back | Very Serious | Serious |
| Severe head injury | Very Serious | Serious |
| Severe chest injury, any difficulty breathing | Very Serious | Serious |
| Internal injuries | Very Serious | Serious |
| Multiple severe injuries, unconscious | Very Serious | Serious |
| Loss of arm or leg (or part) | Moderately Serious | Serious |
| Fractured Pelvis or upper leg | Moderately Serious | Serious |
| Other chest injury (not bruising) | Moderately Serious | Serious |
| Deep penetrating wound | Moderately Serious | Serious |
| Multiple severe injuries, conscious | Moderately Serious | Serious |
| Fractured lower leg/ankle/foot | Less Serious | Serious |
| Fractured arm/collarbone/hand | Less Serious | Serious |
| Deep cuts/lacerations | Less Serious | Serious |
| Other head injury | Less serious | Serious |
| Whiplash or neck pain | Slight | Slight |
| Shallow cuts/lacerations/abrasions | Slight | Slight |
| Sprains and strains | Slight | Slight |
| Bruising | Slight | Slight |
| Shock | Slight | Slight |

## Healthy Streets

The healthy streets approach is the Mayor of London's long-term plan for improving Londoners' and visitors' experiences of our streets.

> "The Healthy Streets Approach puts people, and their health, at the heart of decision making. This results in a healthier, more inclusive city where people choose to walk, cycle and use public transport".[1]

It focuses on 10 Healthy Street Indicators(Fig.1.) creating streets that are pleasant, safe and attractive, where noise, air pollution, accessibility and lack of seating and shelter are not barriers that prevent people - particularly our most vulnerable people - from getting out and about.

Reducing the danger and intimidation to people who choose to walk and cycle is essential to delivering the Healthy Streets Approach.




Fig.1 Lucy Saunders, The Indicators of the Healthy Street.

1 Mayor's Transport Strategy - GLA March 2018

## City of London Corporation Policy

This RDR Plan will deliver against a number of other key policy objectives.

### 1. City of London Draft Transport Strategy

The draft Transport Strategy sets out how we will manage transport and streets to ensure the Square Mile remains a great place to live, work, learn and visit. The Transport Strategy will be published in Spring 2019.

This Road Danger Reduction Plan addresses the following strategy outcomes:

- People using our streets and public spaces are safe and feel safe.
- Everyone will feel safe when travelling around the Square Mile.
- We will continually strive to reduce road danger and eliminate traffic related death and serious injury (Vision Zero).

### 2. City of London Local Implementation Plan 2017-21

The 2013 Road Danger Reduction plan forms part of the Local Implementation Plan (LIP). A statutory document setting out how the City Corporation, as a local highway authority, will implement the Mayor's Transport Strategy and utilise TFL funding to meet regional goals and objectives.

### 3. City of London Local Plan January 2015

The Local Plan is the City Corporation's vision, aims and objectives for planning policy in the City. A core strategic priority of the Local Plan is to ensure that transport systems are designed to reduce conflict between the high volumes of pedestrians and other road users. The City Corporation seeks to achieve this by considering safety within the design of transport schemes and by creating more traffic-free and traffic-calmed areas for pedestrians and cyclists.

Note: The new Local Plan will set out the City Corporation's vision, strategy and objectives for planning for the next 20 years. The Draft City Plan 2036 will be published in November 2018.

## 4. City of London Air Quality Action Plan 2015-20

An Air Quality Action Plan has been implemented to address poor air quality and, in general, the efficiency of public transport in relation to limited road space. The Air Quality Action Plan 2015-2020 states that the City has some of the poorest air quality in England. The Road Danger Reduction and Active Travel Plan aims to reduce traffic and shift to non-motorised modes.

## 5. Mayor's Transport Strategy – Healthy Streets & Vision Zero

The Mayor's Transport Strategy marks a shift towards the road danger reduction approach and the adoption of Vision Zero. Targeting road danger at its source by ensuring street environments incorporate safe speeds, safe people, safe design and safe vehicles. With Vision Zero, the road danger reduction approach is integral to the delivery of all schemes on the City's streets. The Mayor's aim is for all deaths and serious injuries from road collisions to be eliminated by 2041.

# Baseline

The City is the historic centre of London and is also home to the leading financial centre in the world. There are fewer private cars than in other parts of London, and a higher density of pedestrians and cyclists, particularly at peak times, than anywhere in the country.

## Population and Growth

The City has a resident population of approximately 9,000 people and a very substantial population of workers commuting into the Square Mile every day.

There has been significant recent growth from 356,600 workers in 2010 rising to 513,000 by 2017, a 44% increase over the period. New office developments and increased public transport capacity is bringing more pedestrian travel demand, placing extra pressure on existing pedestrian facilities. Recent casualty trends show that an increase in pedestrian casualties closely mirrors the increase in employment numbers. With predicted further increases, reducing risk of injury to pedestrians is the priority for this plan.

This growth in City commuter population will likely continue after the opening of new transport infrastructure such as Crossrail, Bank Station and Northern Line upgrade.

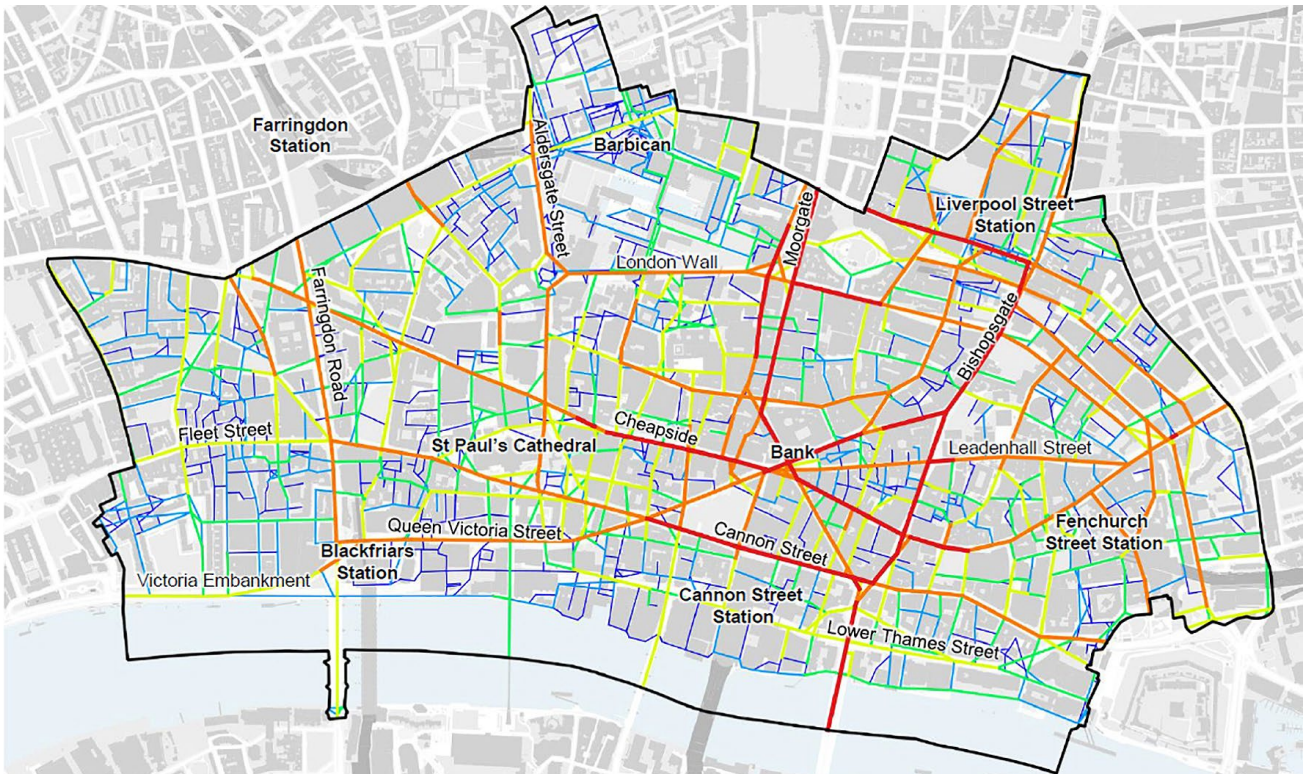



Fig.2. Space Syntax pedestrian demand modelling: 2026 projected. Red = highest flows.

The predicted increase in demand is illustrated by a recent Space Syntax report(Fig.2.) (2016), which shows the strongest demand, present and future, in areas surrounding the new Crossrail station entrances, Bank Station, London Bridge and on Bishopsgate.

Existing footways are unlikely to be able to absorb this demand, and therefore it seems inevitable that there will be additional overspill onto the carriageway, resulting in further conflict with motor vehicles and cycles.

## Changes in Travel in The City

Over the past ten years the number of all motor vehicles on the City streets has reduced. The most significant change is the almost three-fold increase in cycling, which in 2016 overtook cars to become the most common vehicle type on City streets(Fig.3.).

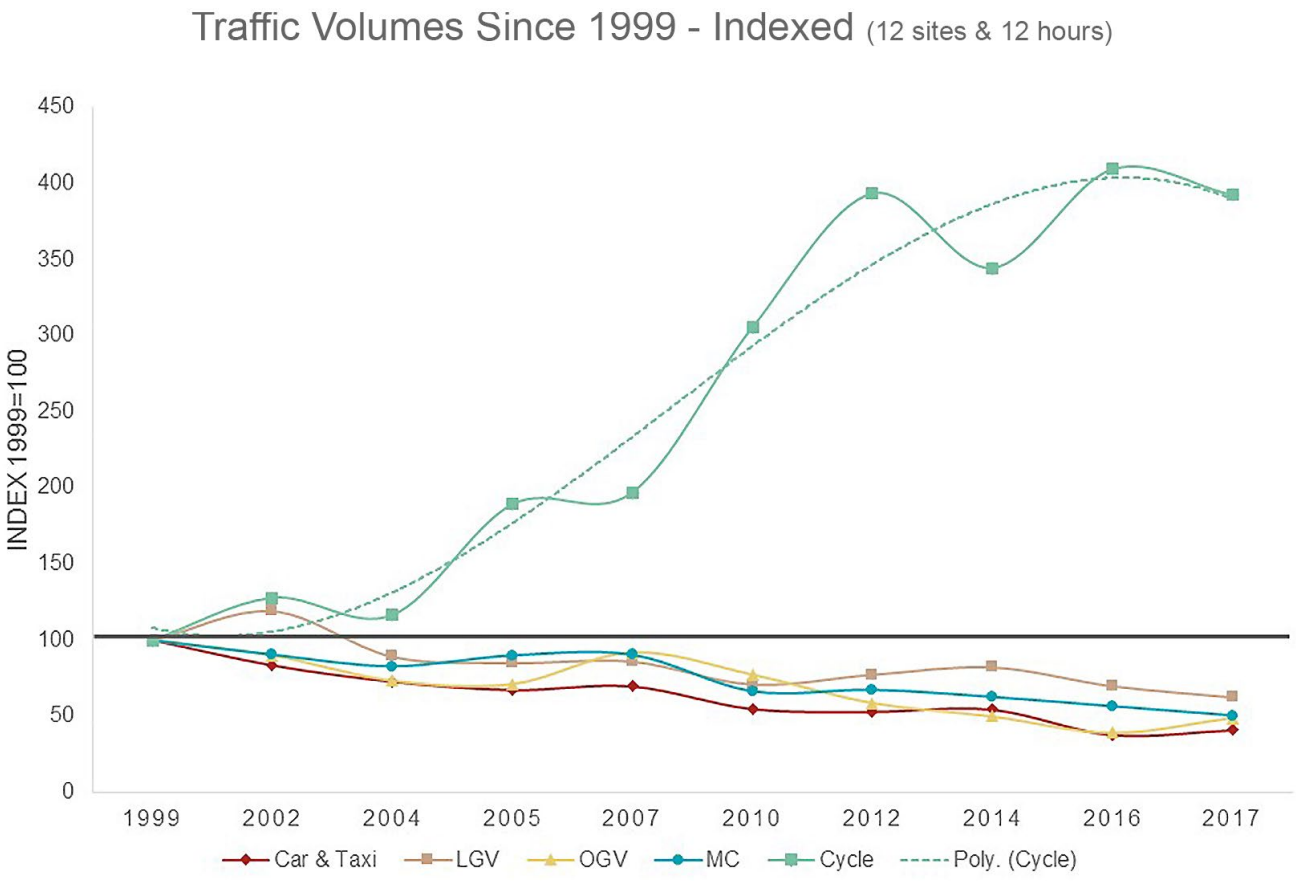



Fig 3. Screenline counts since 1999. The numbers of cars and taxis have approximately halved during the period, whilst cycling has tripled. CoL Screenline Counts total flow 0700-1900.

Heavy and medium weight goods vehicles together make up only 5% of the traffic mix passing through the City screen-lines. Light goods vehicles (LGV) account for 18% of traffic. Despite their relatively low number, goods vehicles are a significant contributor to collisions which cause death or serious injury to cyclists and pedestrians.

## Changes to The Profile of Killed or Seriously Injured Casualties

Since 2005 the total number of people killed or seriously injured in the City of London has not changed substantially. However, there have been shifts in the types of collision.

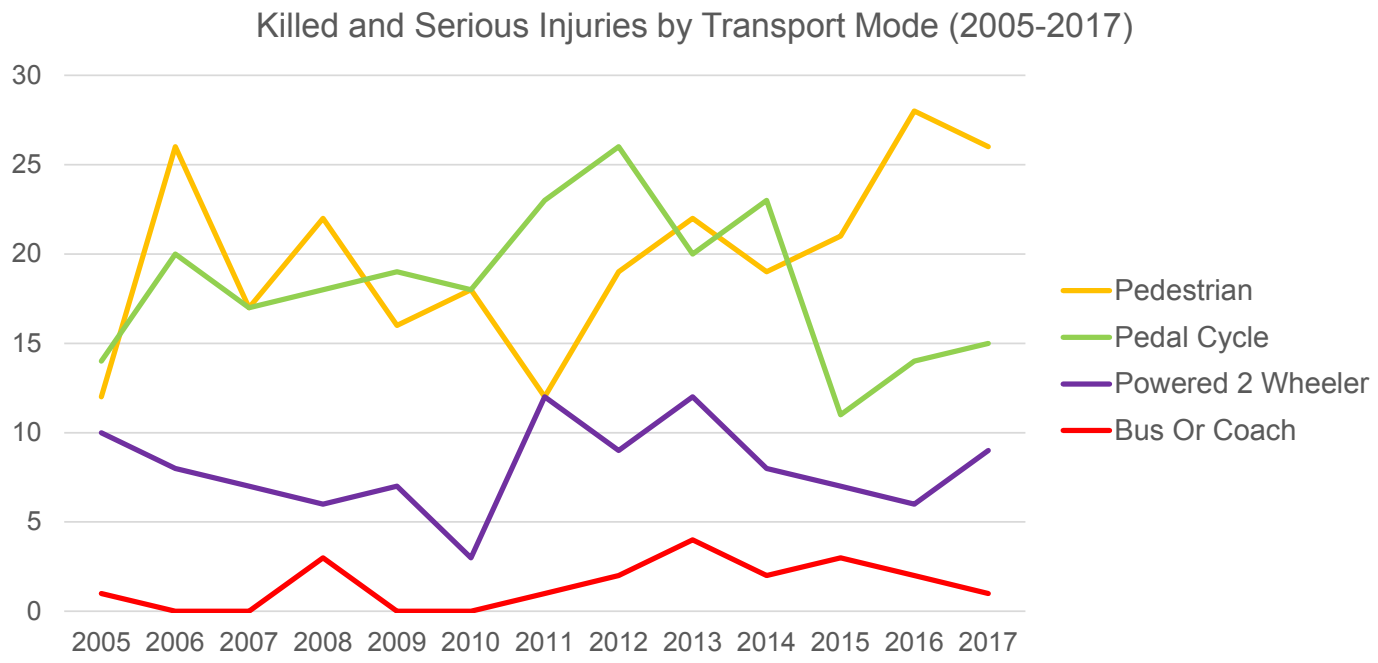



Fig.4. Trends - Killed or Seriously Injured collisions by mode CoL 2005- 2017.

The number of journeys by pedal cycle has continued to increase, but the numbers of people riding bicycles being seriously injured shows a declining trend, and there were no fatalities in 2016 or 2017. The number of people walking in the City has been rising, and an increasing trend to the numbers of people being seriously injured on foot. Three of the four fatalities on City streets in 2016 and 2017 were pedestrians.

There has been a 35% increase in the City worker population since 2010, whilst in previous years the number of pedestrian fartalities or serious injuries were aligned to this increase, more recently the number has not continued to mirror this trend(Fig.4.).

# Section 2

## Targets

# Vision Zero Targets

The City Corporation's current position is to pursue the Mayor's objective of Vision Zero and eliminate all KSI by 2041.

We will adopt the 2030 target of reduction of 70% of KSI against 2010-14 levels. This would give us a target of reducing the number of KSI to16 by 2030. We will set annual targets to be assessed on a three-year rolling average to meet the 2030 target with linear reductions.

We will aim to publish an annual Road Danger Reduction Partnership report that will set out our progress towards the delivery of these targets and set targets for the year ahead.

Based on the figures below(Fig.5.), our first target for 2019 will be 47 KSI which is a 7.5% reduction from 2014 – 2016 average.

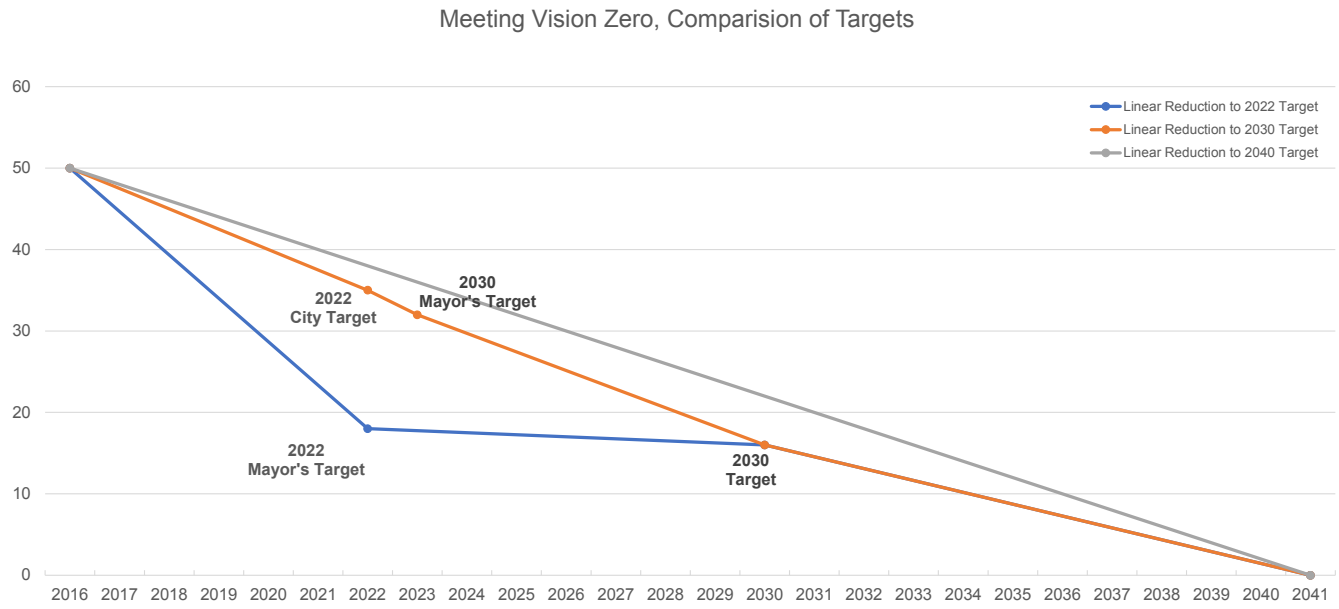



Fig.5. Trends - Meeting Vision Zero, Comparison of Targets

Vision Zero is about protecting people and preventing injury. It is based on organising transport systems that reduce the opportunity and likelihood for harm, rather than statistics. Having achievable targets are, however, important to monitor progress. Therefore, the City Corporation will adopt the 2030 interim target and aim to meet the Mayor's 2041 vision.

Note: The way that Police record road injuries together with the introduction of online injury reporting, has led to an increase in Serious Injuries since end 2017. Targets may therefore need to be adjusted going forward.

## The need for an ambitious approach

We estimate as many as 10 million road crossing are made by pedestrians in the City each day and human error is part of the Vision Zero equation, hence a focus on slowing down trafffic. The persistent increase in pedestrian killed and serious injury numbers may be linked to drivers, powered two-wheeler riders and cyclists failing to anticipate pedestrian behaviours and movements by slowing down, being courteous and taking due care combined with:

- Increased crowding of footways, leading to pedestrians spilling out onto the carriageway.
- Long wait times at pedestrian crossings, leading to chance-taking.
- Pedestrians obscured when crossing from between parked and queuing vehicles with motorists failing to see/anticipate a crossing pedestrian.
- Pedestrian/cyclist conflicts caused by pedestrians moving through congestion and failing to anticipate filtering cyclists and powered-two-wheelers and vice-versa.

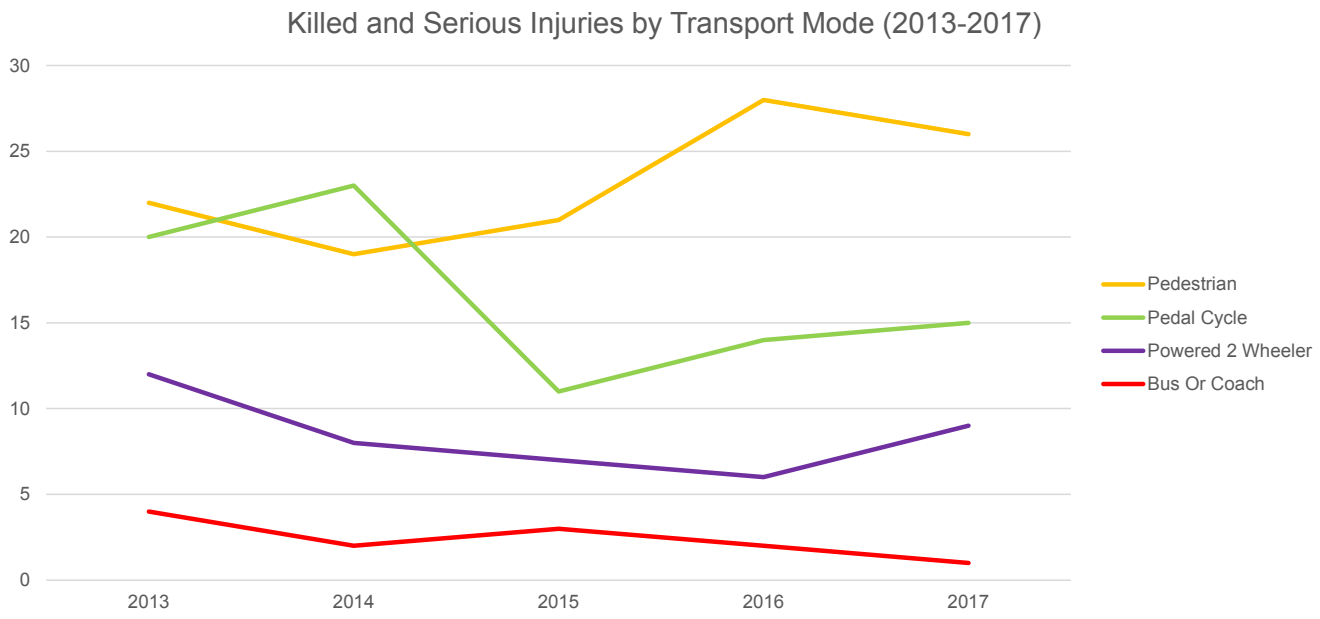



Fig.6. Killed and Serious Injuries by Transport Mode (2013-2017)

While there has been a reduction in the numbers of killed and serious injuries to people cycling(Fig.6.), six of the nine fatal injuries in the period between 2010 – 2016 were to cyclists, further reducing cycling fatalities and serious injuries will therefore remain a core focus of our work.

In aggregate, motor traffic inflicts the most injuries on vulnerable road users, with taxis, cars and goods vehicles causing the most harm(Fig.7.). Harm done by cars has been falling, but this is broadly consistent with the drop-in number of cars crossing the City screen-lines since 1999.

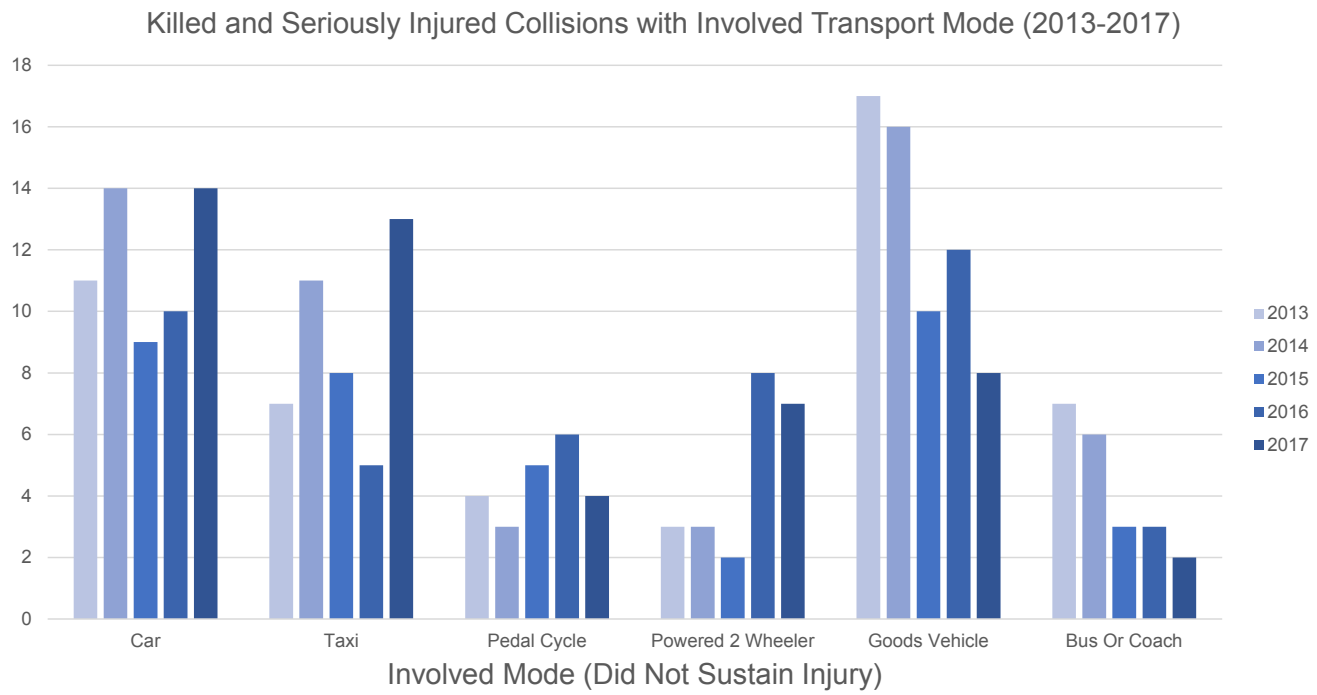



Fig.7. Killed and Seriously Injured Collisions with Involved Transport Mode (2013-2017)

The introduction of stricter standards for driver training and Fleet Operators (FORS) certification as a condition of contract and planning permission for new developments may have influenced a sharp drop in harm caused by goods vehicles.

Harm caused by motorcycles and taxis has fluctuated but remained relatively constant Harm caused by cyclists has remained constant on average even with increasing ridership.

## Where are people being hurt?

The main clusters of injuries (2011 – 2016 report) in the City are at:

- West Smithfield/Farringdon Junction (cyclist/motorcyclists involvement).
- Fleet Street/Farringdon Street (cyclists).
- Temple Avenue/Victoria Embankment (motorcyclists).
- London Wall/Moorgate (motorcyclists and pedestrians).
- Bishopsgate (pedestrians).
- Bank Junction (cyclists).
- Cannon Street/King William Street/Monument junction (cyclists).
- Fenchurch Street/Gracechurch Street (pedestrians and motorcyclists).

These recorded clusters do not take into account the recent implementation of Cycling Superhighways (north-south, at Blackfriars; and east-west along Lower Thames Street). The success, or otherwise, of these schemes will be judged at least three years following their completion in 2016, with the northerly extension of the north-south route programmed to start in Autumn 2017.

The evidence presented underlines issues that the road danger reduction approach needs to address, including:

- An increasing weight of demand for walking and cycling.
- Ongoing increases in the number of pedestrians killed and seriously injured and slightly injured in road collisions – in line with increase in number of pedestrian trips.
- An ongoing reduction in the number of motor vehicles, with cyclists now surpassing the number of private cars crossing the screen-lines from 2016 and providing opportunities to expand public spaces for people.

# Section 3

# Implementation Plan

In this ambitious five-year plan, we will deliver ten steps grouped by the Safe System Approach to achieve reduction in KSIs.

# Ten Steps in 5 Years

In this Section we summarise our current and programmed projects and introduce a strategic programme of activities to be developed and implemented over the lifespan of this RDR Plan.

# Theme 1: Safer Streets

### Step 1. Safer Street Design

City Corporation will continue to work with the City of London Police (CoLP) to monitor trends in collision data to identify the locations and causes of collisions.

Observational studies at collision hotspots guide the implementation of physical changes to street design, reducing the opportunity for the manoeuvres and behaviours that lead to collisions that cause injury. All new street design changes will be promoted to the local community.

**Planned Projects**

Planned projects that are being designed to cater for the rapidly rising numbers of people walking and cycling. The priority locations for change by 2030, using analysis of data from 2012 – provisional 2017/18 data, are:

- Bank Junction - permanent scheme.
- Eastern Cluster public realm improvement.
- Moorgate (London Wall to Eldon Street)
- High Holborn (Holborn Circus to Warwick Lane)
- Cannon Street (Mansion House Station to New Change)

- St Paul's Gyratory
- Aldersgate Street/Beech Street
- Fleet Street/New Fetter Lane Junction
- Lombard Street – Fenchurch Street Corridor
- Quietways Phase 2.

In addition, we will work with Transport for London (TfL) to deliver changes at the following prior-ity locations on the Transport for London Road Network (TLRN):

- Extension of north-south Cycle Superhighway (Farringdon Road).
- Bishopsgate and Liverpool Street Area
- Monument Junction
- Embankment (Temple Avenue to Puddle Dock)
- Mansell Street
- Southwark Bridge/Lower Thames Street
- Upper Thames Street (London Bridge to Eastcheap)

## Monitoring Collision Data

Monitoring collision data provides the foundation of all road safety education, promotion and engineering. It tells us where collisions are taking place, what behaviours and manoeuvres are contributing to these collisions and which modes of transport are involved.

In the Square Mile, the absolute numbers and percentages of people travelling on foot, bicycle and motorcycle are very high. These people are also the most vulnerable and can be very seriously injured or killed when involved in a collision with a motor-vehicle, especially if it is travelling at speed. The CoLP officers are one of the first responders to collisions that cause injury in the Square Mile. They report the location of the collision, the vehicles involved, the vehicle manoeuvres and other contributory factors that led to the collision. The statistics gathered from these roadside reports relating to personal injury accidents on public roads are recorded using the STATS19 accident reporting form.

These roadside reports include details such as make and model of vehicles or pedestrian involvement, level of injury sustained, time of day, weather conditions and behavioural factors that the attending officer concludes are related to the collision. These factors

are then analysed to identify trends, locations and road conditions. These factors are mapped in the Appendices.

After identifying where the collisions are taking place, an observational study of the area is performed to propose new street design solutions. Observations are undertaken on foot, bicycle or motorcycle so that a full understanding of the factors at play can be established. Measures proposed would depend on the situation, but can include pedestrian refuge, crossings, traffic signals, raised crossings, reducing carriageway width.

## Working with TfL on the TLRN

Several streets in the City are controlled by TfL The main trunk roads are controlled by TfL. 45% of the collisions which cause injury in the City take place TLRN 'red routes'. We will work through forums such as the RDRP to develop collaborative schemes to work towards making these routes safer.

## Road Danger Reduction Engineering Programme

While engineering major junctions and corridors can take many years from inception to completion, The City Corporation will deliver a Road Danger Reduction Engineering Programme of minor works to improve the safety of the City's streets.

The proposed programme of works for Road Danger Reduction Engineering either under way or planned for commencement 2018-20 (subject to change, correct at time of writing):

- Aldersgate St/Beech St - Lining scheme to mark out stopping positions for right turning vehicles is identified.
- London Wall/Wormwood St/Old Broad St - Possible co-ordination with Quietways Phase 2.
- Gt. Swan Alley/Moorgate - Scheme to introduce a pedestrian refuge island on Moorgate (just north of junction with Great Swan Alley) has been identified.
- Fenchurch St/Lloyds Ave - A potential scheme to introduce a raised junction table on Lloyds Avenue.
- Bouverie St/Fleet St - Part of the Fleet Street/Fetter Lane to Ludgate Hill/St Pauls Churchyard Link.
- Angel St/St. Martin's Le Grand - Possible co-ordination with Quietways Phase 2.
- Old Broad St/Threadneedle St - Possible co-ordination with Quietways Phase 2.

## Case Study – Snow Hill/Holborn Viaduct

An example of what the Road Danger Reduction Engineering programme would deliver.

### Collision Analysis

Snow Hill / Holborn Viaduct was the sixth most dangerous junction on the City's highway network. In the three years to October 2016, there were 12 collisions which resulted in 13 casualties. Of these casualties, two were serious and 11 slight.

| Collisions involving | Casualty | Severity |
|---|---|---|
| Cyclist/Taxi | Cyclist | Slight |
| Cyclists/LGV | Cyclist | Slight |
| Cyclists/Motorcyclist/LGV* | Cyclist & Motorcyclist | Serious & Serious |
| Cyclists/Bus | Cyclist | Slight |
| Taxi/Car | Taxi driver | Slight |
| Motorcyclist/LGV | Motorcyclist | Slight |
| Cyclists/LGV | Cyclist | Slight |
| Cyclists/Car | Cyclist | Slight |
| Cyclists/Car | Cyclist | Slight |
| Taxi/Car | Taxi driver | Slight |
| Cyclists/LGV | Cyclist | Slight |
| Cyclists/Taxi | Cyclist | Slight |

* one collision resulted in two casualties

10 out of the 12 collisions involved a right turning movement.

## Design Solution

The design solution was to introduce a dedicated lane for vehicles turning right into Snow Hill, footway build-outs, a raised carriageway in Snow Hill to reduce turning speeds and the removal of the taxi rank to improve inter-visibility(Fig.8.).

The dedicated right turn lane formalised the road space to provide a "refuge" where drivers/riders can position themselves without holding up traffic. They can take more time and attention to complete the turn without feeling pressurised.

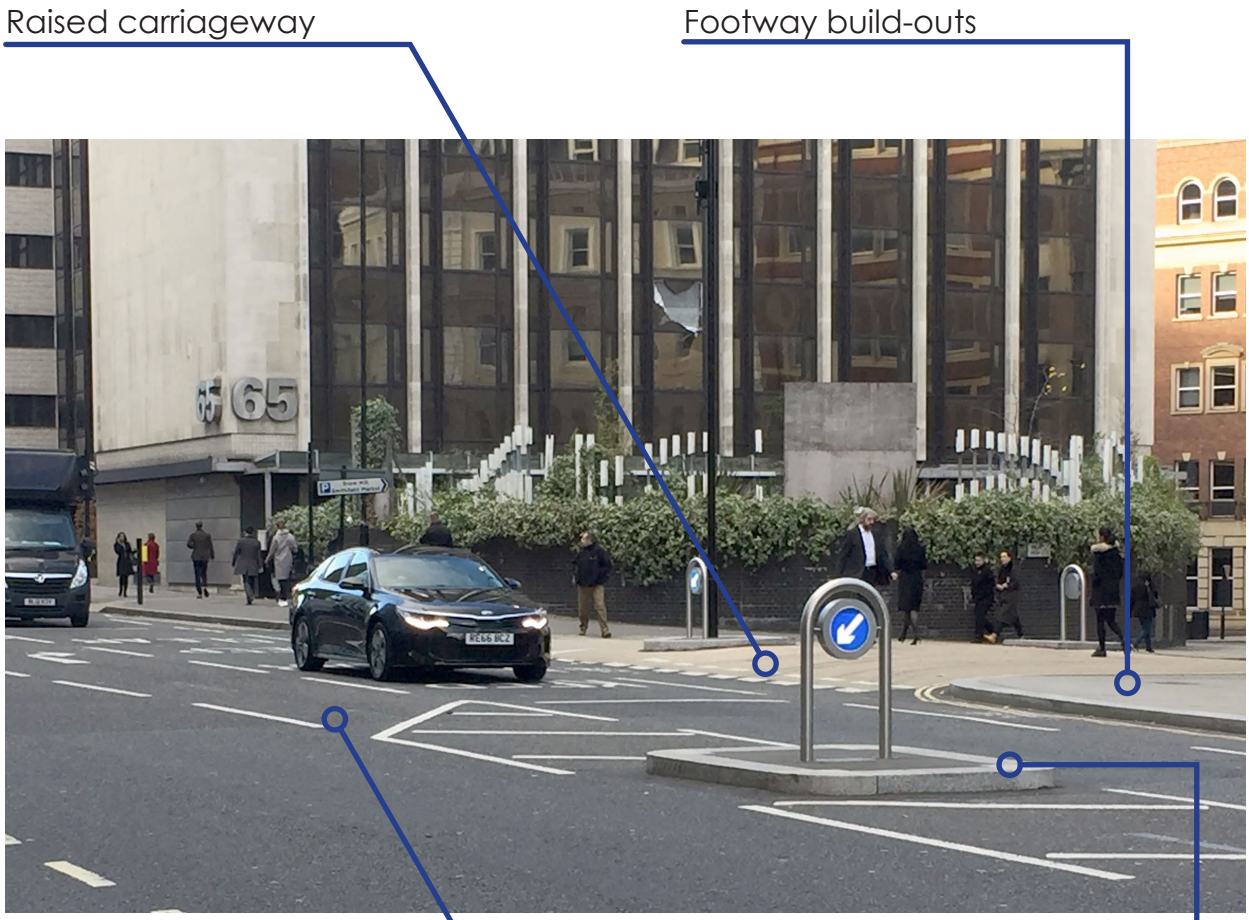



Fig.8. Snow Hill/Holborn Viaduct junction 2018

The estimated return (to the community) on the collision saving is £69,300 per annum or a first-year rate of return of 116%.

### Education and Promotion at Collision Hotspots

In addition to Road Danger Reduction engineering, targeted campaigns will be developed at casualty hotspots.

Video monitoring of Queen Street, an area of shared space where people on foot complained that people cycling were travelling too fast, showed that the presence of Traffic Marshalls in high visibility clothing, together with signs and road markings had a measurable impact on the speed and behaviour of people riding bicycles.

**Common behavioural collision factors:**

- Failed to look properly.
- Careless/Reckless or in a hurry.
- Crossing between stationary vehicles.
- Failed to judge another vehicle's speed.
- Pedestrian impaired by alcohol.
- Pedestrian inattention.
- Passenger opening a door in front of a cyclist.
- Right turn across a cyclist's path.
- Left turn across a cyclist's path.

This type of intervention, where possible delivered with the support of City Police, will be applied to reduce the common behaviours that lead to collisions in the City.

All physical change on the street will be accompanied by a local promotional campaign both in advance of works and immediately after completion. The objective is to inform the community of the works that have been completed to keep them safe, to deflect any criticism should any road user be negatively affected and enhance the effectiveness of new street layouts.

## Step 2. Timed Closures: Making space for active travel

The City Corporation will research opportunities for timed closures to certain classes of traffic. Areas with the highest density of active travellers, in particular those locations which are already road collision hotspots, will be prioritised. The objective is to make streets both safer and more comfortable for people walking and cycling.

Walking and cycling are the most popular modes of travel in the Square Mile, the requirement for space will increase with the opening of Crossrail in 2019 and

Underground/National Rail capacity enhancements. Prohibiting all motor traffic except buses at Bank Junction(Fig.9.) under a temporary traffic order has demonstrated that the closure of a high-profile junction can be delivered on a temporary basis, and, further to this, the success of the scheme has lead to its permanent implementation.




Fig.9. Addressing congestion at junctions

All proposals will include a significant element of stakeholder engagement, with support from the community, businesses, RDRP and other key stakeholders. Projects will research potential negative and positive impacts in advance of any trial and be ready to remove trial measures at short notice if they are proving either ineffective or due to public or stakeholder demands.

## Initiatives to be Progressed in Period of Action Plan

### Lunchtime streets

These are pilot timed street closures to motor traffic on a busy pedestrian environment during the lunchtime peak from 11:30am – 2:30pm. Evidence suggests that up to 30% of pedestrian injuries occur during this period, and public feedback shows there is a desire in several City areas area for a less trafficked environment.

The project will remove non-essential traffic from an area for the lunch period, allowing the closure of a section of a street to create extra space for the local community to enjoy a range of on-street activities during their lunch break. The aim is to engage with the public, re-envision how public space can be used, while also trialling methods of retiming freight and serving traffic.

We aim to deliver at least one pilot in 2019 and identify further with an objective of a rolling programme of at least three 'Lunchtime Streets' areas and events by the summer months of 2022.

### Car free weekends

The City Corporation will investigate and aim to organise a weekend free from motor traffic on some City streets to allow the local community to envision a car free area, whilst also seeking to attract visitors to the City. The City Corporation will work towards coordination of a car free weekend for International Car Free Day in September.

This usually coincides with Open House weekend, where many of the buildings in the Square Mile are open to the public. This attracts a large number of visitors to the City; thus traffic free streets will provide additional comfort and safety for the public.

### Supporting residents and third parties to use City Streets

We will use our engagement with City communities to seek to work with them to facilitate events on the City streets that support the promotion of safe walking and cycling.

### Supporting and facilitating closures by third parties and residents

We will continue to support activities such as Ride London – FreeCycle

We will seek to work with event organisers such as Nocturne to use the traffic free circuit before the racing begins as space for safe family cycling, inviting residents and City workers to participate.

## Examples from overseas

Summer Streets, New York: Started by Mayor Bloomberg in 2008, this event continues to attract mainstream sponsorship and huge crowds to enjoy Central New York without motor traffic(Fig.10.).



Fig.10. Summer Streets - New York. Source: https://www.nyc-arts.org/events

Summer Streets, Regent Street, London: Initially trialled in 2016, this is now an annual event with the length of Regent Street beoming pedestrianised every Sunday in July, allowing Londoners and visitors enjoy a range of exhibitions, games, talks, pop-ups and shows on offer throughout the street (Fig.11.).



Fig.11. Summer Streets, Regent Street. Source: www.regentstreetonline.com

# Theme 2: Safer Speeds

## Step 3. Reducing Traffic Speed

The greater the speed the more severe the injury when a vehicle collides with a person. Stopping distances increase with speed and reaction times reduce, thus reducing speed is at the heart of road danger reduction.

### 15mph limit

The Draft Transport Strategy proposes that due to the high numbers of active travellers the City Corporation will seek to lower the current 20mph speed limit to 15mph within the City. Speed awareness, education and engagement with all road users is therefore a core component of this plan.

### Speed Awareness - Education and Engagement

Evidence from camera studies at Queen Street shows that these campaigns can be successful in slowing the speed of traffic. They also effectively engage the local community, encouraging vigilance at areas where collisions cause injury.

#### Community Road Watch

We will work with the CoLP to appeal to City workers and residents to participate in Community Road Watch. This is where members of the public use speed guns to measure the speed of vehicles outside their workplace, or place of residence. Police Officers are in attendance for guidance and support. Speed offenders detected by this action are sent a warning letter.

#### Speed Awareness Campaign

A visible on street presence at key areas of danger is an effective way to influence traffic speed and the behaviour of road users. A variety of techniques can be deployed, the simplest being people dressed in highly visible clothing. Others include signage and engagement events.

### Road User Engagement

We will work with the CoLP to engage with stakeholders in the freight, construction, taxi, private hire, cycle and motor cycle industry and groups as well as businesses to encourage slower speeds.

### Vehicle Activated Signage

We will investigate opportunities for installation of vehicle activated signage.

### Enforcement

The CoLP will continue to enforce the 20mph limit.

### Technology

#### Speed Cameras

The City has an average speed camera in use on Tower Bridge. We will investigate the opportunity for further use of enforcement technologies during the period of this plan.

#### Intelligent Speed Adaptation

We will investigate the opportunity of 'Intelligent Speed Adaptation'[1] to automatically control vehicle speeds on City Corporation vehicles and work with TfL to encourage the adoption on buses.

## Step 4. Trials and Temporary Projects

Temporary, low cost interventions, such as paint and planters, will be installed to change the look and feel of the streets to prioritize active travel. While traffic will not be physically limited, the aim of these interventions is to influence riders and drivers to travel at lower speeds and travel with care in areas where large numbers of people walk or cycle. These measures will be monitored, and if appropriate made permanent.

We will seek opportunities to use materials such as paint, planters and temporary seating, to change how a street looks and feels. The aim is to indicate walking and cycling priority zones.

Examples of this approach include the colourful crossings recently installed at the Beech Street and Aldersgate Street junction(Fig.12.).

All these experimental schemes will be monitored to assess positive and negative impacts. If the scheme is popular and it works without causing disruption it could be made permanent. If not, it can be removed.

- We will look at using colour to indicate to drivers and riders that they are entering an area where the road space is for people, not only for movement of vehicles.

1 Intelligent speed adaptation (ISA) is an in-vehicle system which uses GPS and a database of speed restrictions to limit vehicle speeds.




Fig.12. Beech Street/Aldersgate Junction 2018

- We will investigate the use of a temporary artwork, engaging the local community in redesigning their streets.
- We will approach our partners at TfL to propose the trial of colours and designs on the main streets.
- We will investigate 'gateway' treatments at key entry points to the City, to support slower speeds, and make all those who enter appreciate that the City is different.
- We will seek to add to the green space within the City, particularly for the summer months. Where possible suspending parking and loading bays and installing parklets, making space for the community to enjoy lunch and meetings in the public realm. These pop-up parks are popular in many London Boroughs.

We will aim to use these activities to make the local streets 'Active Travel Priority Zones', to support the proposed 15mph speed limit in the Draft Transport Strategy.

# Theme 3: Safer Vehicles

## Step 5. Safer Freight Operation

### Fleet Operator Recognition Scheme

The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation scheme for fleet operators. The scheme aims to raise the level of quality within fleet operations, and to demonstrate which operators are achieving best practice in safety, efficiency, and environmental protection.

The City Corporation will continue to work with every construction site in the City to ensure the safest Heavy Goods Vehicles and best trained drivers operate in the Square Mile. We will work to encourage City businesses to promote safer vehicles, driving standards and training, for their supply chains.

### Safer Freight

We will improve the safety of motor vehicles which use City's streets by using the FORS to integrate safety into fleets. We will support the continued inspection of over 1000 vehicles each year with the CoLP Commercial Vehicles Unit.

### City Mark

We will continue the CityMark accreditation programme at construction sites in the Square Mile to ensure vehicles meet FORS standards and will encourage the inclusion of CityMark in Construction Logistic Plans (CLP).

FORS ensures that drivers were trained through the Safer Urban Driver Scheme to drive safely in urban areas and that the lorries are fitted with the latest safety equipment to reduce blind spots.




Fig.13. Recognising and celebrating professional excellence and attentiveness towards vulnerable road users.

Construction contractors in the City are encouraged to sign up to Construction Logistics and Community Safety Scheme (CLOCS) to monitor the safety of the vehicles and drivers entering their sites.

CityMark rewards sites that provide evidence of their processes to monitor vehicle safety with a City Mark sign. The scheme is managed through the Considerate Constructors Scheme.

The largest category of vehicle, at over 7.5 tonnes, makes up less than 1% of the traffic but have been involved in 30% of the road fatalities in the City. The design of these vehicles leaves blind spots for the drivers and is a cause of deaths to cyclists and pedestrians in the City and across London. (2012 – 2017)

## Direct Vision Standard

Low Entry Cab lorries puts drivers in a lower position with bigger windows. This design reduces blind spots and enhances the safety of people walking and cycling. We will work with our partners at fleet operators and construction sites to promote the uptake of this design of vehicle.

## City Mark for Vans

We will work with stakeholders with the ambition to develop a scheme that encourages better trained drivers and safer vans in the City. We will establish a steering group of key organisations such as the Institute for Couriers, delivery firms and their customers to lead the project, which will promote accreditation such as FORS for vans, 'Vansmart'.

## Safer Powered Two Wheelers

Supporting TfL with developing a motorcycle FORS standard for couriers and delivery riders, which will include improved safety training.

We will work with industry, sector associations and motorcycle riders to identify and understand levers for motorcyclists to choose lighter, less powered vehicles when riding to and around the City.

## Step 6. Traffic Reduction

Making space for safer active travel will require a reduction in the motor vehicle traffic in the City. We will work to support the aims of the Draft Transport Strategy through engagement and promotion to reduce non-essential traffic from the City's streets, with an emphasis on reducing traffic at peak times when most people on foot or bicycle are travelling.

Reducing motor traffic is key to improving air quality and delivering Vision Zero. We will work on engagement and educational initiatives through forums such as the Active City Network (ACN) to support the traffic reduction aims of the Draft Transport Strategy.

We will engage with City businesses to promote freight consolidation, and the reduction in personal deliveries made to offices. We will seek to promote active travel alternatives for non-essential private hire or taxi trips for business travel.

We will seek to pilot initiatives that can achieve these outcomes throughout the period of this plan.

Measures and initiatives to reduce motor traffic in the Square Mile will include:

- Supporting TfL's efforts to reduce the number of Private Hire Vehicles operating in central London. We will also work with TfL and large operators to reduce circulation and empty running and promote ridesharing.
- Working with the taxi industry to reduce empty running of taxis within the Square Mile, including a City-wide review of taxi ranks and promotion of ride hailing apps.
- Working with businesses to reduce the use of private cars, private hire vehicles and taxis for commuting and for trips within the Square Mile and central London.

# Theme 4: Safer Behaviours

## Step 7. Behaviour Change: Attitudes to travel programme

We will develop a series of campaigns, programmes and events to influence the attitudes of road users. To achieve real reductions in fatal or serious injuries a change of culture is required. Empathy towards other road users and understanding of their behaviours reduces conflict and collisions. Attitudinal surveys will be taken annually to measure the impact over time.




Fig.13. Being safe is up to all of us working together, with emphasis on those road users and behaviours that pose the greatest risk to others.

An important step towards safer streets is to influence attitudes to increase empathy between different road users.

## Does it Work?

Evidence shows that people who regularly use a vulnerable mode in the City (walking, cycling or motor cycling) are more considerate towards them when driving. It is this finding upon which the Safer Urban Driver Training is based, whereby lorry drivers spend time learning to cycle a bicycle.

Within the City, collision data shows that people who drive black taxis are half as likely to collide with people on powered two wheelers than the average driver but collide with people on bicycles proportionally the same as the average driver.

An attitudinal study from 2017[1] showed that cabbies also have high levels of empathy towards Powered Two-Wheeler riders. The Knowledge is something all taxi drivers must do to learn London's streets, usually over several years done on a powered two-wheeler, which may explain this.

Therefore, to achieve real reductions in road injuries, not only do we need to change the streets, we also need to change the 'culture'.

## What We Want to Achieve

Aggressive riding or driving must become socially unacceptable. A 'social norms' campaign will require many years of repeating the key messages to drive or ride slowly and safely.

## Be Brake Ready Campaign

We must encourage all our drivers and riders to recognise that there are almost 513,000 City workers, alongside thousands of visitors to the Square Mile. Almost all these people walk at some point during the day. This means there are millions street crossings every day. The chance of someone making a mistake and crossing in front of a moving vehicle is high.

> People make mistakes, so our transport system needs to accommodate human error and unpredictability (TfL Vision Zero).

The Be Brake Ready campaign, aims to remind riders and drivers to ride or drive at a pace where collisions will not result in serious injury.

1Source: www.activecitynetwork.com

When arriving in the City of London, we want all our road users (delivery drivers, motorcyclists, cyclists and taxi drivers) to behave courteously to each other. Being courteous and polite is a hallmark of British culture, which is renowned worldwide, and people's behaviour is influenced by the perception of how their peers think. We, therefore, alongside Be Brake Ready propose the development and promotion of The City Etiquette Guide for all street users, delivering high profile promotions to raise awareness of behaviours which lead to collisions and promote the City Etiquette principles:

**Be Brake Ready**

- Be Aware.
- Look Around.
- Be considerate.
- Less Haste.

Different platforms and approaches will be used for engagement: video, web, events and marketing throughout a five-year period as we develop this campaign. The quantifiable outputs will include awareness and change of attitudes, measured through surveys and media coverage.

The ACN will be central to the engagement of drivers, riders and pedestrians to this programme. Most cyclists and pedestrians are employees of City businesses, while most motorists are professionals servicing employers. Changing behaviour is a long-term process, and attitudes to the travel programme will run for several years. Continual monitoring will provide lessons, which will be applied to hone the effectiveness of the messages and delivery.

## Events in the Public Realm – Re-envisioning the streets

We will hold events in the public realm to promote safer travel messages.

The objective of events is to allow the community to envision a public space focussed on people rather than traffic. Public events help show that streets are not just for traffic, but also great places for people to meet and chat, helping to promote active modes of travel, generate positive publicity for the City of London and allow consultations on big issues such as the safety of pedestrians.

Cities around the world have used similar events to engage their communities towards transforming their streets to be safer and more welcoming for active travellers. In 2019 we will aim to launch two public events in the City which are detailed above in Step Two – Timed Closures.

1. Lunchtime Streets where selected streets will be reserved for people for lunchtime
2. Car Free Day – Where sections of the City are closed to traffic for the weekend

## Step 8. Safer Riders

We will develop rider forums to engage with motor and pedal cyclists to better understand the issues and research opportunities to make riding safer. We will also promote cycle and powered two-wheeler (P2W) training, maintenance, and issue advice on safer routes, behaviours and vehicles.

### Improving the Safety of People Riding Powered Two-Wheelers (P2W)

Motorcycles and scooters are a major area of concern since they are involved in 25% of all collisions that cause fatal or serious injuries in the City of London. Most injuries are to P2W riders, usually in conflict with other motor vehicles, but P2Ws are also involved in collisions with pedestrians.




Fig.14. Speed and the ability to slide through traffic also increase the chances of an accident.

On average annually, 3.2 pedestrians and 1.2 cyclists are seriously injured when in collision with a P2W. Throughout the period of this plan, we will work with the representative groups for powered two-wheeler riders, to research potential mitigation interventions.

We will work with established industry and user associations and groups, to engage with riders in the Square Mile. We will use these connections to the rider community to

better understand the issues and research opportunities to make riding safer. We will also promote rider training, maintenance of bikes, and issue advice on safer riding.

The most common collision type is when a someone steps out between stationary vehicles into the path of an on-coming P2W, which is filtering through stationary traffic. The 'Be Brake Ready' campaign will focus on this collision type. Usually the bike rider and the person walking are both injured when a collision occurs.

We will also therefore seek to promote messages to people walking to 'Look out before Stepping Out.'

We will also target behaviour change campaigns at both commuter and professional riders and offer training at free or reduced costs to all.

Delivery companies employ P2W riders to deliver small items, and fast food delivery companies often employ relatively inexperienced riders on 50 – 125cc bikes. To ride this type of vehicle currently requires only one day of training if they carry L-plates. We will work with TfL to promote better training for all delivery riders.

We will work with Industry and advocacy groups to encourage riders in the City to choose lighter weight, lower emission more easily controlled bikes to travel in the Square Mile.

We will join London wide initiatives to promote safer riding of powered two-wheelers and better understand the opportunities for making travel on a P2W safer for all.

## Safer Cycling

We will work to encourage good safe cycling, while discouraging aggressive anti-social cycling in the City of London.

Cycling in the City of London has grown in popularity and in 2016 pedal cyclists represented almost 26% of vehicles. The safety for cyclists has improved, but 15 people who were cycling were seriously injured, so there is still more work to be done.

As the popularity of cycling grows, there has also been an increase in numbers of people on bicycles involved in collisions with pedestrians. This collision type often leads to injury of both the rider and the person on foot. Surveys show that the City of London population considers the behaviour of cyclists to be very concerning.

In 2017 there were 19 collisions between people walking and cycling, causing 25 personal injuries.

- 5 x Serious injuries: 4 people on foot and 1 person riding a bicycle.
- 20 x Slight injuries: 15 to pedestrians and 5 to people riding a bicycle.

### Pedal Cyclist & Pedestrian Collision pair 2017 Contributory Factors

**Pedestrian**

Failed to look properly: 9

Wrong Use of Pedestrian Crossing Facility: 5

Failed to judge vehicle's path or speed: 3

Careless/Reckless/In a Hurry: 1

Wearing Dark Clothes at Night: 1

Crossed Road Masked by Stationary or Parked Vehicle: 1

**Pedal Cycle**

Travelling Too Fast For Conditions: 2

Disobeyed Pedestrian Crossing Facility: 1

Disobeyed Automatic Traffic Signal: 1

Although most of the contributory factors were attributed to pedestrians, they also suffered most injuries. With such large numbers of people walking in the City it can be expected that people will make mistakes.
We will therefore promote the need for people riding a bicycle to be aware of a high




Fig.15. Changing our urban context requires shared knowledge of behaviours and the built environment.

risk of collision with people suddenly stepping out in front of them. We will also work to promote the need of people walking to look out for people cycling.

We will work to reduce the speed of people on bicycles which will reduce the severity and number of these collisions. Camera studies show that campaigns at key junctions can slow average cycling speeds. We will work with the City Police to target people who contravene red signals on bicycles, while also supporting TfL in implementing Cycle Scoot, to smooth the flow of people cycling.

We will continue to offer free cycle checks (Dr Bike) at employer sites through the ACN and in the public realm, to help ensure bicycles are well maintained and the brakes work efficiently.

We will encourage the take-up of cycle training and provide cycle repair workshops, which we offer free of charge.

The level of cycle and goods vehicle conflict is high. This collision pair led to 22 fatalities or serious injury in the period 2011 - 2016. We will continue to work to raise awareness with riders of lorry blind spots and promote Safer Urban Driver training for goods vehicle drivers. We will also work on campaigns in the winter months to encourage people cycling to have working lights on their bicycles.

Breaking the law, jumping red lights and riding on the pavement, not only creates a hazard, but also increases the negative perception of people riding bikes. We will work with the City of London Police to reduce the incidence of this illegal behaviour.

We will work with established cycling groups such as the Bicycle Association and London Cycling Campaign, to engage with pedal cyclists to better understand the issues and research opportunities to make cycling safer in the City of London.

## Step 9. Safer Drivers

The City Corporation will work with its partners and City businesses to raise awareness and encourage enhanced driver training for all drivers. We will also look to promote the specific behaviours that reduce collisions, for example the 'Dutch Reach' approach for taxi passengers, using the far hand when opening taxi doors.

### Driver Training

Our key activities will be engagement with and education of all drivers in the City. We want to encourage as many drivers as possible to take Safer Urban Driver Training, as this includes half a day cycling.

We will also seek to organise walks and rides around the City for people who usually drive, so they can experience the City from a different perspective. The walking experience in the City is very different from other less busy areas of London, and it should

not be assumed that regular drivers have experienced it. The objective is to create an understanding and empathy towards vulnerable road users.

## Safer Driver Campaigns

We will work with contacts in the courier, taxi, private hire, facility management and fleet operator sectors on targeted campaigns to promote road safety messages at the drivers who regularly drive in the City. Examples could include:

Dutch Reach - work with organisations representing taxi and private hire drivers to implement a campaign for their passengers to look behind them before opening their door. To avoid collisions where a cyclists or motorcyclists are hit by an opening door(Fig.116.).

Be Brake Ready – a campaign to encourage drivers to travel more slowly and carefully in the City. We aim to make drivers aware that with such high numbers of people on foot and cycle, mistakes will happen, and they need to be ready to stop. With so many junctions in the Square Mile, extra speed will not improve journey times, but will add to risk.




Fig.16. Dutch Reach. Source: dutchreach.org

## Safer Buses

The Mayor's Transport Strategy has a focus on the safety of buses, with the following targets:

- 2022 – reduce the number of people who are killed or seriously injured in, or by, London buses by 70% against 2005-09 levels;
- 2030 – reduce the number of people killed in, or by, London buses to zero.

In the Square Mile there is an annual average of 12.4 injuries to pedestrians and 7.6 to cyclists, of which 2.8 and 1.6 are serious or fatal (2011 – 2015) involving buses or coaches. Of the injuries to pedestrians, most injuries are due to passengers falling over while the bus brakes or swerves suddenly.




Fig.17. The shift towards healthy streets provides long-term benefits to the quality of our life.

Working with bus operators, and through the RDRP and TfL we will support and encourage enhanced driver training for bus and coach drivers to look out for cyclists when pulling in or out of bus stops. We will also work with the bus depot managers to ensure that bus drivers are briefed not to accelerate quickly in the City.

We will also look at developing messages with TfL to encourage passengers to be aware of the danger.

# Theme 5: Awareness and Engagement

## Step 10. Stakeholder Engagement

### The Active City Network (ACN)

The ACN has been established with the aim of getting more people walking and cycling more safely. We will grow the network, engaging with businesses, residents and visitor destinations to promote safer behaviours and projects to achieve these aims.




Fig.18. London Bridge sees a large number of commuters during peak periods

The ACN is an engagement tool for communicating with businesses, residents, visitors and students, to plan and deliver road danger reduction and active travel promotional activities, such as those outlined above.

The objective is to have the City of London communities work to produce a sense of common ownership of the issues of danger and injury to active travellers. There are an estimated 513,000 employees working in the City of London, and over 85% of commuters

travel by active modes, walking or cycling the last mile to their workplace.
Employers also generate most of the motor traffic. Taxis, motor and pedal cycle couriers, vans making deliveries, and servicing vehicles are also involved in the collisions with active travellers who work in the buildings. Working with the supply chains of the employers, we will promote good driver behaviour through campaigns such as: Be Brake Ready.

We will offer employers a range of free services to support the safety of their staff in getting to and from work, and business travel such as: cycle training for staff, cycle repair workshops, and promotion of City walking routes.

The ACN provides a platform to communicate key messages to all employees to help avoid injury.

The ACN is currently managed as with a board chaired by Alderman Alison Gowman.

Activities will include:

- Business Conferences.
- Major public events – Lunchtime Streets.
- Dark Nights get lights for your bikes.
- Road Shows – in the workplace and outside.
- Best Practice Publications.
- Videos and materials for employee induction packs.
- Newsletters.
- Consultation on changes to deliveries.
- Other activities as agreed by the board.

## Road Danger Reduction Partnership (RDRP)

This established partnership, which is for the sharing of information at officer level between the CoLP, the City Corporation, TfL, London Fire Brigade, and the Greater London Authority (GLA) will be continued. Two annual RDRP meetings will be chaired by the Chairman of Planning and Transportation to monitor progress and agree actions towards meeting targets.

Since 45% of KSI collisions in the City of London occur on TfL controlled main streets, it is essential that we work closely with the GLA and TfL to develop solutions.

In an environment of cost savings and efficiencies, bringing together key stakeholders to plan, coordinate and collaborate efforts is vital.

Senior officer meetings will review the Road Danger Reduction Work Programme and set targets for the year ahead. To award this subject the gravitas it deserves and to engage at a higher level at the GLA and TfL, these meetings will be chaired by the Chairman of Planning and Transportation or assigned deputy.

The objective is to work at a senior level with TfL and the GLA to collaborate on proposals to address road danger on the City of London sections of the main trunk road network.

At policy level, the RDRP of senior officers includes the Director of City Transportation and Public Realm, the Chief Superintendent of the CoLP and other officers as appropriate.

The RDRP will meet twice a year to sign off the annual Road Danger Reduction Work Programme, which outlines what is being done in road danger reduction, setting targets and projects for the year ahead.

A second meeting will be arranged mid-year as an opportunity to discuss what each party is doing and how effective it is being.

At officer level, an established Operational Delivery Group provides a platform to share information and coordinate projects. This group will continue to meet quarterly.

We will invite officers from neighbouring Boroughs, which face similar challenges over large numbers of pedestrians and cyclists and high commuter flows, so that we can better coordinate programmes, and work together on cross-boundary issues. Officers from TfL will continue to be invited as the highway authority for the TfL controlled main trunk routes.

# Project Delivery Timeline

The major projects and programmes that will be delivered by the RDR Plan are summarised below. Delivery timelines and progress against targets will be revisited and updated annualy for the lifetime of this plan, and, additionally, updated to take account of the Transport Strategy in spring of 2019.

Development | Delivery | Ongoing

| Steps | Projects | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|---|---|---|---|---|---|---|
| Safer Street Design | Road Danger Reduction Engineering Programme | | | | | |
| Timed Closures | Lunchtime Streets | | | | | |
| | Car Free Day | | | | | |
| | Supporting third party events | | | | | |
| Reducing Speed | Community Road Watch | | | | | |
| | Speed Awareness | | | | | |
| | Technology - Speed / ISA | | | | | |
| | Stakeholder Engagment (see below) | | | | | |
| Trials & Temporary Projects | Junction and Street low cost trial | | | | | |
| | Parklet | | | | | |
| Safer Freight Operation | City Mark | | | | | |
| | City Mark for Vans | | | | | |
| | Safer P2W | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Traffic Reduction | Stakeholder Engagment (see below) | | | | | |
| Behaviour Change | Campaign - Be Brake Ready | | | | | |
| Safer Riders | Riders Engagement | | | | | |
| | Rider Training | | | | | |
| | Education and Engagement (ACN below) | | | | | |
| Safer Drivers | Safer Urban Driver Training | | | | | |
| | Safer Driving campaigns - e.g. Dutch Reach, Hold on | | | | | |
| Stakeholder Engagement | Active City Network | | | | | |
| | Road Dange Reduction Partnership | | | | | |

# Conclusion

# Conclusion

This plan is about people. It sets out a path to engage with all stakeholders to deliver road danger reduction and active travel in an exciting and engaging way.

As the central business district for the capital city, what we do as the City of London has influence nationwide. People look to us to lead by example and demonstrate progress. The entire UK economy is reliant on our investment in the City as a campus for companies that want to locate here because they can attract and retain the very best talent. The ability to move safely is therefore a priority.

At the same time, the City has an immense portfolio of heritage and architectural interest that will attract weekend and evening visitors. The success of Culture Mile being established around the Barbican, where creativity is the most valuable currency, will depend on visitors arriving on foot, cycle and public transport. It is therefore imperative that we base our strategy on the goal of enabling people to walk and cycle safely to their points of arrival.

Coordination with other initiatives such as the Culture Mile will be essential to reduce danger to our active travellers.

To reduce danger and deliver Vision Zero we need to work in partnership:

- All stakeholders will be asked to consider and work towards Vision Zero as our ultimate goal by 2041.
- Vision Zero and Road Danger Reduction will permeate all of our transport related activities.
- We seek to change attitudes and awareness in a non-confrontational way backed by enforcement.
- We will create a new language for our streets which welcomes people.
- With successful partnerships we can work with neighbouring boroughs to realise Vision Zero in central London.

We need to do this together!

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# ROAD DANGER REDUCTION AND ACTIVE TRAVEL PLAN ENGAGEMENT REPORT

Road Danger Reduction and Behaviour Change Team

October 1, 2018
City of London Corporation
Department of Built Environment

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## Summary and key findings

This Draft Road Danger Reduction and Active Travel plan (Draft Plan) looks forward five years from 2018 – 2023 and seeks to achieve a genuine reduction in danger for all. To make our streets safer and improve the quality of life for everyone in the City.

This report provides an overview of the results from the engagement activities over the consultation period. This engagement sought the views of the public and organisations with an interest in commenting on the Draft Plan. Engagement activities included an online survey, a series of on street engagement sessions and several drop-in sessions across the City. These activities took place from 5 June to the 5 August 2018. In total, 511 people accessed the survey of which, 506 continued the survey to completion. 497 were from residents, workers and visitors, while 12 of these were on behalf of an organisation.

The Draft Plan identified that the City of London is adopting Vision Zero with the ambition that nobody is Killed or Seriously Injured (KSI) on the City's Streets. To achieve this, it suggests adopting the Mayor of London's targets to reduce KSI by 70% against 2010-2014 levels by 2030 and eliminate all KSI by 2041.

Over 77% of people surveyed agreed with the trajectory of the targets set out in the Draft Plan. In addition, 70.3% of those who did not agree with the targets, felt the targets were not ambitious enough.

## Ten steps in five years towards a safer City

The Draft Plan identifies ‘ten steps in five years’ towards a Safer City. These steps aim to ensure the safety and comfort of vulnerable road users as a number one priority, while making active travel modes both safer and more appealing.

These ten steps, integrated with the three high level themes, demonstrate how the Draft Plan will meet the challenges and work towards Vision Zero over the strategy period 2018 – 2023.

The three themes: Theme 1. Engagement & Behaviour Change; Theme 2. Road Danger Reduction and Vision Zero; and Theme 3. Active Travel and Healthy Streets. All the themes and their respective steps received good support with at least 86% of respondents supporting or generally supporting these steps.

Those who “generally support the steps but wanted to see changes” and those that felt they “could not support the steps but would with changes” were asked to comment on why they did not outright support them. These changes requested under each key theme are summarised below:

***Theme 1: Engagement & Behaviour Change***

There was strong support from respondents to reduce traffic levels, develop engineering for safer street designs and priorities active travel, and to restructure the Draft Plan.

***Theme 2: Road Danger Reduction and Vision Zero***

There was strong support from respondents for more enforcement and for road users to be encouraged to have more responsibility for their own actions. There was also significant support to restructure the Draft Plan and for this theme to be listed before other themes.

***Theme 3: Active Travel and Healthy Streets***

There was strong support from respondents to reduce traffic levels, develop engineering for safer street designs and priorities and reallocate space to active modes of travel such as walking and cycling.

Only 4.5%, 2.8% and 7.5% of respondents saying they could not the support the steps, respectively for each theme. Some respondents believed that behaviour change alone would not be effective without the support of engineering and police enforcement. Others felt the targets were either too ambitious or not ambitious enough and a minority felt that some steps, especially in Theme 3 would create congestion, which in turn could harm business.

## Steps not covered in the Draft Plan

Around 62% of respondents felt that the Draft Plan encompassed the right steps. Those who felt this was not the case were asked to leave a response. The 172 responses raised questions and requested more information to be included on the following topics: Engineering, Reducing Motor Traffic, Segregation of Traffic, Safer Cycling Infrastructure, Permeant Street Closures and Active Travel Mode Prioritisation.

## Conclusion

Generally, the Draft Plans ambition to meet Vision Zero was well received with majority of respondents agreed with the trajectory of the targets and steps set out in the plan. Response text analysis, categorising the open-ended statements around the theme into detailed sub-topics recognised several key findings and recommendations:

1. Plan does not go far enough

20% of respondents did not agree with the targets and around 70% of these individuals felt the targets were not ambitious enough. This was reflected in their

comments that suggested more could be done to reduce motor traffic and be more ambitious with road closures.

2. Draft Plan structure refinement

Numerous comments related to the order of priority between the three themes, language and structure of the Draft Plan. The Draft Plan did not intend to give indication that one theme should be prioritised over another. It is recommended that the Final Plan clarifies this and reconsiders its structure and simplifies its language.

3. Engineering

Engineering was the second most discussed topic of Theme 1. Comments related to Safer Street Design, Segregation of Traffic, Cycling Infrastructure and Segregated Cycle Lanes, and Pedestrian Prioritisation topics. It was clear that there was strong support for more information around plans for safer engineering and active mode prioritisation in the City to be covered in the Final Plan.

4. Enforcement

Enforcement was the second most discussed topic under the Theme 2 and fourth overall. Respondents made comments on current enforcement and targeting of specific unlawful conduct. There was support for more enforcement of traffic regulations, unlawful behaviour by cyclists and enforcement of the City wide 20mph.

5. Traffic levels

Reducing traffic level was the topic most commented upon under Theme 1 and Theme 3. Respondents suggested that current efforts to reduce traffic levels weren't drastic enough. Some respondents advocated for a more ambitious approach to street closures and the segregation of traffic – asking for more "permeant closures". The sub-topic "increased congestion" also featured with several comments suggesting these measures might add to congestion. The Final Plan should provide more information on the measures to be taken by the City Corporation to proactively reduce traffic levels within the City.

6. Space allocation

Respondents were supportive of prioritising space for people walking and cycling, while discouraging the use of vehicles. Some felt that to meet Vision Zero the Final Plan must pedestrianize streets to reduce KSIs. Some comments referred to previous objections that the Draft Plan targets were not ambitious enough.

7. Behaviour change

Comments relating to behaviour were fifth most common. The sub-topic "personal responsibility" ranked highly, reflecting a desire for people to take the initiative and

be in control of their own safety. Linked to this, pedestrian behaviour was the target of several responses which commented on their attitudes and actions. The Final Plan should consider addressing these issues, for example under infrastructural change or enforcement. Several comments suggested there was support for more education and awareness campaigns for pedestrians to take more responsibility.

## Introduction

The success of the UK economy requires the City of London to remain efficient and competitive as it grows, ensuring the City remains a great place to live, work, learn and visit. It is imperative, therefore, that the City of London Corporation (City Corporation) Road Danger Reduction and Active Travel plan (Draft Plan) is based on the goal of eliminating death and injury on the City's streets.

The Draft Plan looks forward five years from 2018 – 2023 and seeks to achieve a genuine reduction in danger for all, to make our streets safer and improve the quality of life for everyone in the City of London.

It seeks to be consistent with the 'Vision Zero' approach taken by the Mayor of London, with road danger targeted at its source, working towards the elimination of the number of people killed or seriously injured (KSI) on London's roads. In addition to delivering the Healthy Streets Approach to enable more walking and cycling, helping to reduce levels of physical inactivity and associated health impacts.

The Vision Zero approach is based on five key principles:

- Ethics: human life and health have the highest priority.
- Safety: people make mistakes, and this should not result in death or serious injuries. Action should be taken to reduce opportunities for error and the extent of harm.
- Responsibility: those who design and manage road systems share responsibility with road users. Road Dander Reduction targets the vehicles bringing most danger, as they a most able to cause harm.
- Mechanisms for change: all those responsible for safety (including road users and stakeholders) should be ready to achieve safety, just as they would in the workplace.
- Active healthy travel - because death and illness from inactivity are a financially and socially costly impact of unsafe environments that discourage walking and cycling.

The long-term road danger reduction approach to achieving safer streets seeks to reduce danger at source. This calls for a recognition of the fact that the principal

source of danger on the road is motor vehicles and that the key to making streets safer is the reduction of the speed, volume and dominance of motor vehicles.

## Survey and consultation

This consultation survey sought the views of the public and organisations with an interest in commenting on the Draft Plan. The survey opened on 5 June and was closed on the 5 August 2018.

Respondents could fill in the survey online, in person at several on street engagement sessions and several drop-in sessions across the City, or by mail-in paper copy.

The survey was structured as follows:

- The first section provided an overview of the survey respondent demographic profile and travel behaviours;
- The second section visualised the support for the targets within the Draft Plan and its ambitions;
- The third section detailed respondents support for the “Ten steps in five years towards a safer City” and analysed the open response results of the survey’s questions.
- The final section covered respondent’s suggestions to incorporate extra steps not currently covered in the Draft Plan.

*Please note: The Active Travel and Healthy streets theme, survey question had an error in its logic and repeated Theme 3 question. For this report, only the respondents first answers were analysed.*

## Data protection

The City Corporation is a registered data controller in respect of processing personal data under the relevant data protection legislation. This includes the Data Protection Act 1998, Data protection Act 2018 and the General Data Protection Regulation (GDPR). Further relevant details are presented below.

Any personal data provided by respondents, for the purposes of the survey, has been done so in accordance with the requirements of the EUU.S. Privacy Shield. The personal data processed by the City, and by the processor, for the purposes of this Survey, has been done so on the legal basis of respondents’ consent.

Any respondent who took part in this survey has the right to request a copy of their data, ask us to make changes to ensure that their data is up to date, ask that the City deletes their information or object to the way we use their data.

To do this please write to Data Protection Officer, City of London, PO Box 270, Guildhall, London, EC2P 2EJ or email information.officer@cityoflondon.gov.uk.

## Section 1. Demographic profile and travel behaviour

In total, 511 people accessed the survey of which, 506 continued the survey to completion.

The survey respondent demographic profile and travel behaviour are presented in the two figures below. For Figure 1 and Figure 2 it is important to note that percentages do not add up to 100% as respondents could select multiple options for each related question.

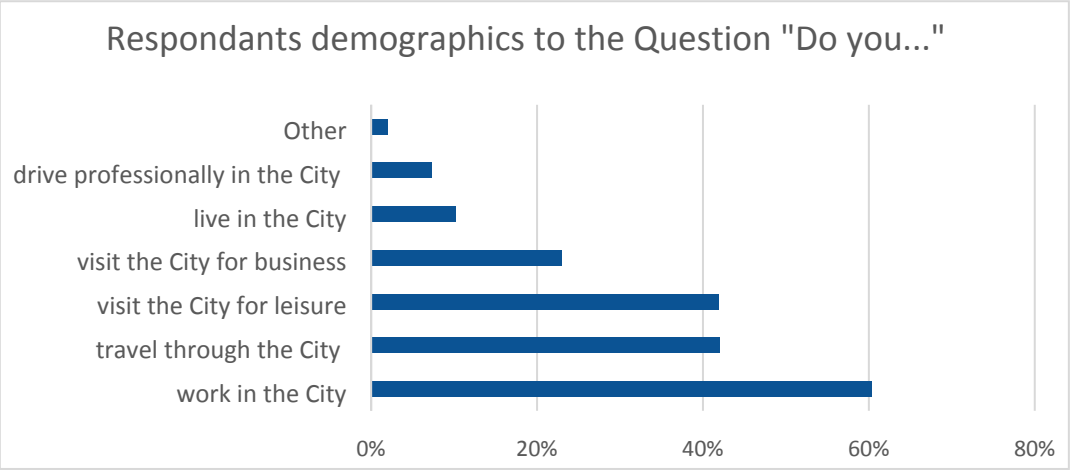



Figure 1: Multi-select responses to understand the respondent's demographics

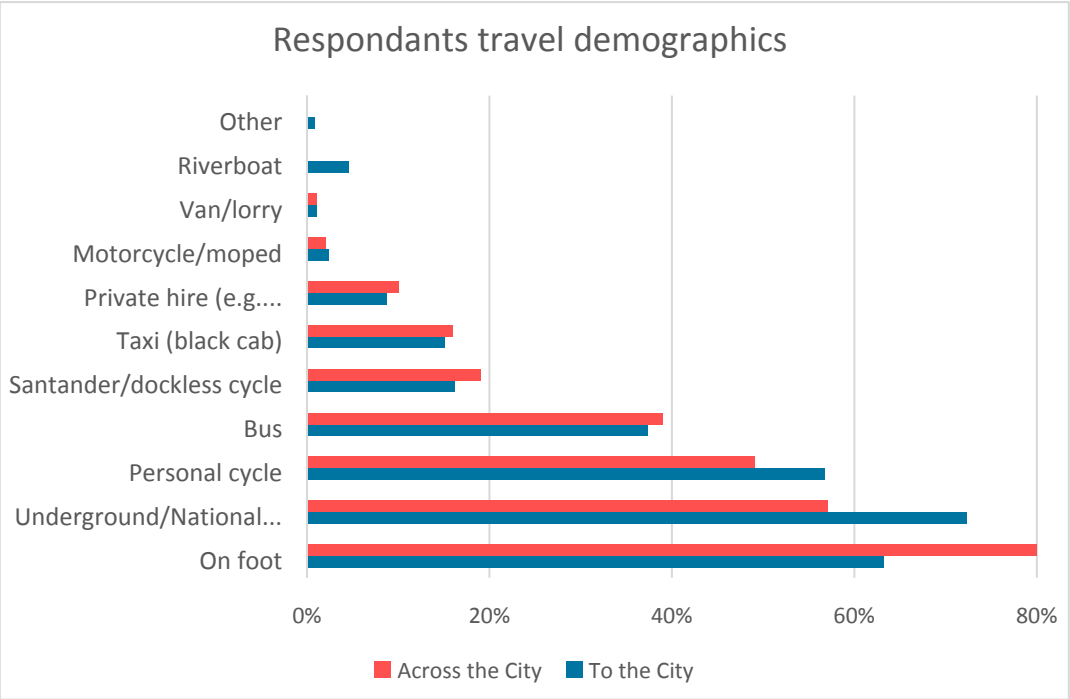



Figure 2: Comparison of multi-select responses to modes used to commute to/from and around the City.

The overall male/female breakdown was approximately 65/30 (with 5% choosing other options), which broadly aligns with the gender split of the City's working population (City of London Corporation, 2017).

12 organisations submitted a response to the consultation, with one organisation sending a separate comprehensive response.

## Section 2. Draft Plan targets and ambition

The Draft Plan identified that the City of London is adopting Vision Zero with the ambition that nobody is KSI on the City's Streets. To achieve this, it suggested adopting the Mayor of London's targets to reduce KSI by 70% against 2010-2014 levels by 2030 and eliminate all KSI by 2041.

Targets for this strategy

- By 2022 – no more than 35 KSI
- By 2023 – no more than 33 KSI.
- By 2030 – no more than 16 KSI.

The first question asked if respondents supported the trajectory of these targets.

There were 77.6% respondents who agreed with the trajectory of the targets and 22.4% who did not agree with the trajectory of the targets set out in the Draft Plan.

Of the 22.4% respondents that did not agree with these targets, over 70% of them felt the targets were not ambitious enough, while 29.7% felt they were too ambitious

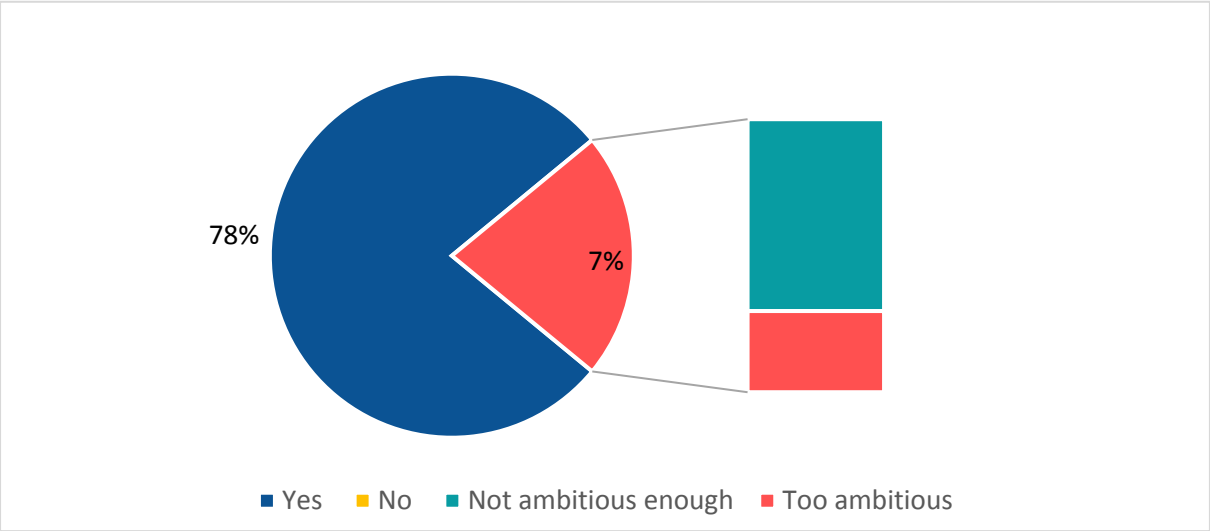



Figure 3: Support for the Trajectory of the Draft Plans targets

## Section 3. Ten steps in five years towards a safer City

The Draft Plan identified a 'ten steps in five years' plan, which summarised current, and programmed projects and introduced a programme of new activities to be developed and implemented over the five-year lifespan of the Draft Plan. Many of these steps aim to ensure the safety and comfort of our most vulnerable road users is a priority, while making active travel modes both safer and more appealing.

### Theme 1: Engagement & Behaviour Change

This theme focused on working in partnership to develop a series of campaigns, programmes and events to influence the attitudes of road users. *(Referring to page 32 - 40 in the Draft Plan. Step one - Behaviour change and attitudes to travel; Step two - Causational factors programme; Step three - Stakeholder engagement and the Active City Network; Step four - Road Danger Reduction Partnership.)*

### Theme 2: Road Danger Reduction and Vision Zero

This theme focused on working in partnership to address the root cause of Killed or Serious Injuries, focusing on higher risk vehicles, and target criminality and offending on our streets. *(Referring to page 41 - 47 in the Draft Plan. Step five. Targeted enforcement; Step six. Safer freight operations; Step seven. Safer riders; Step eight. Safer drivers).*

## Theme 3: Active Travel and Healthy Streets

This theme focused researching opportunities for timed closures, street closures to certain classes of traffic, and tactical urbanism. (*Referring to page 48 - 50 in the Draft Plan. Step 9. Temporary timed street closures at casualty hot-spots; Step 10. Tactical urbanism active travel priority zones*).

These ten steps, integrated with the three high level themes, demonstrated how the Draft Plan will meet the challenges and work towards Vision Zero over the strategy period 2018 – 2023. The survey asked respondents to reflect on each of the three themes and asked if they supported these steps, with the following five options:

A. Yes, I support these steps
B. I generally support these steps, but would like to see changes
C. No, I could not support these steps
D. No, I do not support these steps but could with changes
E. I do not have an opinion on these steps

All the themes received good support for these steps, with only 4.5%, 2.8% and 7.5% of respondents indicating they could not the support these steps, respectively for each theme shown in Figure 4.

For answers B, C, and D respondents were asked to expand on their answers. The question was optional and left ‘open’ for respondents to fill in themselves. A significant variety of responses were received.

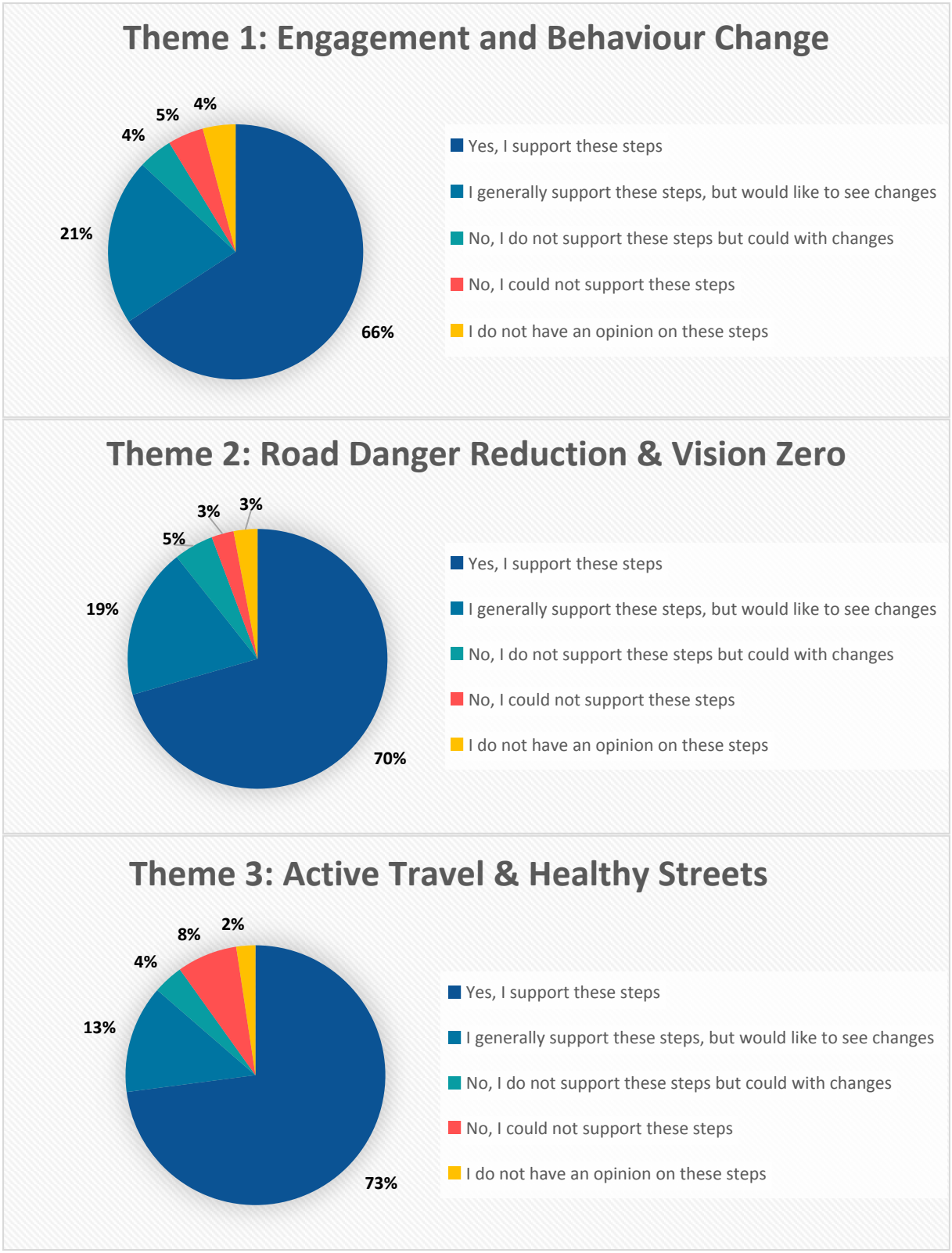



Figure 4: Level of support for the ten steps, outlines in the three high level themes

Open ended responses from questions B, C, and D were reviewed and analysed by categorising the subject of each comment into ‘subtopics’.

Some respondents provided more than one change/proposal and/or expressed a concern or support for a specific subject, location or scheme. Only the first three changes or issues a respondent mentioned were reviewed and categorised into sub-topics to prevent those respondents who provided significantly longer responses from skewing analysis results. As such, there are more changes/proposals than the number of respondents who answered the question. Other comments concerns and support that did not directly answer the question were also reviewed and noted when relevant.

Response text analysis began by categorising each statement into a topic and up to three more detailed sub-topics. The sub-topics were created by taking a sample of approximately 400 responses and identifying the most common changes that were proposed. Additional sub-topics were then created where necessary as analysis continued. Finally, a full review at the end of the categorisation was undertaken to ensure all comments fitted in to the most appropriate sub-topic.

The sentiment of the sub-topic was also noted (i.e. whether the respondent was in support of or against the sub-topic). Once all comments were categorised, sub-topics were then grouped into similar ‘Topics’.

A Topic consisted of a higher-level categorisation of related sub-topics. A sample of comments and their associated sub-topic and theme are shown in Figure 5

| Comment: "Better cycling infrastructure" | |
|---|---|
| Topic: Engineering | Sub-topic: Cycling Infrastructure |

| Comment: "I would like cars out of the City, completely" | |
|---|---|
| Topic: Traffic levels | Sub-topic: Reduce motor traffic |

Figure 5: A Sample of comments and associated Topic and Sub-Topic

## Topics and Subtopics

The topics of the proposals were ranked in order of the most to least mentioned. It is important to note that percentages may not add up to 100% as responses from each respondent could contain up to three themes.

14 distinct topics and 52 subtopics were identified. The topics that ranked the highest included: Traffic levels; Strategy refinement, Ineffective Action; Enforcement;

Behaviour; Space allocation and Engineering (**Error! Reference source not found.**).

| Topics | Q1 | Q2 | Q3 | Total |
|---|---|---|---|---|
| Traffic Levels | 17% | 14% | 28% | 20% |
| Ineffective action | 10% | 8% | 27% | 15% |
| Strategy Refinement | 15% | 20% | 10% | 15% |
| Enforcement | 11% | 19% | 1% | 10% |
| Behaviour | 13% | 16% | 2% | 10% |
| Space allocation | 5% | 6% | 17% | 9% |
| Engineering | 16% | 7% | 2% | 9% |
| Education | 4% | 4% | 1% | 3% |
| Compliance | 4% | 3% | 1% | 2% |
| Congestion | 1% | 1% | 5% | 2% |
| Misc | 3% | 1% | 2% | 2% |
| Accessibility | 1% | 1% | 1% | 1% |
| Pollution | 1% | 1% | 2% | 1% |
| Partnerships | 1% | 0% | 1% | 0% |

**Theme 1: Engagement & Behaviour Change Key Findings**

There was very good support for this step with 86.9% of respondents supporting or generally supporting these steps (Figure 1Figure 4). Those who generally supported the steps but wanted to see changes and those that felt they could not support the steps but would with changes were asked to comment.

For the respondents that wanted to see changes the key findings were:

- Traffic levels was the most discussed topic in this theme making up 20% of responses. There was strong support for reducing motor traffic and having active mode prioritisation, “street closures” (including permanent street closures) and “motor vehicle bans”. There was also strong support for more information around plans for reducing motor traffic to be covered in the Final Plan.

- Engineering was the second most discussed topic, with the following sub topics: “safer street design”, “cycling infrastructure”, “segregation of traffic”, “segregated cycle lanes”, and “pedestrian prioritisation”. There was also strong support for more information around plans for safer engineering and active mode prioritisation in the City to be covered in the Final Plan.

- Strategy Refinement was the third most discussed topic. The subtopics which dominated within this topic were “order of priority” and “targets not ambitious enough”. Respondents felt that this theme’s steps could not have the impact intended without the support of Engineering and Enforcement.

Only 5% of respondents saying they could not support these steps.

- Those who could not support these steps felt that the steps under this theme were ineffective. The subtopic “belief” ranked highly indicating that respondents did not believe behaviour change would work. Other sub topics included “targets were too ambitious”, or “targets were not ambitious enough”, “increased congestion” and that people need to take more “personal responsibility”.

**Theme 2: Road Danger Reduction and Vision Zero Key Findings**

There was excellent support for this theme with 89.4% of respondents supporting or generally supporting these steps (Figure 1Figure 4). Those who generally supported the steps but wanted to see changes and those that felt they could not support the steps but would with changes were asked to comment.

For the respondents that wanted to see changes the key findings were:

- Strategy refinement dominated in this category with 20% of respondents leaving a comment, scoring the highest of any other Theme. The subtopics which dominated were “order of priority”, “reporting” and “bias”. Respondents felt that this theme’s steps should be the priority of all three themes and that it should feature first in the Draft Plan. Respondent’s wanted to see more information regarding reporting and supported reducing bias towards pedestrians.

- The Enforcement topic was the second most discussed topic with 19% of respondents leaving comments that fit into this topic. There was support for more enforcement. Subtopics which were most frequently discussed included support for: “more road enforcement”, “cycling enforcement”, “enforcement to support behaviour change” and “cycle cops.”

- The third highest ranking topic was behaviour with 16%. The discussions in this topic were around people taking personal responsibility for their actions, campaigning and education for safer pedestrians, safer riders and drivers.

Only 2.5% of people saying they could not support these steps.

- Those who could not support these steps felt that actions were ineffective because: targets were too ambitious, or targets were not ambitious enough, lead to more congestion and that the Draft Plan was biased towards people who do not drive.

**Theme 3: Active Travel and Healthy Streets Key Findings**

There was good support for this theme with 86.3% of respondents supporting or generally supporting these steps (Figure 4). Those who generally supported the steps but wanted to see changes and those that felt they could not support the steps but would with changes were asked to comment.

For the respondents that wanted to see changes the key findings were:

- Traffic Levels received a lot of attention with 28% of respondents leaving a comment. There was broad support for general reductions in traffic levels within the City. Popular subtopics include “reducing traffic”, “street closures” and “active modes prioritisation”.

- Ineffective action was also cited as a concern, with 27% of responses mentioning the issue. Respondents expressed doubts that the Draft Plan would be effective, fearing that the proposals would harm business and exacerbate congestion. Other subtopics mentioned were “bias” and “street closures”.

- There was support for changes in space allocation. Most responses addressed the relationship between pedestrians, cyclists and motor vehicles. Subtopics mentioned included “segregation of traffic”, “cycling infrastructure”, pedestrian and “active modes prioritisation”.

Only 7.5% of people saying they could not support these steps.

- Those who could not support these steps had reservations because: “targets were too ambitious”, or “targets were not ambitious enough”, that the steps would lead to more congestion, harm business and was bias towards people who do not drive.

## Section 4: Steps not covered in the Draft Plan

The survey asked respondents *“Do you think there are any steps that are not covered in the Draft Plan?”*.

Results showed that over 62% of respondents felt that there we no steps missing. The remaining respondents that felt there were some steps that were not covered were asked to explain. The question was optional and left ‘open’ for respondents to fill in themselves. 172 participants left a response. These comments were analysed using the same topic and subtopic methodology as in Section 3.

52 topics were identified from the participants comments. The most mentioned topics were: Engineering, Reducing Motor Traffic, Segregation of Traffic, Safer Cycling Infrastructure, Permeant Street Closures and Active Travel Mode Prioritisation.

Further analysis of the comments identified the comments under three categories - “Steps not covered in the plan”, “Steps in the plan – Do more” and “Comments”. These were split approximately 50% / 30% / 20% respectively.

The key findings were:

- Respondents felt safer design and engineering of streets were not covered appropriately in the Draft Plan, this included safer cycling infrastructure and segregation of traffic.

- “Active travel modes priority” and “reduce motor traffic” were topics that dominated discussion. Sub topics included safer cycling infrastructure, pedestrian prioritisation and priority of pedestrian signal timings. Many respondents felt this should be discussed in more detail in the Final Plan.

- Respondents felt the Draft Plan did not explain plans to reduce and manage motor traffic in enough detail – permeant street closures, vehicle restrictions/ bans and timed street closures.

- More pedestrian education and engagement was highlighted as lacking in the Draft Plan, with several comments calling for more campaigns and education for people walking.

- There was support for stronger and more frequent road enforcement, including cycling enforcement, traffic management and fines.

- Suggestions included exploring the use of Intelligent Speed Assistance, automated technology, lobbying to increase the congestion charge, lobbying to reduce TAXI & PHV and lobbing to licence people cycling.

## Conclusion and recommendations

The Draft Plan’s ambition to meet Vision Zero was well received with over 77% of the respondents agreed with the trajectory of the targets set out in the plan. Of the respondents that did not agree with the targets, 70% of them felt the Draft Plan was not ambitious enough.

The ten steps, integrated with the three high level themes, demonstrated how the Draft Plan will meet challenges and work towards Vision Zero over the strategy period 2018 – 2023. All the themes received good support, with Only 4.5%, 2.8% and 7.5% of respondents of respondents saying they could not the support the steps, respectively for each theme.

Response text analysis, categorising the open-ended statements around the theme into detailed sub-topics identified several key findings and recommendations:

1. Plan does not go far enough

The results above demonstrate that of the 22.4% respondents that did not agree with the targets stated. Over 70% of them felt the targets were not ambitious enough. This was reflected in their comments that suggested more could be done to reduce motor traffic and be more ambitious with road closures.

2. Draft Plan structure refinement

Numerous comments related to the order of priority between the three themes, language and structure of the Draft Plan. Many felt that Theme 2 should have featured first in the plan. The Draft Plan did not intend to give indication that one step should be prioritised over another. However, from the comments it seems that issues such as engineering and enforcement sections need to be enhanced, and therefore it is proposed the plans themes will be reversed, so that the behaviour change and engagement sections appears later in the plan.

3. Engineering

Engineering was the second most discussed topic of the Theme 1. Comments involved the following sub topics: Safer Street Design, Segregation of Traffic, Cycling Infrastructure and Segregated Cycle Lanes, and Pedestrian Prioritisation. It was clear that there was strong support for more information around plans for safer engineering and active mode prioritisation in the City to be covered in the Final Plan.

4. Enforcement

Several respondents raised concerns regarding the issue of enforcement. It was the second most discussed topic under the Theme 2 and fourth overall. Comments mentioned both general enforcement of traffic regulations and the targeting of specific unlawful conduct. Dangerous behaviour by cyclists received particular consideration, for example claiming that enforcement should inhibit the jumping of red lights or use of excessive speeds. Enforcement of the City wide 20mph limit was also raised as a concern, with members of the public citing flagrant abuses of the limit and demanded a better enforcement response. While there was clear support for the proposals, the Final Plan should be careful to address how the City Corporation will work with the City of London Police to educate, engage and enforce.

5. Traffic Levels

Traffic level was the topic commented upon most under both Theme 1 and Theme 3. Many comments fall under the sub-topic “reduce traffic levels,” calling for a general reduction across the City. Respondents suggested that current efforts to reduce traffic levels weren’t drastic enough to reduce the number of KSIs. Many advocated a more ambitious approach to road closures and the segregation of traffic with specific mentions made to the dangers posed to cyclists. Popular among responses

was the idea of “Street closures,” with particular emphasis on these being made permanent, and bans of motor vehicles or “segregation of traffic”. The sub-topic “increased congestion” also featured with several comments suggesting that traffic is currently stifled to ‘standards that are unacceptable’. These respondents expressed fears that further efforts to slow traffic would exacerbate congestion. The Final Plan should provide more information on the measures to be taken by the City Corporation to proactively reduce traffic levels within the City.

6. Space Allocation

There were several comments relating to space allocation, with it constituting the third most mentioned topic in the Theme 3. Commenters were particularly interested in altering space allocated to prioritise pedestrians and cyclists. A specific measure recurrently mentioned was the widening of pavements to allow for more space and to incentivise walking while discouraging the use of vehicles. Others went beyond this and noted that the way to prevent KSIs is to further pedestrianize streets. The comments often pertained to the previous objections that the plan didn’t go far enough, with some respondents advocating a more ambitious approach to road closures beyond the peak times suggested in Step 9. There remains broad support for the proposals, but the Final Plan could diffuse the above objections with increased discussion of infrastructural change.

7. Behaviour

Comments relating to behaviour were fifth most common. The sub-topic “personal responsibility” ranked highly, reflecting a desire for people to take the initiative and be in control of their own safety. Linked to this, pedestrian behaviour was the target of several responses which commented on their attitudes and actions.

Several comments suggested there was some bias towards pedestrians within the draft. Approximately 5% of respondents showed support for pedestrians to take more responsibility for their own safety. There was support for more education and awareness campaigns to combat this. The Final Plan needs to clarify the road danger reduction aims with regards to people walking.

Respondents cited a tendency for pedestrians to be distracted by their mobile phones when crossing streets or to just be generally unaware of their surroundings. Almost as popular however were calls for increased pedestrian prioritisation to prevent KSIs.

The Final Plan should consider addressing all the issues highlighted in this report.

## References

*City of London Corporation*. (2017). Retrieved from City of Lobndon Corporation: https://www.cityoflondon.gov.uk/business/economic-research-and-information/Pages/economic-statistics.aspx

# Road Injury Statistics for the City of London (2013-2017)

ROAD DANGER REDUCTION

# General Overview

This report has been completed using reissued accident casualty data from TfL (Transport for London). The data used spans from 2005 to 2017. Visualisations examine both the entirety of the dataset as well as focusing exclusively on the last 5 years (2013 to 2017).

## Data Overview

Since 2005 there have been 4,489 collisions, resulting in 4,942 casualties. Between 2013 and 2017 there have been 1,723 collisions resulting in 1,888 casualties.

## Yearly Trends

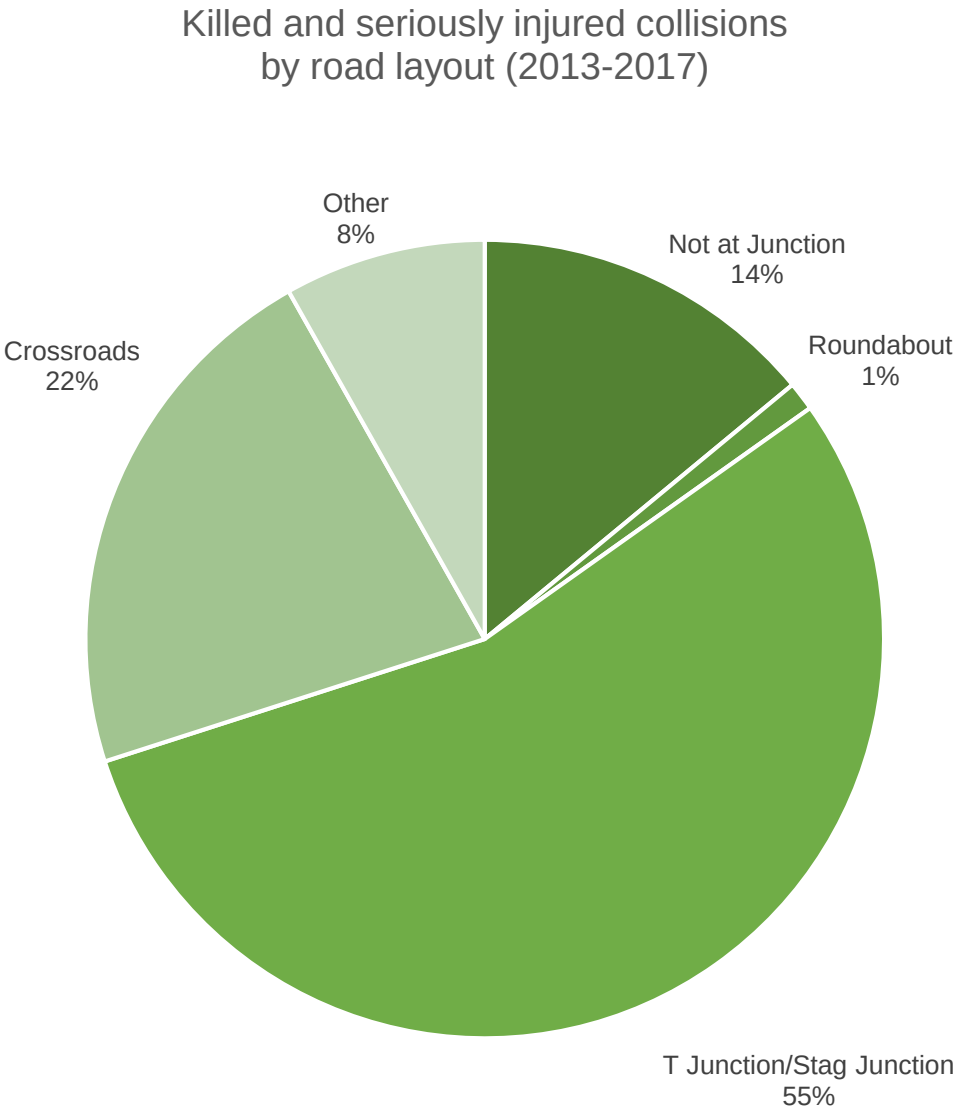
- In the past five years the number of deaths and serious injuries has decreased from 60 in 2013 to 54 in 2017, with the lowest count over that span occurring in 2015 at 43.
- Slight injuries have risen to 282 in comparison to the record low in 2013 of 256. The total for 2017 was a marked decrease compared to an all-time high of 324 in 2016.

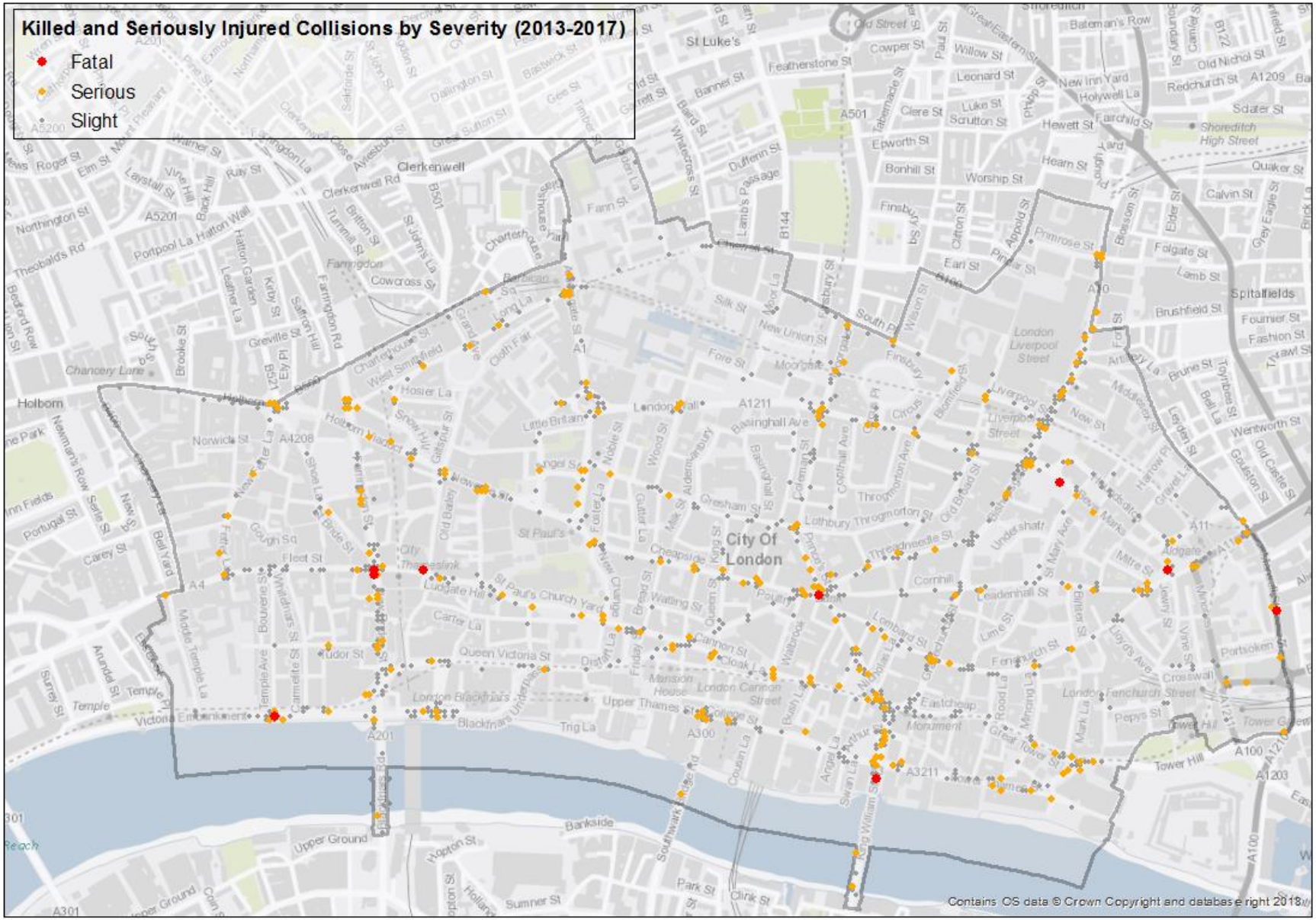
## Vulnerable Road Users

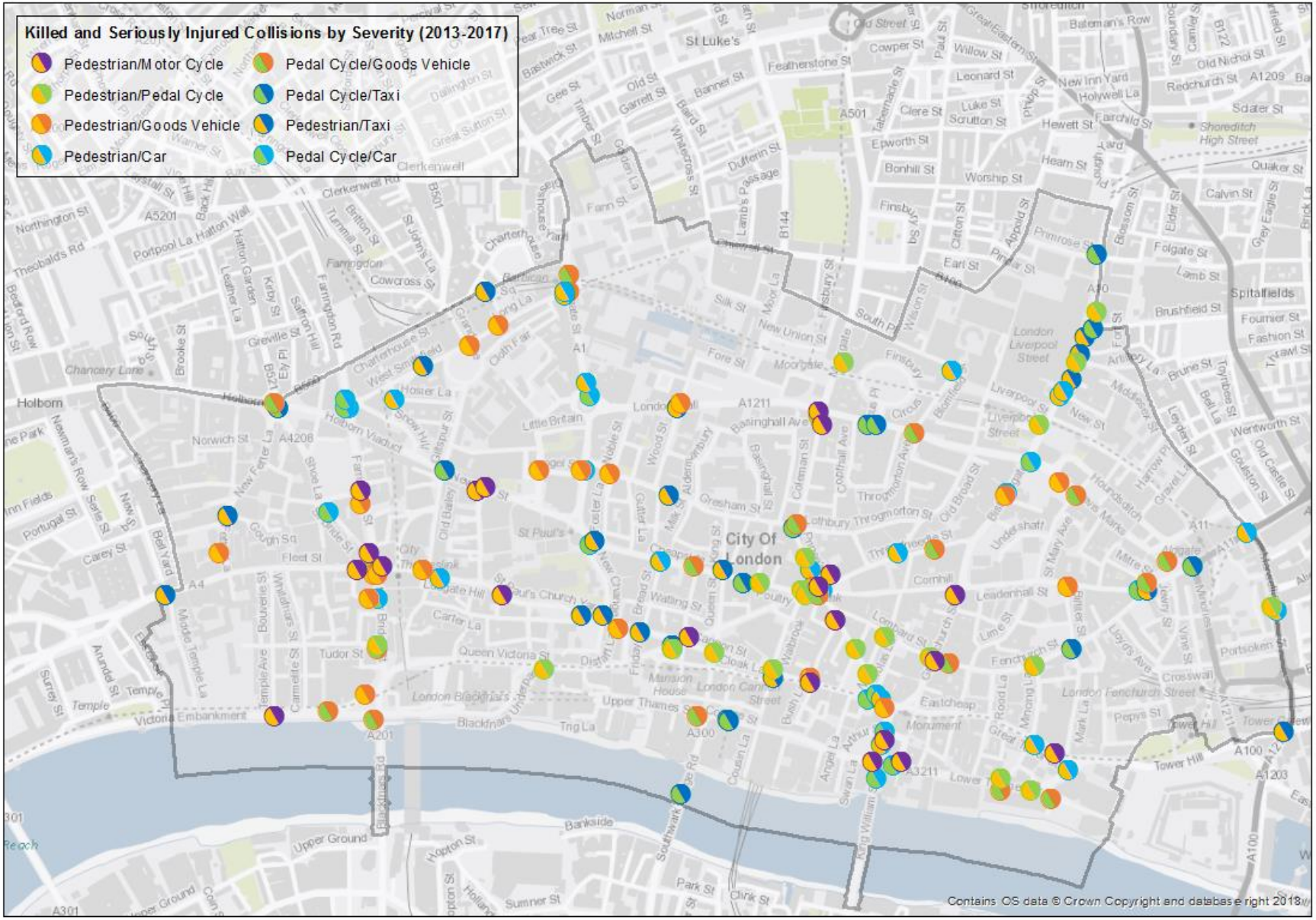
- Pedestrian deaths and serious injuries are down from an all-time high of 28 in 2016 to 26 in 2017, though the data indicates a rising trend over the last five years from 22 in 2013.
- Goods vehicles represent the greatest cause of pedestrian death and serious injury, with car collisions being the second most.
- In addition to pedestrians, goods vehicles are also the vehicle responsible for the highest incidence of death and serious injury of pedal cyclists and motor cyclists.

# General Overview

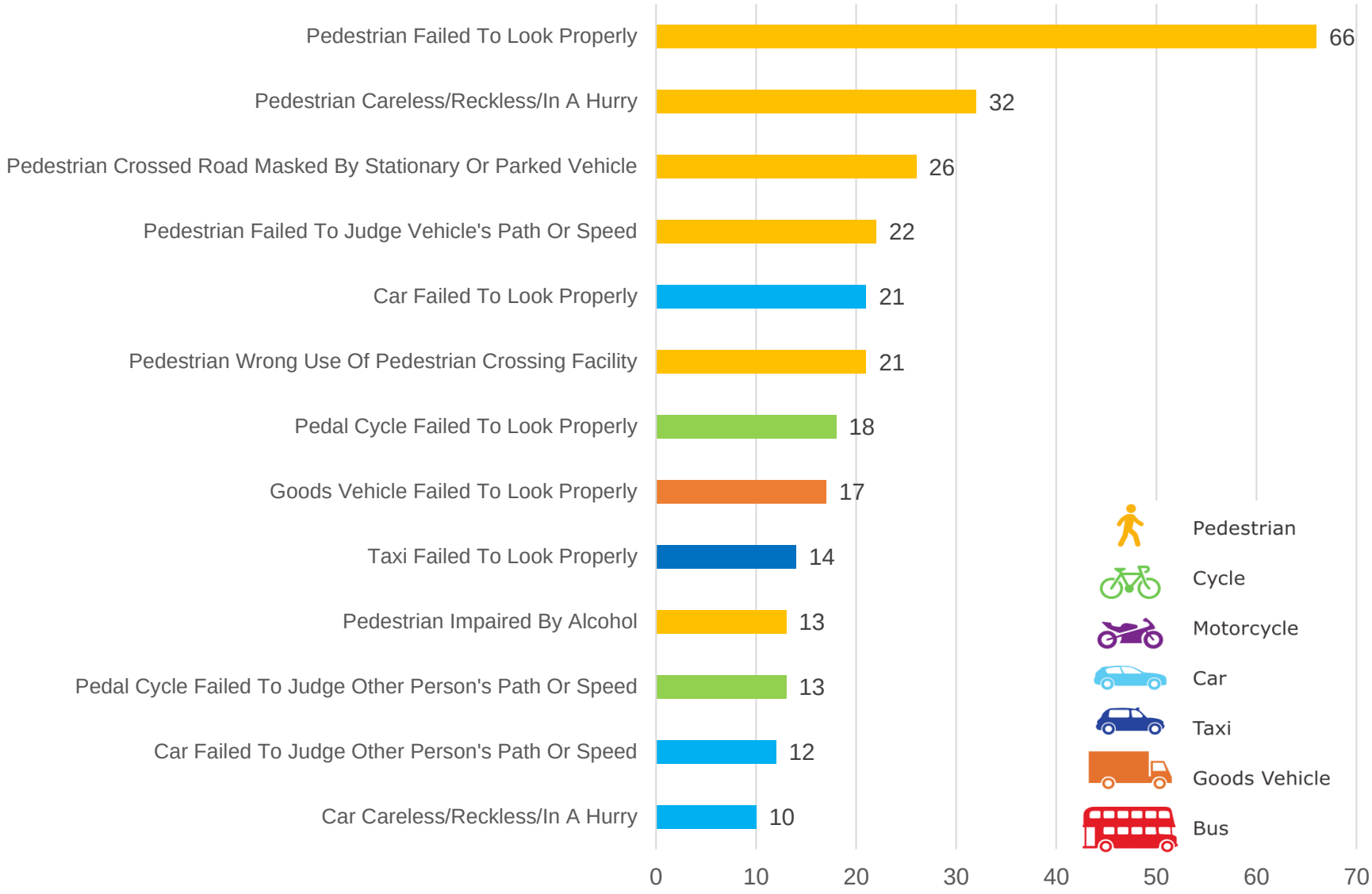



Killed and Seriously Injured Collisions by Severity (2013-2017)
Fatal
Serious
Slight
City Of London
Clerkenwell
Holborn
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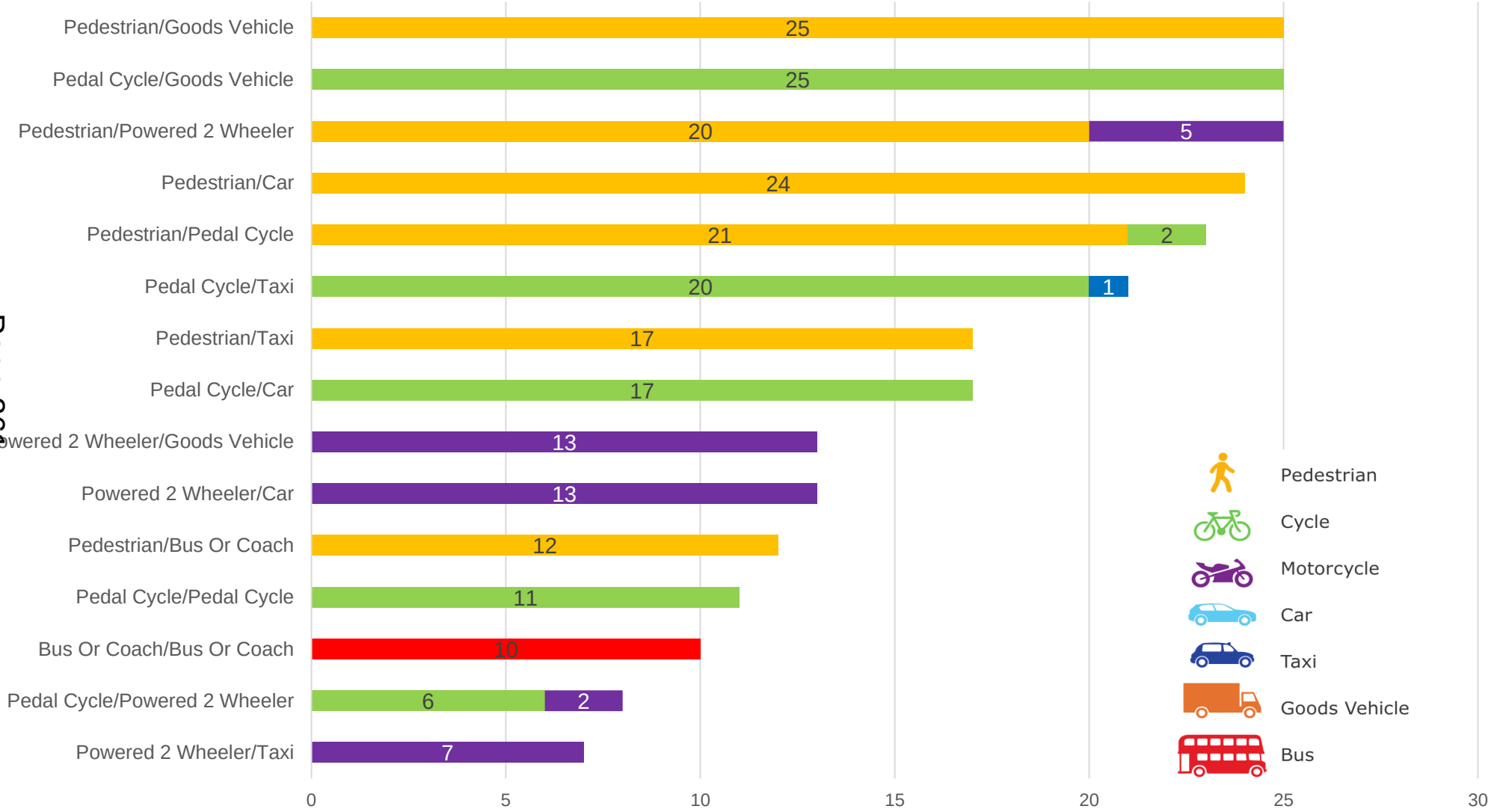

Killed and Seriously Injured Collisions by Severity (2013-2017)
Pedestrian/Motor Cycle
Pedestrian/Pedal Cycle
Pedestrian/Goods Vehicle
Pedestrian/Car
Pedal Cycle/Goods Vehicle
Pedal Cycle/Taxi
Pedestrian/Taxi
Pedal Cycle/Car
City Of London
Holborn
Clerkenwell
St Luke's
Shoreditch
Spitalfields
Bankside
Contains OS data © Crown Copyright and database right 2018

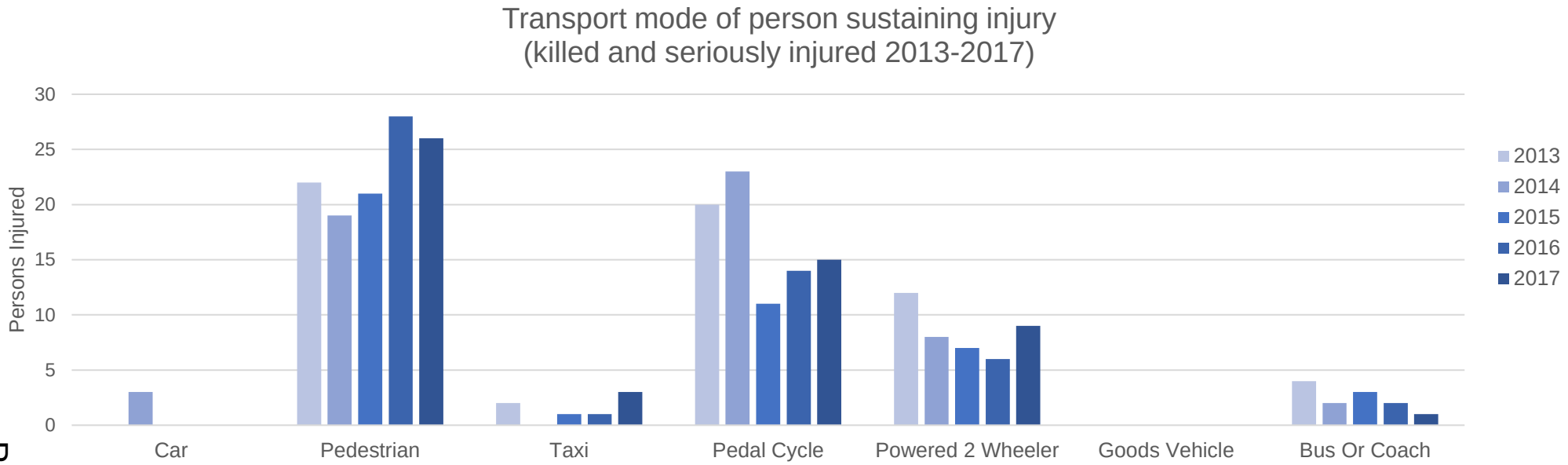
## Most frequent contributing factors in all collisions (2013-2017)

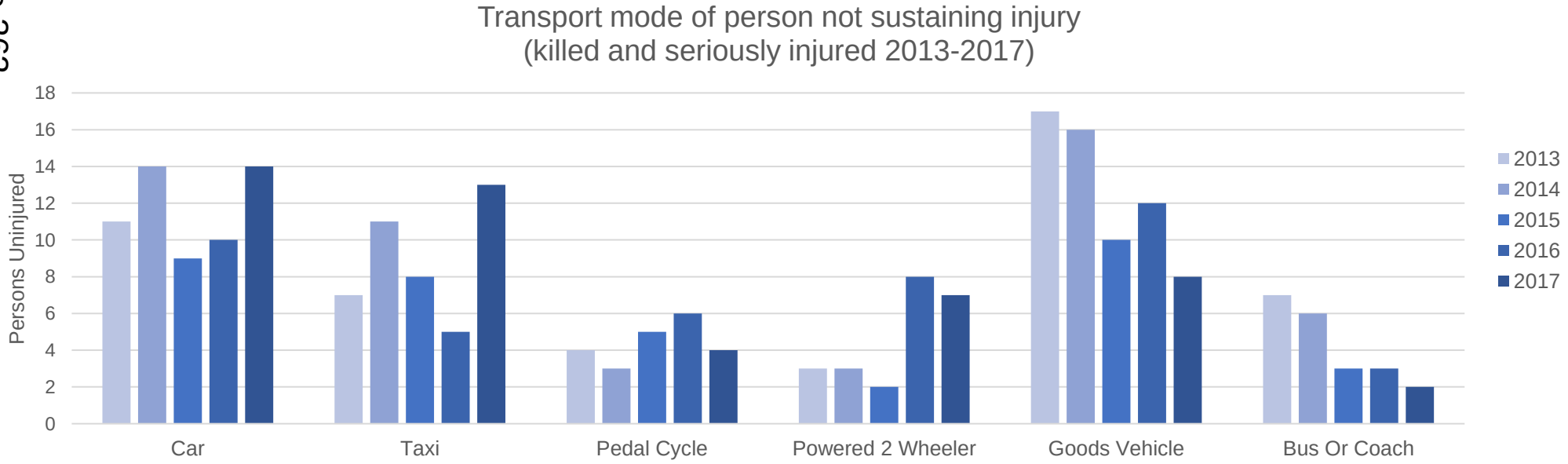


## Killed and serious injury division of most frequent conflicting pairs (2013-2017)

Coloured bars indicate the mode of transport of person injured in a collison

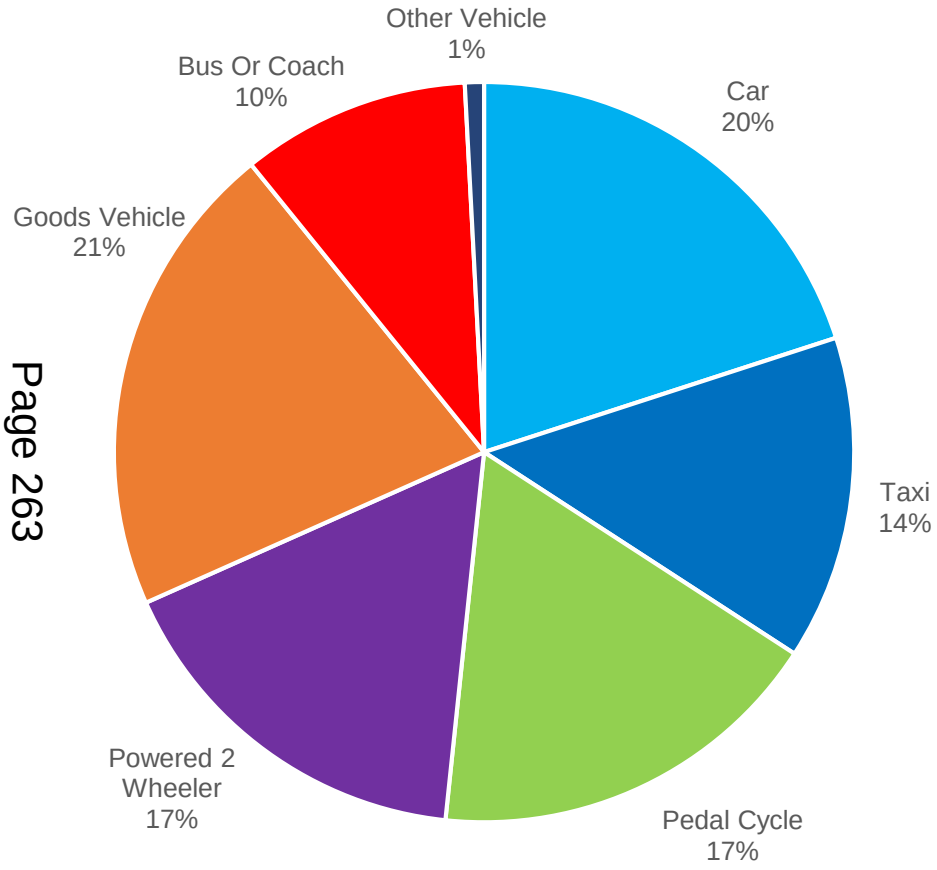



Transport mode of person sustaining injury
(killed and seriously injured 2013-2017)
Persons Injured
30
25
20
15
10
5
0
Car
Pedestrian
Taxi
Pedal Cycle
Powered 2 Wheeler
Goods Vehicle
Bus Or Coach
2013
2014
2015
2016
2017

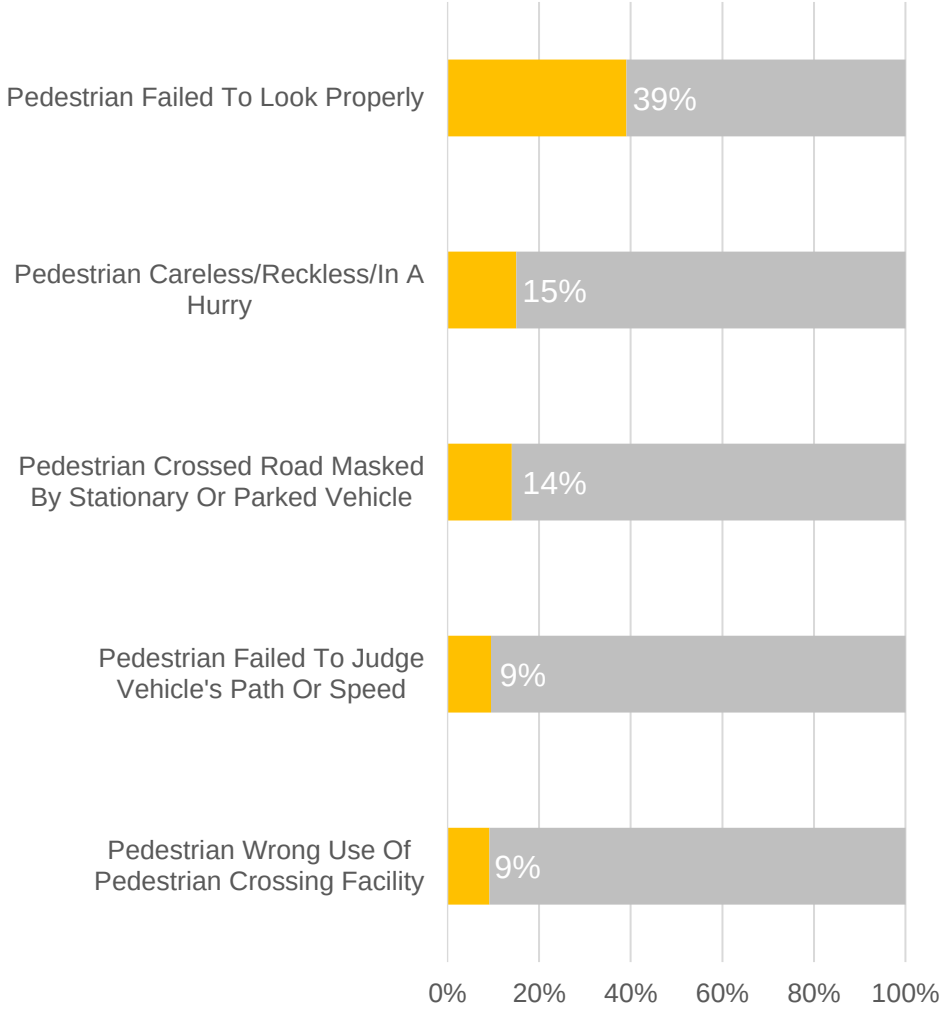

Transport mode of person not sustaining injury
(killed and seriously injured 2013-2017)
Persons Uninjured
18
16
14
12
10
8
6
4
2
0
Car
Taxi
Pedal Cycle
Powered 2 Wheeler
Goods Vehicle
Bus Or Coach
2013
2014
2015
2016
2017

# Pedestrian Collisions

Transport modes involved in collisons resulting in death or serious injury to pedestrians (2013-2017)

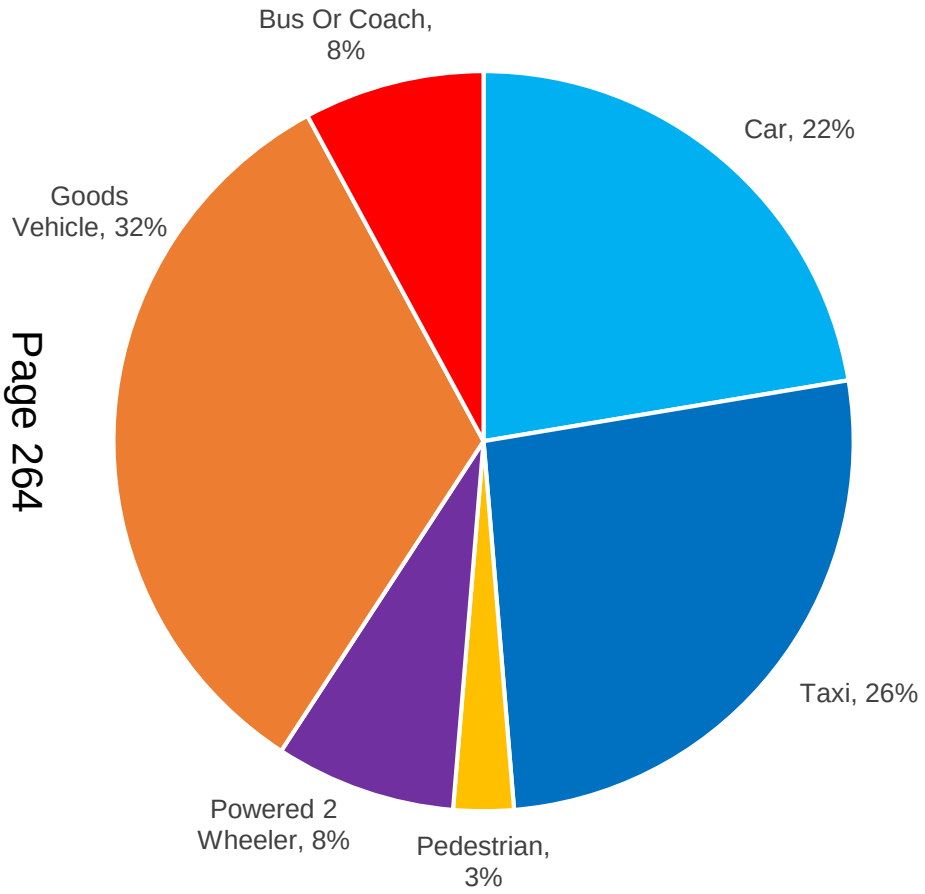



Most frequent contributing factors in all collisions with pedestrians (2013-2017)

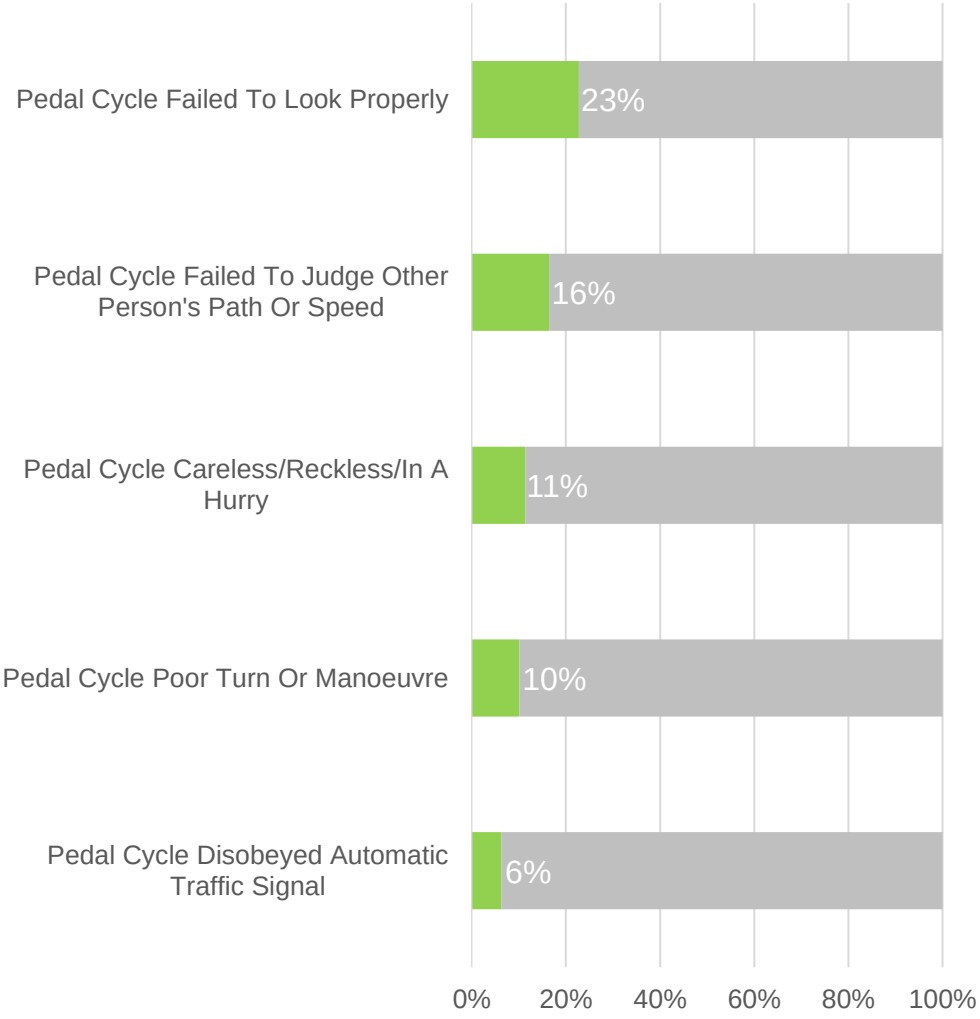


# Pedal Cycle Collisions

Transport modes involved in collisons resulting in death or serious injury to pedal cyclists (2013-2017)

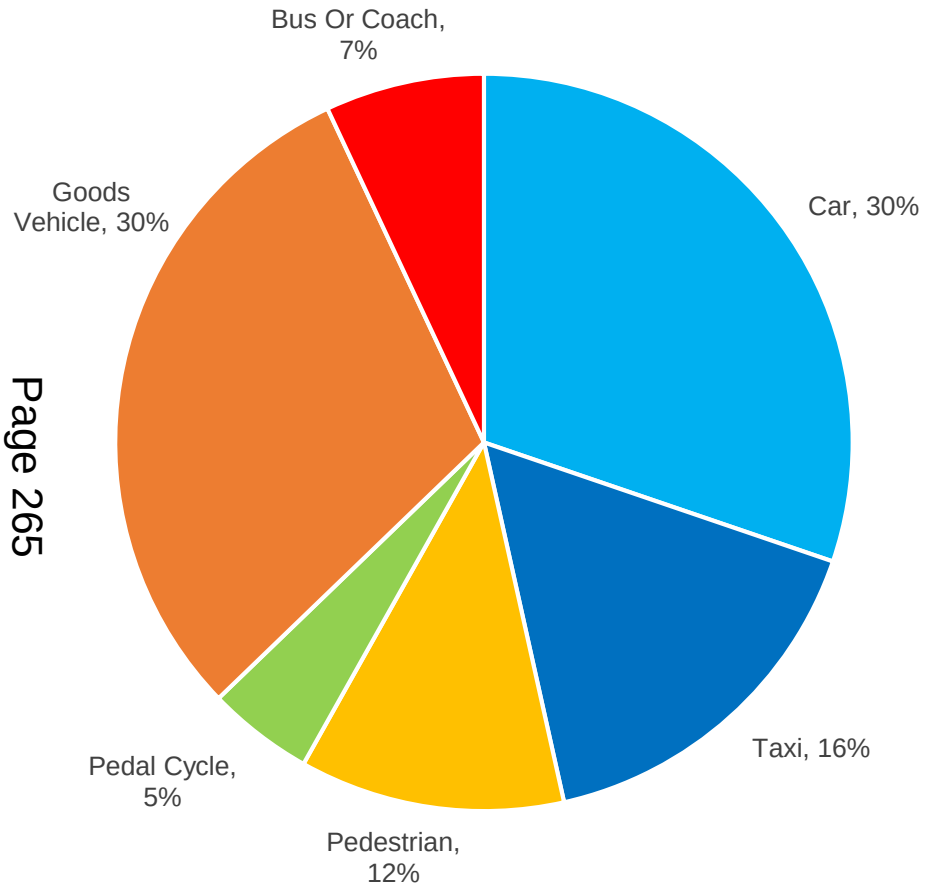



Most frequent contributing factors in all collisions with pedal cyclists (2013-2017)

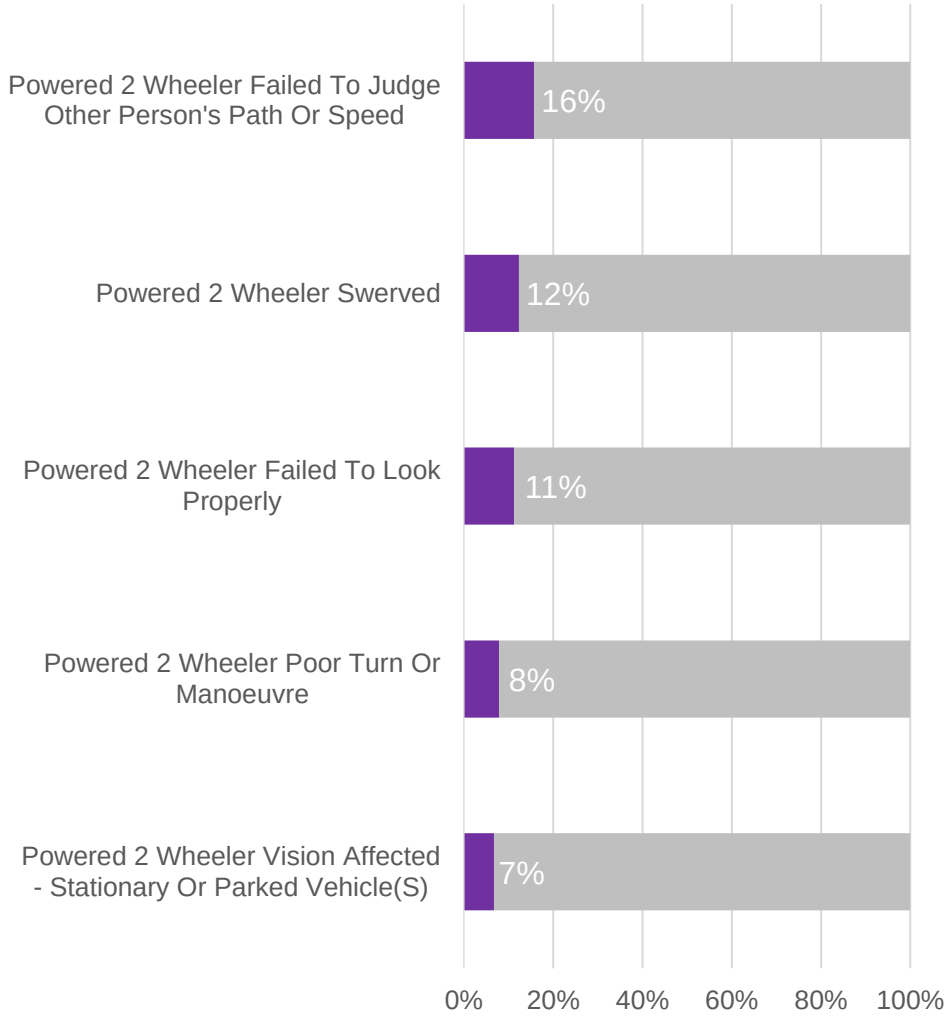


# Powered 2 Wheeler Collisions

Modes involved in all collisions with powered 2 wheelers (2013-2017)




Most frequent contributing factors in all collisions with powered 2 wheelers (2013-2017)



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| Committee(s) | Dated: |
|---|---|
| Planning and Transportation – for decision | 20 November 2018 |
| **Subject:**<br>Draft LIP Delivery Plan 2019/20 to 2021/22 | **Public** |
| **Report of:**<br>Carolyn Dwyer, Director of the Built Environment | **For Decision** |


## Summary

This report covers the provision of Transport for London funding to the City of London Corporation.

It seeks approval for the projects that will be included in the City Corporation's Local Implementation Plan (LIP) Delivery Plan for 2019/20 to 2021/22. This includes the sections of the draft Transport Strategy Delivery Plan that are required for the LIP and is attached at Appendix 1. Subject to approval this will then be submitted to TfL for review and published alongside the draft Transport Strategy.

The first year of the LIP Delivery Plan is required to be submitted as the 2019/20 Annual Spending Submission which allocates 'Corridors, Neighbourhoods & Supporting Measures' and 'Local Transport Initiatives' grants totalling £980,000. This committee is considering the Annual Spending Submission under a separate report.


## Recommendation

- Approve the Draft LIP Delivery Plan 2019/20 – 2021/22 for consultation with TfL, statutory consultees and the public.

## Main Report

### Background

1. Under Section 159 of the Greater London Authority Act 1999, TfL is empowered to provide grants to London boroughs and the City for the provision of safe, efficient and economically viable transportation facilities and (or) services to, from or within Greater London.

2. The City of London Transport Strategy and relevant sections of the supporting three-year Delivery Plan will act as the City Corporation's Local Implementation Plan (LIP). The LIP is a statutory document that sets out how the City Corporation will support the delivery of the Mayors Transport Strategy (MTS). There is good

alignment between the Transport Strategy and the MTS, which seeks to improve London's streets to make them healthy, inclusive and safe, provide a good public transport experience and support the delivery of homes and jobs.

3. The sections of the Delivery Plan that are required for the LIP are attached here at Appendix 1. Subject to approval they will then be submitted to TfL for review and published alongside the draft Transport Strategy as part of the consultation.

4. Every year, TfL provides grants to the City under the *Corridors, Neighbourhoods and Supporting Measures*, *Local Transport Initiatives* and *Principal Road Maintenance* programme. This is the subject of a separate report to this committee.

**Draft Transport Strategy Delivery Plan – Local Implementation Plan Submission**

5. The draft LIP Delivery Plan is attached as Appendix 1. This follows a template provided by TfL and details the projects that will be funded in full or in part by TfL. The LIP Delivery Plan will be incorporated into the Transport Strategy Delivery Plan which will provide details of all Transport Strategy related projects to be delivered between 2019/20 and 2021/22. The final Delivery Plan will be submitted to Members in early 2019 for approval, following the completion of the Department of the Built Environment project review. It will then be published alongside the final Transport Strategy and updated on an annual basis. A report setting out the principles of the project review is being considered by this committee on 20 November 2018.

6. TfL requires submission of the Draft LIP in November 2018. The TfL timetable for submission of the final LIP is February 2019. We have agreed with TfL that we can submit once the Transport Strategy is adopted, which is timetabled for April 2019.

**Liveable Neighbourhoods**

7. It is proposed that a Liveable Neighbourhood bid of £3.25 million be submitted to TfL to seek a contribution towards the costs of delivering transport and public realm improvements in the City Cluster. This bid will cover financial years up to 2022/23 and therefore go beyond the next LIP 3yr plan period. The City Cluster scheme is part of the DBE project review, and will therefore be subject to further consideration later this financial year by Resource Allocation Sub-Committee. Indicative amounts for the City Cluster scheme are in the region of £20m, including CIL, S106, S278.

**Corporate & Strategic Implications**

8. The use of TfL grants will support the delivery of the City of London Corporate Plan, and in particular the 'People are safe and feel safe' and 'We are digitally and physically well connected and responsive' priorities. The projects are also aligned with the draft Transport Strategy and the Department of Built Environment Business Plan.

## Conclusion

9. The City Corporation is required to submit the Local Implementation Plan 3-year for 2019/20 to 2021/22. The sections of the Transport Strategy Delivery Plan that are required for the LIP are attached at Appendix 1. Subject to approval they will then be submitted to TfL for review. This document is a draft for consultation. Each year the Corporation is required to separately submit an annual spending submission which will be recommended to this committee and Resource Allocation Sub Committee at the appropriate time.

## Appendices

- Appendix 1 – City of London Draft Transport Strategy Delivery Plan 2019/20 to 2021/22

**Samantha Tharme**

Department of the Built Environment

T: 020 7332 3160

E: samantha.tharme@cityoflondon.gov.uk

**Appendix 1** – City of London Draft Transport Strategy Delivery Plan 2019/20 to 2021/22

# City of London Corporation

# Local Implementation Plan Delivery Plan

# 2019/20 – 2021/22

## Draft for consultation

November 2018

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# Introduction

The City of London Transport Strategy sets the 25-year framework for future investment in, and management of, the Square Mile's streets and for improvements to transport connections.

The Transport Strategy and relevant sections of the supporting three-year Delivery Plan will act as the City Corporation's Local Implementation Plan (LIP). The LIP is a statutory document (prepared under Section 145 of the GLA Act) that sets out how the City Corporation will support the delivery of the Mayors Transport Strategy (MTS).

**The sections of the Delivery Plan that are required for the LIP are presented here. Subject to approval they will then be submitted to TfL for review and published alongside the draft Transport Strategy as part of the consultation.**

The final Delivery Plan will include all transport and public realm projects funded from other sources and cover additional years, following the City's Department of Built Environment project review.

The Transport Strategy and Delivery Plan were developed to meet the needs of the City's traveling public and align the City's projects and programmes with the policy framework of the MTS. In accordance with Transport for London guidance the LIP Delivery Plan includes details of how each project will contribute to meeting the MTS priorities and further details of the projects that will be funded through the TfL's grant funding to the City Corporation.

The draft City of London Transport Strategy sets out in more detail the rational and context for the City's transport outcomes and each of the related proposals to deliver them (a copy of this is available alongside this document and was approved for consultation on the 30th October 2018).

The final Strategy and Delivery Plan will be submitted for adoption by the Planning and Transportation Committee and the Policy and Resources Committee in March 2019 and the Court of Common Council in April 2019.

# 1. City of London Transport Strategy delivery of MTS Outcomes.

The Transport Strategy and Delivery Plan were developed to meet the needs of the City's traveling public and align the City's projects and programmes with the policy framework of the MTS, including the overarching mode share aim and each of the nine outcomes. The draft City of London Transport Strategy sets out in more detail the rational and context for the City's transport outcomes and each of the related proposals to deliver them (a copy of this is available alongside this document and was approved for consultation on the 30th October 2018). An overview of the context in relationship to the Mayor's Transport Strategy is given in this section.

The overarching MTS outcome of *Changing the Transport Mix,* aiming for 80% of trips by public transport, on foot or cycle, is already exceeded in the Square Mile. The City does however appreciate its role in delivering a quality end of journey environment and enabling those trips passing through the City by these modes to be more efficient and pleasant. Additionally, the shift of freight to alternative modes and consolidation is still required. All of the City's Transport Strategy Outcomes play a role in delivering against this overarching objective.

The City's Transport Strategy outcomes which are relevant and support each of the 9 MTS outcomes is set out below.

*Outcome 1: London's streets will be healthy and more Londoners will travel actively by:*

- Making the Square Mile's streets great places to walk and spend time by prioritising the needs of people on foot and; and by enabling more people to choose to cycle by making conditions safer and more pleasant.
- Making the Square Mile more accessible and championing step-free access for all stations in the City
- Minimising the impacts of streetworks and other disruption on users of the City's streets

*Outcome 2: London's streets will be safe and secure by*

- Eliminating death and serious injuries from our streets through speed reduction, improved safety of vehicles and safer behaviours;

- Making the Square Mile's streets great places to walk, prioritising the needs of people on foot;  and enabling more to choose to cycle by making conditions safer
- Maximising the opportunities presented by new transport technologies while avoiding negative impacts and unintended consequences

*Outcome 3: London's streets will be used more efficiently and have less traffic on them by*

- Making the most efficient use of street space, reducing motor traffic and in particular the number of delivery and servicing vehicles
- Prioritising the needs of people on foot and enabling more to choose to cycle
- Maximising the opportunities presented by new transport technologies while avoiding negative impacts and unintended consequences

*Outcome 4: London's streets will be clean and green by*

- Improving air quality and reduce noise by encouraging and enabling the transition to zero emission capable vehicles
- Making the Square Mile's streets great places to walk and spend time by delivering world-class public realm

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

- Working with TfL, national government and transport providers to improve local, national and international transport connections to the Square Mile
- Maximising the opportunities presented by new transport technologies

*Outcome 6: Public transport will be safe, affordable and accessible to all*

- Making the Square Mile more accessible, championing step-free access for all stations in the City

*Outcome 7: Journeys by public transport will be pleasant, fast and reliable*

- Making the most efficient use of street space, reducing motor traffic and in particular the number of delivery and servicing vehicles
- Minimising the impacts of streetworks and other disruption
- Maximising the opportunities presented by new transport technologies

*Outcome 8: Active, efficient and sustainable travel will be the best option in new developments*

City Planning Policy, supported by the draft Transport Strategy, requires developments to support and improve sustainable travel to new and redeveloped sites and make financial contribution to improvements to the transport network including for those walking and cycling, supporting *MTS Outcome 8*.

*Outcome 9: Transport Investment will unlock the delivery of new homes and jobs*

In a wider context improving transport connections externally to the City does also support *MTS Outcome 9.*

## 2. Linkages between Delivery Plan and Mayor's Transport Strategy outcomes

| Linkages between LIP projects and programmes and the Mayor's Transport Strategy outcomes | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Project / Programme** | | **MTS mode share** | **MTS outcomes** | | | | | | | |
| | | Improving active, efficient and sustainable mode share | No !:-Active | No 2:- Safe | No 3:-Efficient | No 4:- Clean & Green | No 5:- Connected | No 6:- Accessible public transport | No 7:- Quality public transport | Nos 8 & 9 Sustainable Growth/Unlocking |
| | **Programme name** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | Barbican & Golden Lane Zero Emission Zones | ✓ | | | | ✓ | | | | |
| | City Cluster Zero Emission Zone | ✓ | | | | ✓ | | | | |
| | Streets Accessibility Standard | ✓ | ✓ | ✓ | | | | ✓ | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | City-wide 15mph – scheme development & implementation | ✓ | | ✓ | | ✓ | | | | |
| | Healthy Streets minor schemes: pedestrian priority, accessibility, cycling and road danger reduction | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| | Legible London City-wide roll out | ✓ | ✓ | | ✓ | | | | | |
| | Puddle Dock Pedestrian safety and route severance scheme | ✓ | ✓ | ✓ | | ✓ | | | | |
| | Riverside Walkway – Globe View section | ✓ | ✓ | | ✓ | | | | | |
| | Mansion House Station walking and public realm improvements | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| | 100 Minories public realm enhancements | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| | City Cycle Network Phase 1 minor schemes | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | Road Danger Reduction campaigns, behaviour change and community engagement | ✓ | ✓ | ✓ | ✓ | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Kerbside uses review | ✓ | | ✓ | ✓ | ✓ | | | | |
| | Lunchtime Streets | ✓ | ✓ | | ✓ | ✓ | | | | |
| | City Cluster scheme implementation – junction improvements and Healthy Streets improvements and pedestrian priority, walking streets (£3m total bid into 22/23) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | Principal road renewal | ✓ | | | | | | | ✓ | |
| | Implementation of bus priority in Heathy Streets minor schemes; and TfL bus priority schemes | ✓ | | | | | | | ✓ | |
| | City Cycle Network Phase one, including: CS1 – CS6 Holborn Circus to Bishopsgate via Bank | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | EV charge points – GULCS/Rapids programme | | | | | ✓ | | | | |

## 3. Three-year programme for TfL funding

This table summarises the projects that will be funded in part or in their entirety by TfL funding in the period 2019/20 – 2021/22. Funding in 2022/21 and 2021/22 is indicative and dependent on TfL's business planning process.

| TfL FUNDING 2019/20 TO 2021/22 | Allocated 2019/20 £k | Indicative 2020/21 £k | Indicative 2021/22 £k |
|---|---|---|---|
| LOCAL TRANSPORT INITIATIVES | | | |
| City Cluster and Barbican & Golden Lane Zero Emission Zones | 50 | 50 | 50 |
| Streets Accessibility Standard | 50 | | |
| City-wide 15mph – scheme development | | 50 | |
| City-wide 15mph – education and enforcement | | | 50 |
| Sub-total | 100 | 100 | 100 |

| TfL FUNDING 2019/20 TO 2021/22 | Allocated 2019/20 £k | Indicative 2020/21 £k | Indicative 2021/22 £k |
|---|---|---|---|
| CORRIDOR, NEIGHBOURHOODS & SUPPORTING MEASURES | | | |
| Healthy Streets minor schemes: pedestrian priority, accessibility, cycling and road danger reduction | 100 | 100 | 350 |
| Legible London City-wide roll out | 215 | 290 | |
| Puddle Dock Pedestrian safety and route severance scheme | 185 | 200 | |
| Riverside Walkway – Globe View section | | 100 | |
| Mansion House Station walking and public realm improvements | 40 | 60 | |
| 100 Minories public realm enhancements | 100 | | |
| City Cycle Network – Phase 1 minor schemes | | | 280 |
| City-wide 15mph – implementation | | | 100 |

| TfL FUNDING 2019/20 TO 2021/22 | Allocated 2019/20 £k | Indicative 2020/21 £k | Indicative 2021/22 £k |
|---|---|---|---|
| Road Danger Reduction campaigns, behaviour change and community engagement | 90 | 90 | 90 |
| Kerbside uses review | 110 | | |
| Lunchtime Streets | 40 | 60 | 80 |
| Sub-total (including Local Initiatives) | 980k | 1,000 | 1,000 |
| DISCRETIONARY FUNDING | | | |
| City Cluster scheme implementation – junction improvements and Healthy Streets improvements and pedestrian priority, walking streets (£3.25m total bid into 22/23)* | 100 | 1,150 | 1,000 |
| Principal road renewal | 102 | 105 | 104 |
| Bridge strengthening | tbc | tbc | Tbc |

| | | | |
|---|---|---|---|
| Sub-total | 202 | 1,255 | 1,104 |
| TfL FUNDING 2019/20 TO 2021/22 | Allocated 2019/20 £k | Indicative 2020/21 £k | Indicative 2021/22 £k |
| STRATEGIC FUNDING | | | |
| **Bus Priority** | | | |
| Implementation of bus priority in Heathy Streets minor schemes; and TfL bus priority schemes | 50 | 25 | 25 |
| **London cycle grid (Quietways programme)** | | | |
| City Cycle Network Phase one, including: CS1 – CS6 Holborn Circus to Bishopsgate via Bank | 800 | 850 | |

| | | | |
|---|---|---|---|
| **Mayor's Air Quality Fund** | | | |
| City Cluster and Barbican & Golden Lane Zero Emission Zones* | 50 | 50 | 50 |
| **Other** | | | |
| EV charge points* | 50 | 50 | 75 |
| Sub-total | 950 | 975 | 150 |
| All TfL funding | 2,132 | 3,230 | 2,254 |

* Provisional requests

## Supporting commentary for the three-year programme

In accordance with Transport for London guidance the Delivery Plan summarises how each project will contribute to meeting the MTS priorities and further details of projects that will be funded thorough the TfL's grant funding to the City Corporation.

LOCAL TRANSPORT INITIATIVES

**City Cluster and Barbican & Golden Lane Zero Emission Zones:** The City has set air quality improvement as a high priority and aims to bring in higher standards by 2022 in the City Cluster which has the highest concentration of people working, and therefore on the street at many times of day. The second area, Barbican and Golden Lane Estate has a high concentration of residents and will see more daytime visitors using the streets with the development of the Culture Mile. The current air quality monitoring and projections of air quality after the introduction of the ULEZ in 2019 show that further interventions are required to bring pollution down and work to the international health-based standards, as recommended in the MTS.

**Streets Accessibility Standard:** Through working with residents, workers and access groups we will define an accessibility standard that goes above and beyond existing accessibility requirements. This ensures that people of all abilities who use our streets have an environment where they can travel comfortably and confidently. This project supports the delivery of MTS proposal 1, reviewing removal of street furniture, improving pavements, introducing more raised tables and seating and provision for non-standard cycles.

**City-wide 15mph speed limit:** The City would like to introduce a 15mph limit across all streets. Evidence shows that the severity of accidents is significantly reduced at slower speeds. The project includes implementation of the scheme, accompanied by education and enforcement which should help deliver against the Vision Zero aim.

CORRIDOR, NEIGHBOURHOODS & SUPPORTING MEASURES

**Healthy Streets minor schemes**: Schemes will be delivered which create Healthy Streets. Providing more space for walking and cycling, better accessibility for all users and road danger reduction working towards Vision Zero. Small schemes will be identified which meet this objective and are deliverable in the short term.

**Legible London City-wide roll out:** The City supports the programme of the 'Legible London' as developed by TfL to introduce comprehensive signing across its area. Particularly as this compliments the City's ambition to make the Square Mile a world class walking city, making it more accessible and attractive to move around on foot.

**Puddle Dock Pedestrian safety and route severance scheme :** Priority pedestrian route improvement and scheme to address severance and safety at Upper Thames Street, to access riverside.

**Riverside Walkway – Globe View section:** This section of the Riverside has been closed for many years as it is not a continuous route. This means that the walkway is currently diverted onto the busy and polluted Thames Street. By completing and enhancing this section of walkway and linking it to the adjacent development, the completion of the Thames Path will be enabled and a continuous and accessible walkway along the Thames provided.

**Mansion House Station environs:** Proposals include improvements to key walking routes including routes to the station to include widening footways and accessibility improvements along with public realm improvements focussed on Little Trinity Lane that will deliver an enhanced green public space incorporating seating, lighting and noise and pollution mitigation measures.

**100 Minories public realm enhancements:** Proposals include the formation of a brand new green public space to replace under-utilised carriageway space at Crescent, along with a new north-south walking route through the new development that will improve routes to the station and accessibility improvements.

**City Cycle Network – Phase 1 minor schemes:** Minor scheme proposals will be developed which assist in providing better connections identified as necessary to provide a relaxed, connected and safer City Cycle Network.

**Kerbside uses review:** In order to manage the street space more efficiently and reduce traffic overall (particularly private motor vehicle trips) we wish to undertake a detailed kerbside use review. This will look at all aspects of kerbside use, including loading activity for freight, taxi circulation and stopping and other parking activity.

This review will enable us to identify the current inefficiencies, rationalise use, identify solutions to optimise the efficiency of kerbside for essential traffic, provide more space and infrastructure for people walking and cycling, and deter private motor vehicle trips. This will include using emerging technology for real time management of kerb space. This supports the Mayors objectives of reducing traffic and more efficient use of road space.

**Road Danger Reduction campaigns, behaviour change and community engagement:** A series of campaigns, programmes and events to influence the attitudes of road users. To achieve reductions in KSIs, and work towards the Mayor's Vision Zero a change of culture is required. Empathy towards other road users and understanding of their behaviours reduces conflict and collisions. Attitudinal surveys will be taken annually to measure the impact over time. These will include: Be Brake Ready – campaign to drivers and riders – include on street actions, multi-media campaign

The Active City Network (ACN) has been established with the aim of getting more people walking and cycling more safely.

**Lunchtime Streets:** 'Lunchtime Streets' pilots timed closures on a busy pedestrian environment during the lunchtime peak. St Mary Axe is an example where there is a high density of pedestrians at lunch, together with complaints about traffic and a history of injuries. This will be organised in summer 2019. The event will offer an opportunity to work with businesses in the area to improve the public realm and trial retiming and reduction of the number of vehicles. Further events in other local streets will be organised, with an objective of a rolling programme of at least three streets with this activity over the summer months by 2022

**City Cluster Liveable Neighbourhood:** The area defined as the City Cluster is where there is a high density of office space, with further future growth, therefore attracting high volumes of people on foot. This expanding area needs to consider more efficient ways of using street space to prioritise it for people walking and therefore better management of deliveries and reduction in freight vehicles. The opportunity to close streets completely to vehicles at peak pedestrian times is likely and provision of better public realm and green space to improve the environment is the ambition. This will match the Healthy Streets approach of the MTS.

A zero emission zone is also included for this area to be introduced in 2022 to address air quality which is currently breaching recommended levels based on both national and international health based standards for PM and NO2. This will assist in reaching the more stringent standards for PM as set out in the MTS.

Work required in advance includes traffic modelling and detailed analysis of loading and servicing requirements to buildings, in order to reduce and better manage vehicles in the area. Junction improvements will give greater priority and safety to people walking. This approach helps deliver on the Vision Zero for accidents, more active travel, better accessibility and reduction in traffic.

City Cluster scheme implementation will focus on junction improvements and Healthy Streets improvements – walking streets and pedestrian priority (£3.25m total bid into 22/23). Further improvements for a comprehensive project will be undertaken with developer contributions, subject to further approval by City Corporation committees.

**Principal road renewal:** Priorities for the next 3 year period have been identified for Newgate Street (Old Bailey to King Edward Street); this was previously deferred from this year due to long-term utility works; Holborn Viaduct (Snow Hill to Shoe Lane Bridge); previously deferred due to then unknown extent of waterproofing of viaduct sections; and London Wall (Westbound: Moorgate to Wood Street), (Eastbound: Aldersgate Rotunda to Wood Street). These priorities are based on current life-cycle, current physical conditions and forecasted conditions over the next three years. Quality of principal roads assists in providing a network for a good quality pleasant public transport experience in line with the MTS outcome 7.

STRATEGIC FUNDING

**Bus Priority:** We will undertake feasibility works for existing schemes identified by TfL to mitigate the impact of the roads modernisation plan on bus journey times. Furthermore, we will also identify opportunities to deliver bus priority to support use of public transport with in our healthy streets minor schemes. This supports the bus priority programme (page 58, TfL Business Plan) and MTS proposals 58 + 59.

**London cycle grid (Quietways programme) - City Cycle Network Phase 1:** Through assessment of requirements to provide a relaxed, connected and safer City Cycle Network the two schemes for Holborn Circus to Bishopsgate via Bank, and King William Street, Bank to Monument, also make the connections as identified by TfL London cycle grid. Thus, supporting the MTS outcomes

for more active travel and enabling cycling from further outside the Square Mile, in line with the ambition to more sustainable mode share across London.

**Mayor's Air Quality Fund - City Cluster and Barbican & Golden Lane Zero Emission Zones:** Part funding of the Zero Emission Zones is sought from the Mayor's Air Quality Fund, schemes as explained above.

**GULCS/Rapids programme – Electric vehicle charge points:** EV charge points will be needed to support the two areas proposed for Zero Emission Zones as proposed by the City for 2022, and the anticipated Central London Zero Emission Zone for 2025. The location of further charge points will be decided in conjunction with prioritisation for taxi and freight vehicles. Enabling infrastructure supports the MTS ambition for a zero carbon city and meeting air quality targets for NO2 and PM.

## 4. Proposed funding strategy – 3-year programme

The potential funding sources for the Delivery Plan are set out below, including funding from TfL, contributions from the City's own funds, and funding from developer contributions (S106, S278 and CIL). Once the City Department of the Built Environment project review is completed, additional projects will be included in the programme and therefore the total funding will be increased, with those projects delivered through City and other funds.

| Funding source | 2019/20 £k | 2020/21 £k | 2021/22 £k | Total £k |
|---|---|---|---|---|
| **TfL funding** | | | | |
| Corridors & Supporting Measures and Local Transport Initiatives | 980 | 1,000 | 1,000 | 2,980 |
| Discretionary funding | 202 | 1,255 | 1,104 | 2,561 |
| Strategic funding | 950 | 975 | 150 | 2,075 |
| Sub total | 2,132 | 3,230 | 2,254 | 7,616 |
| **City funding** | | | | |
| Parking revenue | 1,000 | 444 | | 1,444 |

| Funding source | 2019/20 £k | 2020/21 £k | 2021/22 £k | Total £k |
|---|---|---|---|---|
| **Other sources of funding** | | | | |
| S106 | 1,590 | 1,070 | 697 | 3,357 |
| S278 | 610 | 380 | 800 | 1,790 |
| CIL | 0 | 100 | 300 | 400 |
| Third party contributions | 470 | 610 | 650 | 1,730 |
| Total | 5,802 | 5,834 | 4,701 | 16,337 |

## 5. Delivery Plan Medium to Long-term Programme

The table below summarises the programmes that the City of London is anticipating delivering up to 2041. These programmes will be subject to a detailed prioritisation process in line with the Transport Strategy, Local Plan and City of London Corporate Priorities. For the final approved Transport Strategy Delivery Plan and Local Implementation Plan a more detailed programme of projects for delivery up to 2021/22 will be provided which will be in addition to those under the TfL funded programme. All projects are subject to City Corporation approval processes, including relevant Committee and Sub-Committee approval. The total cost includes delivery beyond the current Plan period, funding sources are for all years of the project and may vary year-by-year.



| Project | Project description | Anticipated completion date | Funding sources | Estimated Total cost £k |
|---|---|---|---|---|
| Sustainable logistics centre | Co-location major suppliers in a single warehouse, alongside consolidation, waste collection and courier services. First three years of funding are for feasibility and scheme development. | 2030 | CoL | TBC |
| City Cycle Network Phase 1 | Including:<br>CS1 to CS6 | 2030 | CoL | 8,000 |

| | | | | |
|---|---|---|---|---|
| | King William St (Bank to Monument)<br><br>St Paul's to CS2/CS3<br><br>Bank to Blackfriars | | TfL<br><br>Developer contributions | |
| Core Cycle Network – Phase 2 | Delivery of core cycle network, including the following routes<br><br>• Aldgate to Holborn via Bank (CS2 – CS6 connection)<br>• CS3 to St Paul's via City Cluster and London Wall<br>• CS1 – CS4 via Bank and Monument<br><br>CS2 – CS3 via Mansell Street | 2030 -2044 | CoL<br><br>TfL<br><br>Developer contributions | TBC |
| Bank Junction and surrounding streets | Walking and public realm improvements to deliver | 2025 | CoL<br><br>Developer contributions | 17,000 |
| Moorgate area | Walking improvements to junction and surrounding public realm (in conjunction with Crossrail) | 2025 | Developer contributions<br><br>Crossrail | 9,500 |

| | | | | |
|---|---|---|---|---|
| | and to streets connecting Moorgate Station, Liverpool Street Station and the City Cluster | | | |
| Culture Mile | Delivery of public realm improvements to support Culture Mile;<br><br>and Beech Street public realm, traffic management improvements | 2026 | CoL<br><br>Developer contributions | 20,000 |
| Museum of London roundabout, St Paul's gyratory | Removal of St Paul's gyratory system and Museum of London roundabout, including measures to support the delivery of the Centre for Music | 2028 | Developer contributions | 27,800 |
| City Cluster | Delivery of the City Cluster Area Strategy and associated traffic management and Healthy Streets measures | 2030 | TfL<br><br>Developer contributions | 20,000 + |
| Fleet Street and Courts Area | Area improvement scheme for Fleet Street between Chancery Lane and Ludgate Circus | 2025-2040 | CoL<br><br>Developer contributions | 10,000 |

## 6. TfL Business Plan

In developing and preparing the Transport Strategy and Delivery Plan we have considered the Mayor's aspiration to deliver the major projects in TfL's Business Plan and the milestones associated with these projects. The following TfL projects have implications for the City of London. This will be reviewed with the new TfL business plan anticipated in December 2019.

Old Street roundabout

Whilst the physical extent of works on this scheme fall solely within the London Borough of Islington, there are potential traffic implications to the City of London highway network. We are working with officers from Transport for London and the London Borough of Islington to identify and resolve any issues which may occur.

Ultra-Low Emission Zone (ULEZ)

Delivery of ULEZ is an important step to improving air quality in the Square Mile and surrounding central London boroughs, which the City Corporation supports. Supporting works such as signage on the City highway network will be delivered by Transport for London.

Elizabeth Line

On completion, the Elizabeth Line will make a significant public transport provision improvement to the Square Mile with access to the new line at Smithfield, Moorgate and Liverpool Street. To support the increased footfall at these sites, the City of London are delivering improvements at these new ticket halls.

At Smithfield we are widening pavements, improving crossing points and resurfacing all carriageways and footways. At Moorgate we will close the southern end of Moorfields to vehicles except for those servicing buildings and the area immediately outside the station will be reinstated with high quality materials and artworks. Moorgate itself will benefit from slower traffic and improved informal crossings.

Liverpool Street will be pedestrianised in the area surrounding the station. This will be supported by wider footways and improved crossings in Eldon Street, Blomfield Street and Old Broad Street. We will also develop options for improving the eastern end of Liverpool Street and Old Broad Street north of London Wall to support the increased expected pedestrian numbers in the area.

Bank Station Update

The Bank Station Upgrade will provide a significant capacity upgrade to Bank station at a platform level as well as new escalators, a new entrance resulting in a 40% capacity uplift. This will provide much required increased connectivity and accessibility improvements in the Square Mile.

To support the scheme, the City has closed Arthur Street and Nicholas Lane to traffic whilst works are undertaken and will support in public realm and highways improvements at the new ticket hall.

Modernisation of the Circle, District, Hammersmith & City and Metropolitan Lines

The modernisation of the sub-surface lines will bring a welcome improvement in public transport capacity to and around the City. We are undertaking no complementary works to support signalling and rolling stock upgrades.

Deep Tube Upgrade Programme

The Deep Tube Upgrade Programme will bring a welcome improvement in public transport capacity to and around the City. We are undertaking no complementary works to support signalling and rolling stock upgrades.

DLR Rolling Stock

The new DLR rolling stock will bring a welcome improvement in public transport capacity to and around the City. We are undertaking no complementary works to support rolling stock upgrades.

## 7. Risks to the delivery of the three-year programme

The principal risks associated with delivery of the TfL funded programme of projects are summarised below together with possible mitigation actions. Risk registers are being developed for all projects that will receive funding in 2019/20. The principal project risks will be included in the final version of this Delivery Plan.

| Risk | Likelihood | Potential mitigation measures | Impact if not mitigated |
|---|---|---|---|
| **Financial** | | | |
| There is a risk that funding sources, both TfL and other sources, become unavailable, are reduced or are not available at the time they are needed. | L | Seek funding from other sources or reprofile other projects to allow funding to be reallocated<br><br>Change the project scope to react to the unavailability or delay in funding to allow the main elements of the project to still be delivered | Projects may be delayed, closed prematurely or removed from the programme |

| Risk | Likelihood | Potential mitigation measures | Impact if not mitigated |
|---|---|---|---|
| **Statutory / Legal** | | | |
| The two main statutory/legal risks associated with the programme are:<br>• Approval is not obtained from TfL for the exercise of the Highways Act or Traffic Management Act Road powers for affected streets | L | Ensure projects are aligned with the MTS and engage TfL in the development of projects | Projects may be removed from the programme |
| • Objections are made to Traffic Order proposals under the Road Traffic Regulation Act | M | Thorough and early engagement and consultation with all relevant stakeholders and interested parties | Projects may be delayed or removed from the programme |

| Risk | Likelihood | Potential mitigation measures | Impact if not mitigated |
|---|---|---|---|
| **Third Party** | | | |
| The main third party risks are:<br>• Stakeholders and interested parties are disengaged with the programme | M | Thorough engagement and consultation with all relevant groups, persons and bodies interested and/or impacted by the programme | There could be a lack of ownership and support from the wider community and/or objections made to projects. |
| • There is a lack of alignment with the City of London aspirations and those of neighbouring boroughs | M | Close and collaborative working with the boroughs of Tower Hamlets, Hackney, Camden, Islington, Westminster, Lambeth and Southwark; including through the Central London Sub-regional Transport Partnership | Projects could conflict with each other resulting in projects being delayed or becoming undeliverable |

| Risk | Likelihood | Potential mitigation measures | Impact if not mitigated |
|---|---|---|---|
| **Public / Political** | | | |
| Elements of the programme could be seen as unambitious or too radical by members | L | Keeping members involved and engaged early on in the development of projects, and keep them up to date and aware of the aspirations of the Mayor of London, the Mayor's Transport Strategy and our commitment to its delivery. | Projects do not receive approval and are delayed or abandoned |
| **Programme & Delivery** | | | |
| Changes in staffing could provide the following programme and delivery risks;<br>• An inadequate level of resourcing | M | Prepare a resourcing plan to manage and allocate staff time and update throughout the programme. | Delay to the delivery or reduced quality of projects and programme |
| • A lack of required skills or knowledge | M | Identify where skills/knowledge are limited in the resourcing plan and provide training where appropriate. | Reduced quality of projects and programme |

## 8. Monitoring the delivery of the outcomes of the Mayor's Transport Strategy

In line with MTS aspirations we are aiming for an active and sustainable mode share target of 99 percent by 2040. This would make the City one of the cleanest and healthiest central business districts in the world. We have also set targets against key MTS outcome indicators, summarised in the table below.

The City Corporation will monitor and record delivery indicators and report to TfL annually using Proforma C.

Additionally, the City will report on the local indicators listed in our Transport Strategy. These indicators will be supported by a City Streets Report published every two years which will provide indicator data updates and an analysis of traffic trends based on our biennial vehicular and pedestrian counts.



| Objective | Metric | City target | Target year | Additional commentary |
|---|---|---|---|---|
| **Overarching mode share aim – changing the transport mix** | | | | |
| Londoners' trips to be on foot, by cycle or by public transport | Active, efficient and sustainable (walking, cycling and public transport) mode share (by City/borough resident) based on average daily trips. Base period 2013/14 - 2015/16. | 99 | 2041 | The City is working to make the City a great place for walking and cycling through numerous proposals and an emphasis on prioritising pedestrians on our streets. |

| Objective | Metric | City target | Target year | Additional commentary |
|---|---|---|---|---|
| **Healthy Streets and healthy people** | | | | |
| **Outcome 1: London's streets will be healthy and more Londoners will travel actively** | | | | |
| Londoners to do at least the 20 minutes of active travel they need to stay healthy each day | Proportion of London residents doing at least 2x10 minutes of active travel a day (or a single block of 20 minutes or more). | 70 | 2041 | The City is enhancing its walking and cycling networks alongside making every street accessible to all. |
| Londoners have access to a safe and pleasant cycle network | Proportion of Londoners living within 400m of the London-wide strategic cycle network. | 100 | 2041 | The planned extension to the City cycling network alongside additional TfL strategic cycle schemes will ensure that nearly every City property is within 400m of an enhanced cycling link. |

| Outcome 2: London's streets will be safe and secure | | | | |
|---|---|---|---|---|
| Deaths and serious injuries from all road collisions to be eliminated from our streets | Deaths and serious injuries (KSIs) from road collisions, base year 2005/09 (for 2022 target) | 17 | 2022 | The City will adopt a Safe Systems approach to reducing road danger to ensure that no one is killed or seriously injured on our streets in 2040. |
| | Deaths and serious injuries (KSIs) from road collisions base year 2010/14 (for 2030 target). | 16 | 2030 | The City will adopt a Safe Systems approach to reducing road danger to ensure that no one is killed or seriously injured on our streets in 2040. |

| Outcome 3: London's streets will be used more efficiently and have less traffic on them | | | | |
|---|---|---|---|---|
| Reduce the volume of traffic in London. | Vehicle kilometres in given year. Base year 2015. Reduce overall traffic levels by 10-15 per cent. | 80 million km | 2041 | The City is aspiring to reduce motor traffic volumes by 30% by 2030, and by another 50% on top of this reduction by 2050. |
| Reduce the number of freight trips in the central London morning peak. | 10 per cent reduction in number of freight vehicles crossing into central London in the morning peak period (07:00am - 10:00am) by 2026. | N/A | N/A | N/A |
| Reduce car ownership in London. | Total cars owned and car ownership per household, City residents. Quarter of a million fewer cars owned in London. Base period 2013/14 - 2015/16. | 2,600 | 2041 | The City will support a reduction in the total number of cars owned by improving walking and cycling conditions across the City. |

| | | | | |
|---|---|---|---|---|
| **Outcome 4: London's streets will be clean and green** | | | | |
| Reduced $CO_2$ emissions. | $CO_2$ emissions (in tonnes) from road transport within the City. Base year 2015/16. | 11,700tn | 2041 | The City aims to cut all transport related local air pollution and carbon emissions to virtually zero and streets will be quieter more relaxing places. Together with wider action to reduce emissions from buildings and development this will mean that the City enjoys some of the cleanest urban air in the world. |
| Reduced $NO_x$ emissions. | $NO_X$ emissions (in tonnes) from road transport within the City. Base year 2013. | 10tn | 2041 | |
| Reduced particulate emissions. | $PM_{10}$ and $PM_{2.5}$ emissions (in tonnes) from road transport within City. Base year 2013. | 7/3tn | 2041 | |
| **A good public transport experience** | | | | |
| **Outcome 5: The public transport network will meet the needs of a growing London** | | | | |
| More trips by public transport - 14-15 million trips made by public transport every day by 2041. | Trips per day by trip origin. Reported as 3yr moving average. Base year 2013/14 - 2015/16. | 12 | 2041 | The City will continue to work with TfL to improve public transport connectivity to the City. |

| | | | | |
|---|---|---|---|---|
| **Outcome 6: Public transport will be safe, affordable and accessible to all** | | | | |
| Everyone will be able to travel spontaneously and independently. | Reduce the difference between total public transport network journey time and total step-free public transport network | 4 minute difference | 2041 | We will work with TfL to prioritise investment in accessibility improvements to Underground and DLR stations within the Square Mile, beginning with making Bank Station accessible. Our ambition is that all stations within the Square Mile are accessible by 2044. |
| **Outcome 7: Journeys by public transport will be pleasant, fast and reliable** | | | | |
| Bus journeys will be quick and reliable, an attractive alternative to the car | Annualised average bus speeds, base year 2015/16 | 6.7 | 2041 | The City proposes a number of measures that, in conjunction with TfL's proposed changes, will aim to improve bus journey times. Our traffic reduction ambitions will also provide significant bus priority in the form of better traffic flow for all street users. |

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| Committee(s): | Date(s): |
|---|---|
| Policy and Resources Committee - for decision<br>Planning and Transportation Committee – for decision | 15 November 2018<br>20 November 2018 |
| **Subject:**<br>Transport for London funding: LIP Annual Spending Submission 2019/20, Liveable Neighbourhood | **Public** |
| **Report of:**<br>Carolyn Dwyer, Director of the Built Environment | **For Decision** |


**Summary**

This report covers the provision of Transport for London funding to the City of London Corporation. Alongside the Planning and Transportation Committee, this report would usually be submitted to the Resource Allocation Sub Committee (RASC); however, in order to meet TfL timetable to receive Annual Spending Submission in November this is being brought to the Policy and Resources Committee directly, as the next meeting of RASC is not until December.

It seeks approval for the projects that will be included in the City Corporations 2019/20 Annual Spending Submission which allocates 'Corridors, Neighbourhoods & Supporting Measures' and 'Local Transport Initiatives' grants totalling £980,000. The schemes which can be selected for this TfL Corridors, Neighbourhoods funding stream are limited to those which meet TfL Mayor's Transport Strategy (MTS) criteria.

The report also seeks approval to spend additional grant funding for the current financial year of £106,822. It is proposed that this is used to support the delivery of Legible London maps and signs across the Square Mile.

Members are asked to give the Director of the Built Environment delegated authority to approve reallocations of the 2019/20 Corridors and Neighbourhoods and Local Transport Initiatives grants of up to £100,000 within the financial year, across the programme. Any reallocations will be subject to TfL approval.

Finally, the report requests that Members approve the submission of a Liveable Neighbourhood bid to seek a £3.25 million contribution towards transport and public realm improvements in the City Cluster. Liveable Neighbourhoods is a programme that funds large projects (over £1 million) that will deliver area-based transport and public realm improvements.


**Recommendations**

Members are recommended to:-

- Approve the projects to be included in the City Corporation's 2019/20 Annual Spending Submission.
- Approve delegated authority for the Director of the Built Environment to approve reallocations of the 2019/20 Corridors and Neighbourhoods grant of up to £100,000 within the financial year.
- Approve the allocation of the additional awarded sum of £106,822 for 2018/19 to the delivery of Legible London
- Approve the submission of a Liveable Neighbourhoods bid for the City Cluster.

## Main Report

### Background

1. Under Section 159 of the Greater London Authority Act 1999, TfL is empowered to provide grants to London boroughs and the City for the provision of safe, efficient and economically viable transportation facilities and (or) services to, from or within Greater London.

2. Every year, TfL provides grants to the City under the Corridors, Neighbourhoods and Supporting Measures, Local Transport Initiatives and Principal Road Maintenance programme.

3. For the 2019/20 financial year TfL will provide the following grants to the City of London:

    - A combined grant of £980,000 under the Corridors, Neighbourhoods and Supporting Measures and Local Transport Initiatives programmes. The City has some discretion over the use of this grant; however, it must be expended on projects that support the delivery of the Mayor's Transport Strategy.
    - £102,000 under the Principal Road Maintenance funding programme. The Principal Road Maintenance grant must be used specifically for the purpose of road renewal, resurfacing and bridge strengthening. The £102,000 allocated to Principal Road Maintenance will be determined by the road renewal, resurfacing and engineering needs within the Transportation and Public Realm Division of the Department of Built Environment.

4. Additional funding is available through the Liveable Neighbourhoods programme for larger projects with a total cost of over £1 million. This funding is allocated through a bidding process that is open to the City Corporation and London boroughs.

5. The Liveable Neighbourhoods programme aims to support high value schemes that seek to convert town centres, interchanges, major junctions and neighbourhoods into more attractive, healthy and accessible public spaces. The programme focuses on improving conditions for walking and cycling, improving access to public transport and implementing traffic reduction measures.

### 2019/20 Annual Spending Submission

6. The proposed Annual Spending Submission for the 2019/20 TfL Corridors, Neighbourhoods and Supporting Measures and Local Transport Initiatives grants are set out in Table 1.

7. These projects are in line with TfL's guidance, reflect the Mayor's Transport Strategy and the draft Transport Strategy. A brief description of each proposed project is provided in Appendix 1.

8. The schemes which can be selected for this TfL Corridors, Neighbourhoods funding stream are limited to those which meet TfL MTS criteria. Additionally, the schemes have been selected as they support the City's draft Transport Strategy

and have limited opportunity to be funded from other sources. Two of the public realm schemes (Minories and Mansion House have been approved in previous years and are a continuation to complete these projects).

| **Table 1: Proposed Annual Spending Submission for 2019/20** | |
|---|---|
| | **Proposed Allocation** |
| **Local Transport Initiatives** | |
| City Cluster and Barbican & Golden Lane Zero Emission Zones | £50,000 |
| City of London Streets Accessibility Standard | £50,000 |
| *Sub total* | *£100,000* |
| | |
| **Corridor, Neighbourhoods & Supporting Measures** | |
| Healthy Streets minor schemes | £100,000 |
| Legible London City-wide Roll Out | £215,000 |
| Puddle Dock Pedestrian safety and route severance scheme* | £185,000 |
| Mansion House Station walking and public realm improvements | £40,000 |
| 100 Minories public realm enhancements | £100,000 |
| Road Danger Reduction campaigns, behaviour change and community engagement | £90,000 |
| Kerbside uses review | £110,000 |
| Lunchtime Streets | £40,000 |
| *Sub total* | *£880,000* |
| | |
| **Grand Total** | ***£980,000*** |

*(*Puddle Dock subject to DBE Project Review)*

9. The reallocation of funds between projects during a financial year is often required in response to resourcing and operational issues or new priorities. Approval is sought for the Director of the Built Environment to be given delegated authority to approve reallocations of up to £100,000 across the whole programme within the financial year (2019/20). Any individual project budget changes will still be subject to the usual project procedure gateway approvals.

**2018/19 Additional grant allocation**

10. TfL has awarded the City Corporation an additional £106,822 funding for the current financial year the Corridors, Neighbourhoods and Supporting Measures programme. This brings our total grant for 2018/19 to £1,122,822.

11. Members are asked to approve the allocation of this additional sum to the Legible London project, which can fully utilise the funding in the current financial year.

**Liveable Neighbourhoods**

12. It is proposed that a Liveable Neighbourhood bid of £3.25 million be submitted to TfL to seek a contribution towards the costs of delivering transport and public realm improvements in the City Cluster. This bid will cover financial years up to 2022/23 and therefore go beyond the next LIP 3yr plan period. The City Cluster scheme is part of the DBE project review and will therefore be subject to further consideration

later this financial year by Resource Allocation Sub-Committee. Indicative amounts for the City Cluster scheme are in the region of £20m, including CIL, S106, S278.

**Corporate & Strategic Implications**

13. The use of TfL grants will support the delivery of the City of London Corporate Plan, and in particular the 'People are safe and feel safe' and 'We are digitally and physically well connected and responsive' priorities. The projects are also aligned with the draft Transport Strategy and the Department of Built Environment Business Plan.

**Conclusion**

14. The proposed 2019/20 Corridors, Neighbourhoods & Supporting Measures projects and Liveable Neighbourhood bid are in line with TfL guidance, the Mayor's Transport Strategy and corporate objectives and priorities.

15. The use of TfL grants for the 2019/20 financial year will provide an appropriate external funding source which will assist in limiting the City Corporation's financial outgoings.

16. All programmes funded by TfL grants must be completed within the 2019/20 financial year. City of London officers will monitor the expenditure of Transport for London grants to ensure funds are fully spent.

**Appendices**

- Appendix 1 –Summary of proposed 2019/20 Corridors, Neighbourhoods & Supporting Measures and Local Transport Initiatives projects

**Samantha Tharme**
Department of the Built Environment
T: 020 7332 3160
E: samantha.tharme@cityoflondon.gov.uk

**Appendix 1: Summary of proposed 2019/20 Corridors, Neighbourhoods & Supporting Measures and Local Transport Initiatives projects**

## Local Transport Initiatives

### City Cluster and Barbican & Golden Lane Zero Emission Zones

The draft Transport Strategy includes a proposal to establish local Zero Emission Zones covering the City Cluster and Barbican and Golden Lane estates. This funding will support the development of the Zero Emission Zones prior to implementation in following years. This will build on the proposals for emission related restrictions for Moor Lane within the existing Barbican Low Emission Neighbourhood. Further proposals for Beech Street also aim to address poor air quality, this scheme is part of the COL funded programme of work which is not included in this draft document. (CoL funded programme will be included in final document after the Project Review has been undertaken).

### Streets Accessibility Standard

Through working with residents, workers and access groups we will define an accessibility standard that goes above and beyond existing accessibility requirements. This ensures that people of all abilities who use our streets have an environment where they can travel comfortably and confidently.

## Corridor, neighbourhoods & supporting measures

### Healthy Streets minor schemes

Small-scale projects to support the delivery of Healthy Streets including implementing measures to increase priority for pedestrians, improve accessibility, and reduce road danger. Schemes will be identified throughout the year.

### Legible London City-wide roll out

The replacement of existing wayfinding with Legible London was agreed at Streets and Walkways Sub-Committee on 24 November 2017. Legible London maps and signs were developed by Transport for London to make it easier for people to walk around London. They provide a consistent approach to wayfinding, with over 1,700 signs and maps already installed across the Capital.

### Puddle Dock Pedestrian safety and route severance scheme*

Priority pedestrian route improvement and scheme to address severance and safety at Upper Thames Street, to access riverside. If not supported at project review stage can be diverted to similar scheme subject to usual approvals and agreement with TfL.

### Mansion House Station environs.

Proposals include widening footways and accessibility improvements along with public realm. Improvements focused on Little Trinity Lane will deliver an enhanced green public space incorporating seating, lighting and noise and pollution mitigation measures.

**100 Minories public realm enhancements**
Proposals include the formation of a brand new green public space to replace under-utilised carriageway space at Crescent, along with a new north-south walking route through the new development that will improve routes to the station and accessibility.

**Road Danger Reduction campaigns, behaviour change and community engagement**
This encompasses a series of campaigns, programmes and events to influence the attitudes of road users and initiate a change in culture to achieve reductions in the number of people killed and seriously injured on City streets. This will include undertaking attitudinal surveys annually and delivering the Be Brake Ready campaign aimed at drivers and riders.

**Kerbside uses review**
This review will look at all aspects of kerbside use, including loading activity for freight, taxi circulation and stopping and other parking activity. This review will enable us to identify the current inefficiencies, rationalise use, identify solutions to optimise the efficiency of kerbside for essential traffic, provide more space and infrastructure for people walking and cycling, and deter private motor vehicle trips. This will include using emerging technology for real time management of kerb space.

**Lunchtime Streets**
'Lunchtime Streets' are pilot timed closures in busy pedestrian environments during the lunchtime peak. St Mary Axe is an example where there is a high density of pedestrians at lunch, together with complaints about traffic and a history of injuries. This will be organised in summer 2019. The event will offer an opportunity to work with businesses in the area to improve the public realm and trial retiming and reduction of the number of vehicles. Further events in other local streets will be organised, with an objective of a rolling programme of at least three streets with this activity over the summer months by 2022

| **Committee:**<br>Planning and Transportation Committee | **Date:**<br>20 November 2018 |
|---|---|
| **Subject:**<br>Discontinuance of the Broad Street House City Walkway, the 99 Bishopsgate City Walkway and the 55 Bishopsgate City Walkway | **Public** |
| **Report of:**<br>The Director of the Built Environment | **For Decision** |

**Summary**

Arrangements are being made to allow for safe fire egress from all buildings that currently rely on the Broad Street House city walkway (CW45), the 99 Bishopsgate city walkway (CW6) and the 55 Bishopsgate city walkway (CW7) to provide these egresses through reciprocal access agreements. As a result, it is now considered appropriate for the City Corporation to discontinue these three city walkways and thereby finally effect the completion of the deletion of the Liverpool Street Station to Leadenhall Street highwalk, most of which has already been demolished.

**Recommendation**

It is recommended that your Committee:—

1. Resolve to discontinue the Broad Street House city walkway (CW45), the 99 Bishopsgate city walkway (CW6) and the 55 Bishopsgate city walkway (CW7) on a date to be determined in the terms of the resolution set out at Appendix 1 to this report.

2. Delegate authority to the Transport Planning and Development Manager to insert an appropriate date for the resolution to come into force.

**Main Report**

**Background**

1. On 17 July 1986 the Court of Common Council resolved to declare from 30 October 1986 a city walkway, being all that way or place being the walkway from the southern side of Wormwood Street to the staircase in Bishopsgate Churchyard, including the footbridge over Wormwood Street and the stretch of walkway adjacent to Broad Street House. This report refers to this city walkway as the Broad Street House city walkway (CW45).

2. On 2 April 1998 the Court of Common Council resolved to declare from 1 May 1998 a city walkway, being all that way or place being the podium-level walkway from the city walkway of the Wormwood Street footbridge to the walkway at 55 Bishopsgate. This report refers to this city walkway as the 99 Bishopsgate city walkway (CW6).

3. Also on 2 April 1998 the Court of Common Council resolved to declare from 1 May 1998 a city walkway, being all that way or place being the walkway at podium level on 55 Bishopsgate between the city walkway at 99 Bishopsgate to the city walkway at podium level at the International Financial Centre. This report refers to this city walkway as the 55 Bishopsgate city walkway (CW7).

4. These three city walkways formed part of a more extensive highwalk route between the eastern side of Old Broad Street at Bishopsgate Churchyard, over these three city walkways, to the north-east of Tower 42 and over a city walkway bridge over Bishopsgate, and on to the northern side of Leadenhall Street. It was originally intended that this highwalk route between Liverpool Street Station and Leadenhall Street be part of a much more extensive City-wide network of pedestrian highwalks.

5. In developing the City of London Unitary Development Plan 2002 the City Corporation finally determined that the City-wide pedestrian highwalk network idea should not be pursued further and made decisions as to which already constructed highwalks should be retained and which should not be replaced when the buildings through which they passed were redeveloped. The Liverpool Street Station to Leadenhall Street highwalk was one of two highwalks designated in the 2002 Unitary Development Plan as "to be deleted". Paragraph 9.38 of the 2002 Unitary Development Plan noted that:

   *Where upper level walkway links through buildings exist which no longer form part of the network, applications for their change of use or redevelopment will normally be considered favourably. Where appropriate, proposals should provide for adequate alternative emergency escape routes for buildings which use the walkway for that purpose.*

6. On 18 March 2008 your Committee resolved to alter from 28 April 2008 the Broad Street House city walkway so as to exclude all that the way or place being the high-level walkway around Broad Street House, including the staircase onto Bishopsgate Churchyard. The city walkway was varied to allow for the extension of the office accommodation at Broad Street House by infilling part of the city walkway at podium level.

7. A plan of the three city walkways, as varied by your Committee's resolution on 18 March 2008 to allow the extension of the office accommodation at Broad Street House, is appended to this report as Appendix 1.

8. Ideally all of the city walkways forming part of the highwalk to be deleted would have been discontinued at the time of your Committee's 18 March 2008 resolution relating to Broad Street House, but the fire egress requirements of the various buildings through which the highwalk passed meant that that was not possible at that time, and so only the Broad Street House city walkway was altered so as to exclude its northern extent required for the extension of the office accommodation.

9. On 26 July 2018 your Committee delegated to the Assistant Director (City Public Realm) authority to restrict access to the city walkway bridge over Wormwood Street, (part of the remaining part of the Broad Street House city

walkway), for a period of up to three months in order to allow a major artwork within the Sculpture in the City programme to be sited on the city walkway bridge. The artwork is entitled Bridging Home (London) 2018 and is an installation by the Korean sculptor and installation artist Do Ho Suh that represents his childhood home, a traditional Korean house (hanok).

10. Access along and the use of the city walkway bridge was temporarily suspended under the delegated authority given by your Committee on 11 September 2018 and the artwork was installed. The temporary prohibition on access and use is anticipated to last until 10 December 2018, which is the maximum period (of three months) permitted by the City of London (Various Powers) Act 1967 (cf. section 11A(3)), unless the city walkways are discontinued prior to this date (*see below*), in which case the temporary prohibition on access and use would cease at the same time that the city walkways are discontinued.

**Current Position**

11. The installation of the Bridging Home (London) 2018 artwork on the Wormwood Street city walkway bridge and the desire to retain this artwork in place as part of the Sculpture in the City programme beyond December this year has given fresh impetus to concluding the deletion of the redundant highwalk, most of which has now been demolished. The Broad Street House city walkway, the 99 Bishopsgate city walkway and the 55 Bishopsgate city walkway are the only three remaining sections of the highwalk that is to be deleted.

12. I am pleased to advise that agreement in principle has now been reached with the landowners of 26 Wormwood Street, Broad Street House, 99 Bishopsgate and 55 Bishopsgate to allow for the fire egresses required by their buildings that are currently provided by the three remaining city walkways to be provided instead by mutual agreement among the landowners. The owners of 26 Wormwood Street have advised that they can and are willing to rely on fire egress directly onto Wormwood Street, and the other three landowners are willing to provide access through their properties to allow for safe fire egress for their neighbors.

13. As a result, the three city walkways can be discontinued once final agreement has been reached between the relevant parties, and it is therefore recommended that your Committee resolves to discontinue these three city walkways and delegates authority to the Transport Planning and Development Manager to insert the date for your resolution to come into effect.

**Proposal**

14. As arrangements are being agreed to allow for safe fire egress from all buildings that currently rely on the city walkways to provide this, it is now considered appropriate for the City Corporation to discontinue the three city walkways refererred to in this report as the Broad Street House city walkway, the 99 Bishopsgate city walkway and the 55 Bishopsgate city walkway.

15. Appropriate wording for a resolution to effect discontinuances of these three city walkways, including plans, is appended to this report as Appendix 2.

16. Colour copies of the plans at A3 size are available in the Members' Reading Room and will be displayed in the Livery Hall immediately prior to and during your Committee's meeting on 20 November 2018. The plans can also be e-mailed to any Member and to any other person who wishes to receive them so that they can be viewed more conveniently.

**Corporate and Strategic Implications**

17. Discontinuing the three city walkways, and thereby finally effecting the completion of the deletion of the Liverpool Street Station to Leadenhall Street highwalk, most of which has already been demolished, would serve to deliver on the City Corporation's adopted planning policy.

**Financial Implications and Risks**

18. There are costs involved with the discontinuances of the city walkways, including officer time and publication costs, and with negotiating and concluding agreement with the landowners, but these costs will be relatively minor and can be contained with the Director of the Built Environment's local risk budget.

**Conclusion**

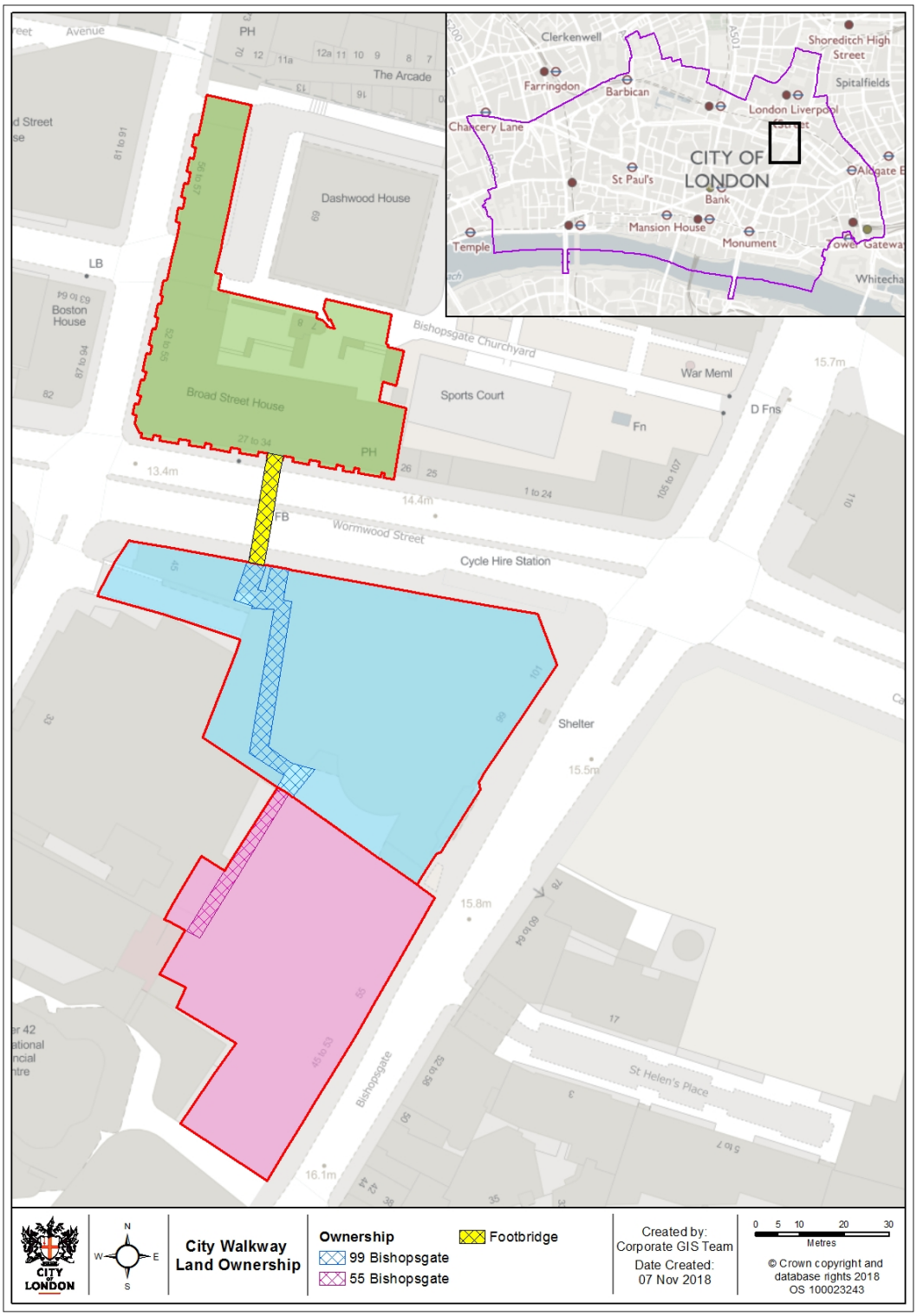
19. Arrangements are being made to allow for safe fire egress from all buildings that currently rely on the Broad Street House, 99 Bishopsgate and 55 Bishopsgate city walkways to provide these egresses through reciprocal access agreements. As a result, it is now considered appropriate for the City Corporation to discontinue the three city walkways referred to in this report as the Broad Street House city walkway (CW45), the 99 Bishopsgate city walkway (CW6) and the 55 Bishopsgate city walkway (CW7).

**Appendices**

Appendix 1: plan of the Broad Street House city walkway, the 99 Bishopsgate city walkway and the 55 Bishopsgate city walkway

Appendix 2: recommended resolution of the Planning and Transportation Committee

**Craig W. J. S. Stansfield**
Transport Planning and Development Manager
Department of the Built Environment
telephone: + 44 7802 378 810
e-mail: Craig.Stansfield@CityOfLondon.Gov.UK


Clerkenwell
Shoreditch High Street
Farringdon
Barbican
Spitalfields
London Liverpool
Chancery Lane
CITY OF LONDON
St Paul's
Bank
Mansion House
Monument
Temple
Dashwood House
Broad Street House
Boston House
Bishopsgate Churchyard
Sports Court
War Meml
D Fns
Fn
PH
FB
Wormwood Street
Cycle Hire Station
Shelter
St Helen's Place
Bishopsgate
13.4m
14.4m
15.5m
15.8m
16.1m
15.7m
City Walkway Land Ownership
Ownership
99 Bishopsgate
55 Bishopsgate
Footbridge
Created by: Corporate GIS Team
Date Created: 07 Nov 2018
0 5 10 20 30
Metres
© Crown copyright and database rights 2018 OS 100023243

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**APPENDIX 2a:**

**RESOLUTION OF THE PLANNING AND TRANSPORTATION COMMITTEE**

(under powers delegated to them by the Court of Common Council on 19 July 2001)

**DATED** the twentieth day of November 2018.

**WHEREAS** the Mayor and Commonalty and Citizens of the City of London acting by the Planning and Transportation Committee pursuant to the delegation to that Committee specified *above* (hereinafter called "the City") are authorized by section 6 of the City of London (Various Powers) Act 1967 (as amended) (hereinafter called "the Act") **BY RESOLUTION TO DECLARE** any way or place in the City of London appearing to the City

(i) to be laid out or otherwise suitable for a city walkway within the meaning of section 5 of the Act,

(ii) to which access is available directly from a street or another way or place that is a city walkway, and

(iii) which is laid out or rendered suitable for a city walkway in accordance with one of the provisions specified in subsection (1) of the said section 6

**TO BE A CITY WALKWAY** as from such date as may be specified in such resolution

**AND WHEREAS** the City are further authorized by the said section 6, by resolution, to vary or rescind any resolution declaring a city walkway

**AND WHEREAS** it appears to the City that the resolution made by them on 17 July 1986 (hereinafter called "the 17 July 1986 Resolution") as varied by the resolution made by them on 31 March 2008 (hereinafter called "the 31 March 2008 Resolution"), and the resolution made by them on 2 April 1998 (hereinafter called "the First 2 April 1998 Resolution"), and the resolution made by them on 2 April 1998 (hereinafter called "the Second 2 April 1998 Resolution") should be rescinded

**NOW THEREFORE** the City in pursuance of section 6(5) of the Act by resolution **HEREBY RESCINDS the 17 July 1986 Resolution as varied by the 31 March 2008 Resolution; and the First 2 April 1998 Resolution; and the Second 2 April 1998 Resolution** to discontinue the city walkways described in the Schedule hereto on and after the [to be inserted by the Transport Planning and Development Manager] day of [to be inserted by the Transport Planning and Development Manager].

**SCHEDULE**

**ALL THOSE** ways or places

from Broad Street House over the city walkway bridge over Wormwood Street to the southern side of Wormwood Street via the staircase more particularly shown hatched in red on city walkway variation plan CWVP-01-08 as “Area of existing City walkway to remain from declaration of City walkway 30 October 1986” **attached** hereto; and

at podium level at 99 Bishopsgate between the city walkway staircase on the southern side of Wormwood Street and the city walkway at podium level at 55 Bishopsgate more particularly shown in pink on city walkway declaration plan C.W.D.P.–1–98 **attached** hereto; and

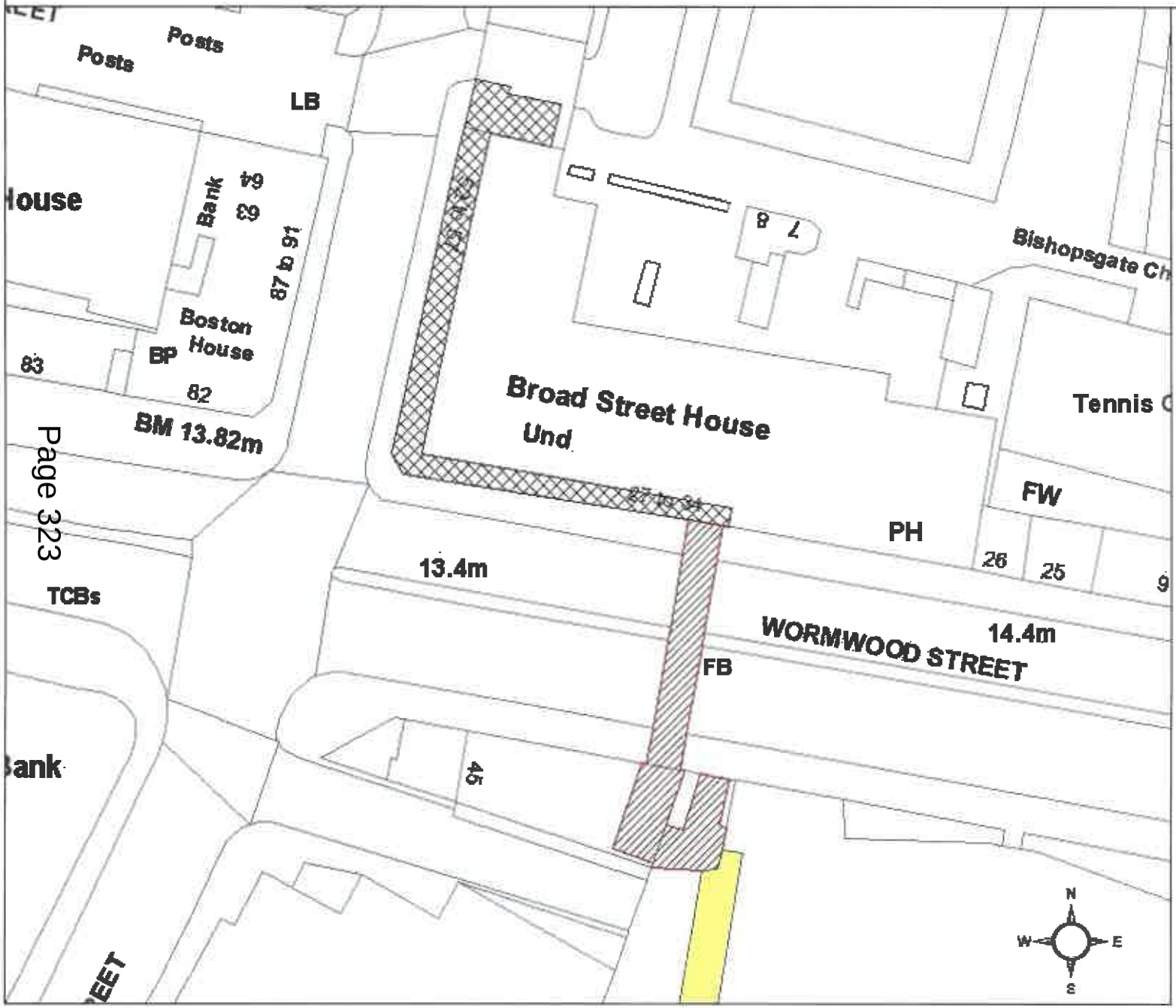
at podium level at 55 Bishopsgate between the city walkway at 99 Bishopsgate and the pavilion units at Tower 42 at 25 Old Broad Street more particularly shown in pink on city walkway declaration plan C.W.D.P.–2–98 **attached** hereto

Dated

THE COMMON SEAL OF THE MAYOR
AND COMMONALTY AND CITIZENS
OF THE CITY OF LONDON
was hereunto affixed in the presence of:

Authorized Officer
Guildhall
LONDON
EC2P 2EJ

# City Walkway Variation Plan




Area of existing City walkway to be discontinued from declaration of City walkway 30 October 1986 PLAN No. A1. W2-86-081

Area of existing City walkway to remain from declaration of City walkway 30 October 1986

Other City walkway currently remaining

ADDRESS: 55 Old Broad Street

DRAWING NUMBER: CWVP-01-08

DATE: 29/02/08

CITY of LONDON

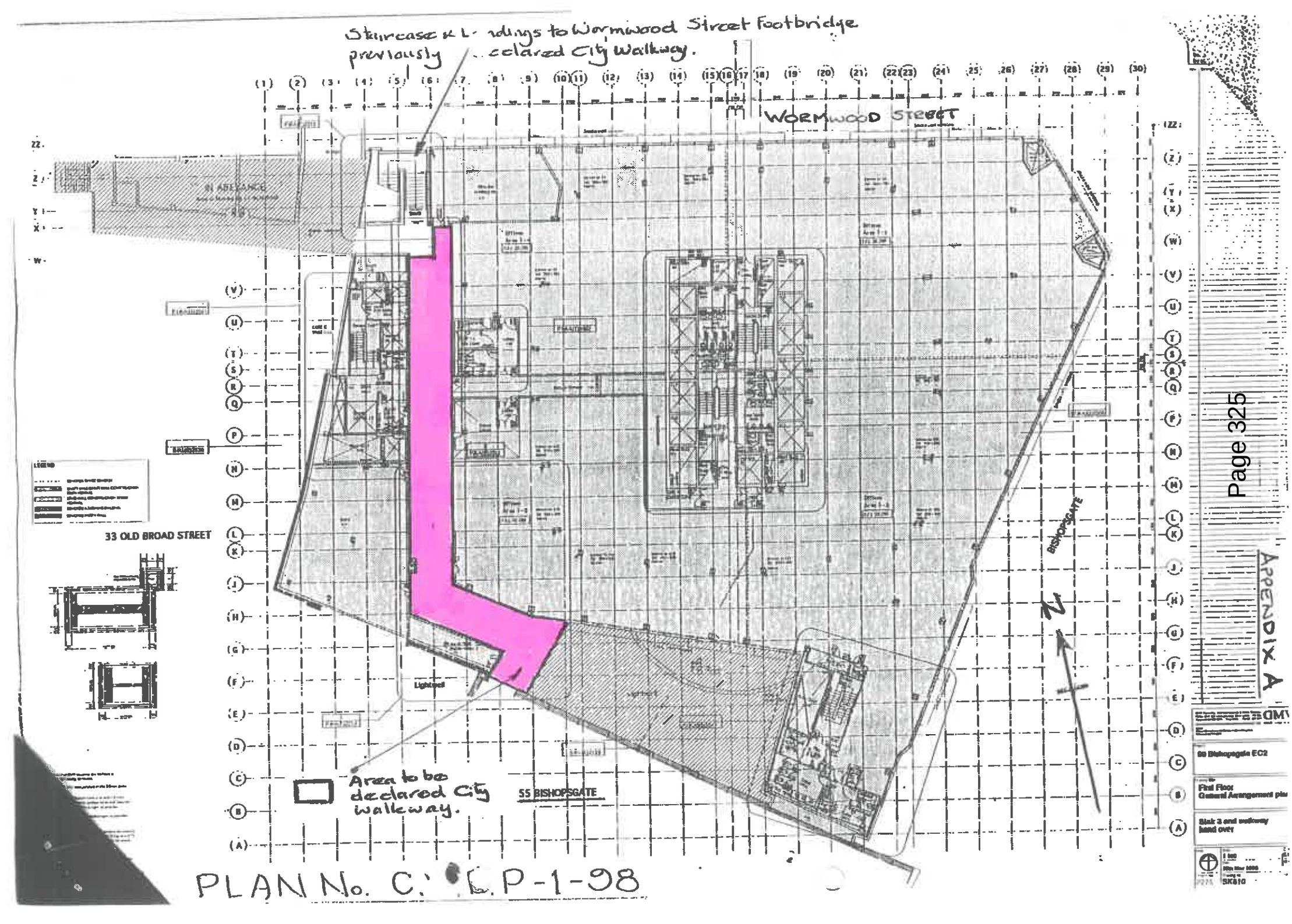
0 3 6 12 18 Meters

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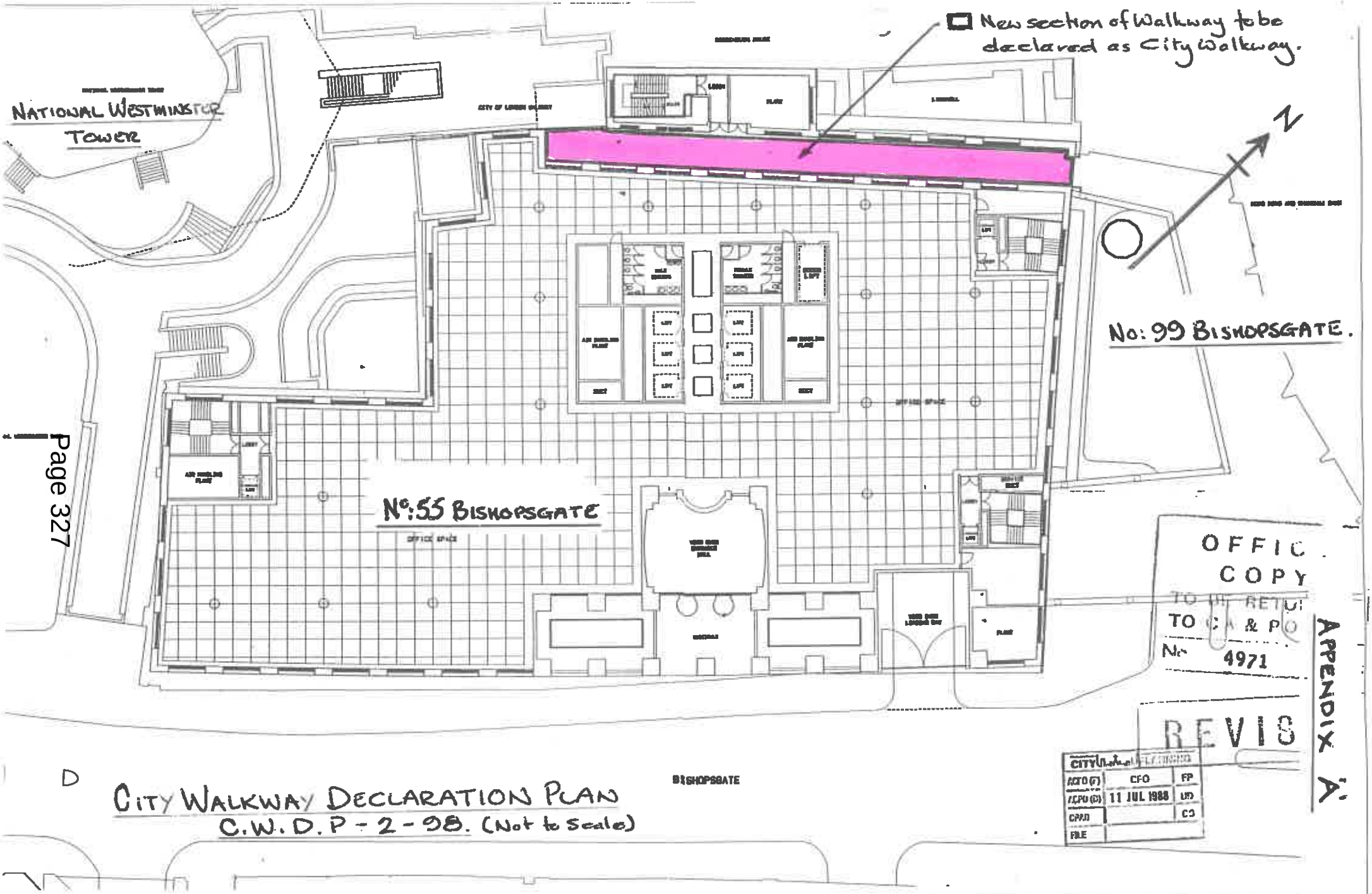


Appendix B

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Staircase & Landings to Wormwood Street Footbridge previously declared City Walkway.
WORMWOOD STREET
BISHOPSGATE
Area to be declared City walkway.
55 BISHOPSGATE
33 OLD BROAD STREET
APPENDIX A
Page 325
PLAN No. C.P-1-98

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# CITY WALKWAY DECLARATION PLAN
C.W.D.P - 2 - 88. (Not to Scale)



/55 BISHOPSGATE

FIRST FLOOR PLAN
1/200
2385/PL47

THE FITZROY ROBINSON PARTNERSHIP.

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| Committee(s) | Dated: |
|---|---|
| Streets and Walkways Committee for information<br>Planning and Transportation Committee for decision<br>Project Sub Committee for information<br>Policy and Resources Committee for information | 23/10/2018<br>30/10/2018<br>07/11/2018<br>15/11/2018 |
| **Subject:**<br>Review of projects within the Built Environment Directorate | **Public** |
| **Report of:**<br>Carolyn Dwyer, Director of the Built Environment | **For Decision** |
| **Report author:**<br>Simon Glynn, Assistant Director City Public Realm | |

**Summary**

This report sets out proposals for the review and prioritisation of transportation and public realm projects within the Department of the Built Environment (DBE) in order to best utilise available funds to deliver corporate priorities and future needs of a vibrant and thriving city.

Currently, the majority of funding for transportation and public realm projects is provided via Community Infrastructure Levy (CIL), Section 106, On-Street Parking Reserve and Section 278 contributions. Officers propose to review the Department's portfolio of projects to ensure resources are being focussed on the correct projects that deliver Corporate Plan aims and outcomes.

The Community Infrastructure Levy (CIL) has largely replaced S106 as a source of funding for DBE projects. Unlike S106 funding, CIL funding is not restricted geographically nor by purpose, provided it is used for delivering or improving infrastructure and addressing the demands that development places on an area. This flexibility means that CIL funding can be more easily pooled to deliver infrastructure changes City-wide.

As this allows more choice on how the funding can be utilised, it is essential to establish a consistent and transparent process to guide funding allocation decisions.

The City's Corporate Plan was adopted in mid-2018 with a greater focus on the outcomes and benefits that the Corporation's activities accrue. There is an opportunity to review Transportation and Public Realm Division's projects to ensure they are better aligned with the plan's aims and outcomes.

Over the past 10 years, the type of projects that the City has been delivering has evolved to include larger, more complex projects. This trend is likely to continue in support of the aspirations of the 'key areas of change' set out in the draft Local Plan and draft Transport Strategy. It is acknowledged that the City has ambitions to deliver major transformational projects over the next 10 years and its timely to conduct a review of our project portfolio to ensure DBE has sufficient funding and resources in place to plan effectively for change.

In the context of this changing funding and corporate policy environment, officers propose to undertake a review of current projects (within project gateways 1 to 4) and anticipated future projects, to ensure that projects are appropriately prioritised, making best use of available funds. In order to aid this process, an approach to prioritisation is set out in the main report. Subject to Members agreeing this approach, the following steps are proposed:

a) Officers will prepare a report for committees that will recommend which current projects are proposed to continue to completion, which may be reduced in scope and cost, and which are proposed to be stopped. Projects which already have Gateway 5 approval, and those which are solely funded by S278 or Transport for London (TfL), will continue to progress and are not subject to prioritisation.

b) A draft ten-year plan of future Transportation and Public Realm Division projects will be produced which will be divided into programmes and be presented to Members in a forthcoming report. This report will include forecasts of future CIL income which will provide members with an indication of available funding. This plan will be reviewed annually to ensure that it keeps pace with changing priorities.

**Recommendation(s)**

Members are asked to:

- Agree the project prioritisation approach outlined in this report
- Note that a forthcoming report will be brought to Committees in early 2019 which will outline a list of current projects to be continued, reduced in scope or stopped, for Members' approval
- Note that a ten-year plan of future prioritised projects,to be reviewed annually, will be appended to this forthcoming report
- Note those projects which have Gateway 5 approval, or are s278 or TfL funded, are outside the scope of this review.

## Main Report

### Background

Funding Environment

1. The Transportation and Public Realm Division has a project portfolio consisting of approximately 100 projects. Over the past 10 years the scale of projects that has been delivered has increased in size and complexity to address the needs of a vibrant and thriving City. The Planning Act 2008 introduced the Community Infrastructure Levy (CIL) and the City Corporation adopted its CIL in July 2014. A consequence of this new levy is that it largely replaces the obligations that were on developers to make S106 payments where it was considered that a new development had significant impact on the local environment.

2. This has brought about an important change in how funding may be used by the local authority. Whereas S106 funding is usually limited to a particular use or a geographic area in close proximity to the development under a legal agreement signed between the developer and the City Corporation, CIL funding may be used at the local authority's discretion across its district, or wider. It may also be used for a wider range of project types provided they are delivering improved local infrastructure. However, pursuant to the provisions of the City's current Regulation 123 List, enabling infrastructure improvements, or site-specific mitigation measures, required to make developments acceptable in planning terms will still need to be funded through s106 or s278 agreements.

3. Local authorities are required to set out the types of infrastructure, or specific projects, that will be funded through CIL in a Regulation 123 List which must be published. Public consultation is required for any amendments to this List, once adopted. In accordance with the report to Policy and Resources Committee in November 2013, 40% of City CIL receipts are allocated to the Planning and Transportation Committee to determine the use of this funding across a variety of public realm and local transport improvements (as set out in the City's Regulation 123 List).

4. This changing funding environment creates an opportunity to review the projects to be funded from these sources of income.

Policy Context

5. The Corporate Plan has recently been adopted and sets out three aims and 12 outcomes for the City with a greater focus on the outcomes and benefits that the Corporation's activities accrue. The main outcomes that the Transportation and Public Realm Division's portfolio must deliver against are:

- People are Safe and Feel Safe
- We are digitally and physically well connected and responsive
- We inspire enterprise, excellence, creativity and collaborative
- We have clean air, land and water and a thriving and sustainable natural environment
- Our spaces are secure, resilient and well-maintained.

6. The Local Plan was adopted in 2015 and is being revised to provide a framework for development up to 2036. The emerging Local Plan includes policy to guide 'key areas of change' and it is anticipated that these areas will both attract and require significant levels of change in development terms and in terms of local transportation and public realm. Consultation on a draft Local Plan will take place between November 2018 and February 2019. Within the agreed DBE Business Plan for 2018-19, a draft Transport Strategy will also be consulted upon during this same period.

7. This changing policy environment presents an opportunity to review Transportation and Public Realm projects to ensure they are better aligned with these plans' aims and outcomes.

**Proposal**

8. In the context of a changing funding and policy environment it is proposed to review the current Transportation and Public Realm Division's project portfolio to ensure that it is meeting the aims, outcomes and policies as set out in the Corporate Plan, Local Plan and DBE Business Plan.

9. Officers propose to prepare a report for Committees which will recommend which current projects continue to completion, which projects may be reduced in scope and cost, and which are to be stopped, using criteria based on this new policy context to inform these recommendations.

<u>Approach</u>

10. Officers are proposing to work with the Corporate Strategy team on mapping projects against the outcomes of the Corporate Plan and the other key strategies. Officers will review current and future projects against the following criteria:

- Corporate Plan: determining to what extent projects deliver against aims and outcomes of this, the Transport Strategy and the DBE Business plan (currently being revised):

- City of London Local Plan 2015 and Draft Local Plan - key areas of change. 'Keys areas of change' focus on those parts of the City where significant change is expected over the next 20 years and where Transportation and Public Realm changes are likely to be necessary.

11. The level at which the project will deliver against each of the outcomes will be defined thereby producing a ranking of all of the projects in the project portfolio. Officers will then undertake a scope and funding review and produce a 10 year plan. This will include factors such as the ability to reduce the scope of projects whilst still achieving key outcomes.

12. Prior to the second report being finalised a member briefing will be arranged.

Exclusions

13. Current projects which already have Gateway 5 approval, and those which are solely funded by S278 agreements or by TfL, are not proposed to be subject to this review. This is because Members have previously given authority to start work, or because the project funding source can only be used to deliver mitigation or enabling infrastructure relating to private development or used on activities agreed by TfL.

14. Highway structures, which are wholly funded by the Bridge House Estate, are also proposed to be beyond the scope of this review.

Projects at Gateway 'Zero'

15. Officers previously submitted an annual report to Committee which provided an update on the delivery of the Transportation and Public Realm Division's portfolio of projects and included a number of 'Gateway 0' projects that were a part of a pipeline of future projects. All projects which are at Gateway 0 will be closed in the *Project Vision* system as no spend to date has been incurred and they have not been fully initiated as projects.

Future Projects

16. Following the completion of the prioritisation exercise**,** officers are proposing to develop a 'ten-year plan' of future Transportation and Public Realm Division programmes and projects. This will show proposed spend per project and estimated funding using information from the Planning Division, in consultation with the Chamberlains Department. It is proposed that this is presented to Members in a forthcoming report and is reviewed annually to ensure that it keeps pace with changing priorities. This approach would also meet draft Government proposals to require local authorities to prepare annual *Infrastructure Funding Statements*, identifying how CIL will be used.

## Corporate & Strategic Implications

17. Regard has been given to the Corporate Plan and the Service Business Plan in developing the proposed approach. The main outcomes in the Corporate Plan that the Transportation and Public Realm Division's portfolio will deliver against are:

- Outcome 1 - People are Safe and Feel Safe
- Outcome 9 - We are digitally and physically well connected and responsive
- Outcome 10 - We inspire enterprise, excellence, creativity and collaborative
- Outcome 11 - We have clean air, land and water and a thriving and sustainable natural environment
- Outcome 12 - Our spaces are secure, resilient and well-maintained.

18. The proposed approach takes account of the proposed Key Areas of Change in the draft Local Plan and proposals in the draft Transport Strategy.

## Financial Implications

19. It is acknowledged that the City has ambitions to deliver major transformational projects over the next 10 years and its timely to conduct a review of our project portfolio to ensure we have sufficient funding and resources in place to plan effectively for change.

## Legal Implications

20. Any S106 payments made and held for specific purposes will be spent on the purposes for which they are held or to address the impacts of specific developments, in accordance with the City's obligations under the relevant S106 Agreements.

21. The methodology for prioritisation will need to respect the S106 covenants placed on the City in relation to the use of this funding. As a result of the proposed review, any changes regarding how such funds are to be expended must still ensure the funding is used for projects which address the impacts of the development that generated the funds unless these agreements are specifically re-negotiated with the relevant parties.

## Conclusion

22. In the context of a changing funding and policy environment it is proposed to review the current Transportation and Public Realm Division's project

portfolio to ensure that it is meeting the aims, outcomes and policies as set out in the Corporate Plan and the City's Local Plan.

23. Officers propose to prepare a report for Committees which will recommend which live projects continue to completion, which projects may be reduced in scope and cost, and which are to be stopped, using criteria based on this new policy context to inform these recommendations. Members are asked to approve the proposed approach and next steps outlined in the recommendations in this report.

**Simon Glynn – Assistant Director: City Public Realm**

E: simon.glynn@cityoflondon.gov.uk]

T: 0207 332 1095

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| Committee(s) | Dated: |
|---|---|
| Summit Group<br><br>Policy and Resources Committee – for decision<br><br>Planning and Transportation Committee – for information | 26/09/18<br><br>15/11/18<br><br>20/11/18 |
| **Subject:**<br>City Corporation's Proposed Approach to Carbon Offsetting | **Public** |
| **Report of:**<br>Carolyn Dwyer – Director of the Built Environment | **For information** |
| **Report author:**<br>Janet Laban - Department of the Built Environment | |


**Summary**

The Corporate Plan commits the City to "Provide a clean environment and drive down the negative effects of our own activities" as part of a longer term aim to move to a Zero Carbon Emissions City. Development within the City provides opportunities for carbon emission reductions in new buildings or off-setting contributions where this is impractical on-site. The purpose of this report is to set out the City Corporation's approach to the collection and allocation of carbon offsetting contributions associated with development in the City, which will assist in the move to a Zero Emissions City.

The London Plan and the City's Local Plan set targets for carbon emission reduction through development relative to Building Regulations requirements. A carbon offsetting contribution is payable where development is unable to meet these carbon emission reduction targets on site. It is estimated that through carbon offsetting more than £2.3 million will be available over 5 -7 years on completion of developments that have already been granted planning permission. Contributions are likely to increase due to tightening of the London Plan policy from 2019 when all development will need to be zero carbon. The current cost of carbon is set at £60 per tonne and will increase to £95 per tonne in 2019 in line with draft London Plan recommendations.

Carbon offset funds received will be used to deliver reductions in carbon emissions from retrofitting measures in publicly owned operational buildings (i.e. excluding "investment properties") where those measures provide additional carbon emission reductions that would not otherwise be achieved. The range of projects is identified in Appendix 3. Project approval will be through the Corporate Projects procedure. Funds will be pooled and ring fenced for carbon reduction projects as defined in the Planning Obligations Supplementary Planning Document (SPD). The Built Environment Department will oversee administration, evaluation and monitoring of carbon-offsetting contributions. The City Surveyors' Energy Team will manage implementation of carbon reduction projects.

## Recommendations

Members are recommended to

- Approve the proposed approach to carbon offsetting for the City.

## Main Report

### Background

1. Buildings are responsible for over 76% of the carbon emissions within London[1] with commercial buildings responsible for most emissions in the City[2].

2. Redevelopment presents an opportunity to improve the energy and carbon performance of individual buildings and the City as a whole. Adopted planning policies in the London Plan and City of London Local Plan aim to secure carbon reduction, moving towards zero carbon buildings from 2019.

3. For new development, where developers are unable to meet London Plan carbon reduction targets on-site, the shortfall can be accounted for through a carbon offsetting financial contribution to the relevant borough which is secured through a S106 agreement.

4. The City Corporation has set up a "Carbon Fund" to receive offsetting payments. The London Plan requires that offsetting payments must be ring fenced to implement carbon reduction projects elsewhere. The Mayor of London's Sustainable Design and Construction Supplementary Planning Guidance states that "it is essential that boroughs identify a suitable range of projects that can be funded through the carbon dioxide off-set fund" (paragraph 2.5.18) and that "preference should be given to retrofitting publicly owned property as this would provide wider community benefit" (paragraph 2.5.19)

### Current Position

5. The City of London Local Plan requires carbon offsetting contributions on major development, where the energy strategy shows that the development will be unable to meet the London Plan carbon targets. The London Plan requires residential development to be zero carbon and non-domestic development to achieve a 35% improvement over the current Building Regulations Part L requirements. Any shortfall is offset through a financial contribution which is secured through a S106 agreement and is payable to the local authority. In the City, this payment is due on completion of the development.

6. The carbon offsetting contribution is set to increase due to the adopted London Plan requirement for all development (residential and non-residential) to meet zero carbon standards from 2019. In addition, the GLA's proposed cost of carbon is set to rise from £60 per tonne to £95 per tonne from 2019 when the draft London Plan is adopted. Viability testing of the draft London Plan indicates that

[1] https://www.london.gov.uk/sites/default/files/london_environment_strategy.pdf

[2] https://www.cityoflondon.gov.uk/services/environment-and-planning/sustainability/Documents/zero-emissions-city-2018.pdf

zero carbon requirements would not impact adversely on the viability of development.

7. The carbon offsetting contribution is calculated using the following formula:

   Carbon Off Set Contribution = (T- R) ×Y×Z

   Where:
   T is the target reduction in carbon dioxide emissions (tonnes $CO_2$)
   R is the actual reduction in carbon dioxide emissions (tonnes $CO_2$)
   Y is the number of years for which the contribution is payable, being 30 years
   Z is the cost of carbon per tonne taken from the Mayor's Sustainable Design & Construction SPG (paragraph 2.5.12) being £60 per tonne of carbon dioxide

   Further detail on the policy requirements for carbon offsetting and an example calculation is detailed in Appendix 1.

8. Several carbon offsetting agreements are already in place with an estimated total income of £ 2.3 million projected from developments in the pipeline. Over £1million is projected by 2020 from developments that are already under construction. The remainder will be paid on completion of development up to 2023. Appendix 2 shows the projected carbon offsetting contributions from the development pipeline.

**Options**

9. In managing the carbon offsetting process there are several options which will influence the effectiveness of the fund in reducing the City's building-related carbon emissions. These include variation in the price of carbon, whether carbon equivalence is required for offsetting projects, types of carbon reduction projects eligible for funding and project sponsors. Different options for governance, allocation, administration and monitoring of the carbon offsetting fund have also been considered. The preferred approach is outlined below:

10. **Carbon price per tonne.** The price per tonne of carbon must be set at a rate that will not adversely affect the viability of development whilst providing sufficient funding for carbon reduction projects. Setting too low a price would risk developers opting to pay rather than improve carbon performance on site and might not provide sufficient funds for effective carbon reduction elsewhere.

11. The City's current carbon price of £60 per tonne is expected to rise in line with proposals in the draft New London Plan to £95 per tonne in 2019. This figure has been subject to viability testing as part of the London Plan review and found not to adversely impact on the viability of development London-wide.

12. **Carbon equivalence**. The London Plan requires that the carbon offsetting contribution must be ring fenced to deliver carbon reduction elsewhere. There is no requirement to deliver equivalent carbon savings to offset the development's shortfall over a 30-year period (known as carbon equivalence).

13. The City's Carbon Fund will be used for a range of projects without guaranteeing carbon equivalence. However, projects with the highest rate of carbon reduction per pound spent will be prioritised.

14. **Building related projects or wider project base.** Carbon reduction projects funded through financial contributions must provide additionality (emissions reductions that would not have occurred in the absence of the contribution). LED street lighting, tree planting, electric charging points and improvements in the energy efficiency of buildings are all project options. To minimise the City's total emissions from its building stock, building related projects should be prioritised. Building related carbon emissions are reflected in national statistics[3] whereas carbon reduction for other sources is not.

15. The City Carbon Fund will focus on carbon reduction projects in the City Corporation's operational buildings thus reducing the City's total building related carbon emissions.

16. **Project sponsor** – in administering the carbon offset fund the City Corporation could consider bids for funding from a range of different organisations, public, private and third sector. The administrative costs associated with processing bids and ensuring compliance with regulatory requirements would be disproportionate to the levels of funding available in the initial phase. Funding bids from other organisations may be considered in the future. A review of carbon offsetting approaches across all London Boroughs carried out for the GLA[4] found that at the time of the review only 7 boroughs had spent any offsetting funds on projects. Of those boroughs that identified projects the majority listed public or community buildings. This is consistent with advice in the Mayor of London's Sustainable Design and Construction Supplementary Guidance that preference should be given to publicly owned property where wider community benefit can be achieved. It is important to ensure that the funds can be spent as efficiently as possible to avoid disproportionate administration costs and to ensure that they do not have to be repaid under the S.106 Agreement terms

17. Therefore, the City Carbon Fund will initially be spent on carbon reduction projects for City Corporation owned operational buildings.

18. **Funding allocation** Analysis shows that carbon offsetting contributions could yield up to £2.3 million on completion of developments which are currently in the planning pipeline. This level of contributions is likely to increase from 2019. Allocation of this funding must follow an open and transparent process.

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[3] https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016

[4] National Energy Foundation "Review of Carbon Offsetting Approaches in London" 1 June 2016

19. The City Carbon Fund will be used for carbon reduction projects on City Corporation owned properties (excluding investment properties) where the widest community benefit can be achieved and where measures will deliver carbon reductions additional to those which could otherwise be achieved. The projects will be proposed by the City Surveyor's Corporate Energy Team, within the range identified in Appendix 3, with a capital spend of over £50,000, and considered through the Corporate Projects procedure. The focus on buildings in the City accords with Mayoral advice and will bring local benefits that will be recognised in national monitoring programmes which are published at local authority level associated with residential, commercial and transport carbon emissions. In addition, the City Corporation will continue to address climate change issues in other ways such as its management of open spaces and trees which absorb carbon.

20. **Administration, evaluation and monitoring**. The administration, evaluation and financial and carbon monitoring for the City's Carbon Fund will require additional resource. Administration costs are required from developers to cover the costs incurred in drawing up s106 obligations and monitoring costs are secured for the review of submitted documents. These funds would cover planning officer's administration and monitoring of the City Carbon Fund including publication of an annual monitoring report. Monies will be drawn on as additional duties emerge and periodically reviewed. Project evaluation and implementation costs will be included in the project proposal.

21. The City's building and transport related carbon emissions are published annually by BEIS at local authority level. The use of carbon offsetting funds to benefit the carbon performance of local building stock will be reflected in this Government monitoring. Other options which focus on projects outside the City or non-building related projects such as additional tree planting would also bring benefits, but these would not be reflected in such monitoring. This report therefore proposes that building related projects within the City are prioritised, thereby reinforcing the drive to a more energy resilient, low carbon City. This is in line with the Mayor's Sustainable Design and Construction Supplementary Planning Guidance which states that in spending the carbon offsetting fund "Preference should be given to retrofitting publicly owned property as this would provide wider community benefit."

22. Annual reviews will evaluate the effectiveness of this approach. As the level of funding available through the City Carbon Fund increases this approach will be reassessed to consider a wider range of sponsors and projects.

**Proposals**

23. Carbon offsetting provides an opportunity to accelerate the City's progress towards achieving zero carbon and becoming a Zero Emissions City, through suitable investment in carbon reduction projects in the City's buildings. The preferred options outlined in the previous section provide the basis for management of this source of funding to deliver the most effective contribution to carbon reduction in the City.

24. Where major development cannot meet London Plan or City Local Plan carbon reduction targets on-site, contributions to the City Carbon Fund will be secured through S106 agreements. Contributions to the City Carbon Fund will be pooled and ringfenced for carbon reduction projects which improve the carbon performance of publicly owned buildings within the range identified at Appendix 3. Approval of suitable projects will be through the Corporate Projects Gateway Approvals process and monitoring will ensure that the City Carbon Fund is appropriately managed, contributing to the City's pathway to zero carbon.

**Corporate & Strategic Implications**

25. The Corporate Plan 2018-23 includes the aspiration to positively impact people and the environment by championing responsible practices to improve economic, social and environmental outcomes. This proposal will improve the environmental outcomes for the City and has the potential to improve social outcomes depending on the nature of the projects funded.

26. The City of London Responsible Business Strategy commits the City to implementation of a carbon offsetting scheme to invest in carbon reduction projects through the City Carbon Fund.

**Implications**

27. Carbon offsetting provides a new funding source for carbon reduction projects but will need to be managed effectively and transparently.

28. Under current London Plan policy and carbon price (£60) the City Carbon Fund is set to receive £2.3 million on completion of developments that are already in the planning pipeline. The carbon price is set to rise to £95 per tonne in 2019.

29. The draft London Plan proposes that all developments should be zero carbon from 2019. This compares with the current requirement for a 35% reduction in carbon emissions compared with the 2013 Building Regulations. Under current policy a development with a 31% reduction (a 4% shortfall) would have to make a carbon offsetting payment of £14,500; under a zero-carbon requirement, this payment would increase to £234,000. Viability testing of the draft London Plan indicates that zero carbon requirements would not impact adversely on the viability of development.

30. The City Carbon Fund will initially be relatively small, it could potentially provide substantial funding for carbon reduction projects in the City in future years.

**Health Implications**

31. The proposals outlined in this report do not have immediate health implications however failure to reduce global carbon emissions could have catastrophic health consequences for some parts of the world. The implementation of this report will assist in the move to a Zero Emissions City.

## Conclusion

32. Carbon targets and carbon offsetting provide a means of accelerating carbon reduction through development in the City. This report outlines the City Corporation's proposed approach to carbon offsetting, sets out the parameters for the allocation of funds and the implementation of carbon reduction projects and proposes a governance structure for this funding stream.

## Appendices

- Appendix 1 – Policy background and carbon offsetting calculations
- Appendix 2 – Development pipeline-estimated carbon offsetting contributions
- Appendix 3 - Indicative list of carbon reduction projects

**Janet Laban**
Senior Sustainability Planner – Department of the Built Environment
T: 020 7332 1148 Email: janet.laban@cityoflondon.gov.uk

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## Appendix 1 Policy background and example carbon offsetting calculations

### 1) Policy Background

### 1.1 London Plan

The carbon targets to which offsetting applies derive from the London Plan 2016

London Plan Policy 5.2 - Minimising carbon dioxide emissions

Planning decisions

A. Development proposals should make the fullest contribution to minimising carbon dioxide emissions in accordance with the following energy hierarchy:

1. Be lean: use less energy
2. Be clean: supply energy efficiently
3. Be green: use renewable energy

B. The Mayor will work with boroughs and developers to ensure that major developments meet the following targets for carbon dioxide emissions reduction in buildings. These targets are expressed as minimum improvements over the Target Emission Rate (TER) outlined in the national Building Regulations leading to zero carbon residential buildings from 2016 and zero carbon non-domestic buildings from 2019

**Residential buildings:**

| Year | Improvement on 2010 Building Regulations |
|---|---|
| 2010 – 2013 | 25 per cent (Code for Sustainable Homes level 4) |
| 2013 – 2016 | 40 per cent |
| 2016 – 2031 | Zero carbon |

**Non-domestic buildings:**

| Year | Improvement on 2010 Building Regulations |
|---|---|
| 2010 – 2013 | 25 per cent |
| 2013 – 2016 | 40 per cent |
| 2016 – 2019 | As per building regulations requirements |
| 2019 – 2031 | Zero carbon |

C. Major development proposals should include a detailed energy assessment to demonstrate how the targets for carbon dioxide emissions reduction outlined above are to be met within the framework of the energy hierarchy

D. As a minimum, energy assessments should include the following details:

a) calculation of the energy demand and carbon dioxide emissions covered by the Building Regulations and, separately, the energy demand and carbon dioxide emissions from any other part of the development, including plant or equipment, that are not covered by the Building Regulations (see paragraph 5.22) at each stage of the energy hierarchy

b) proposals to reduce carbon dioxide emissions through the energy efficient design of the site, buildings and services

c) proposals to further reduce carbon dioxide emissions through the use of decentralised energy where feasible, such as district heating and cooling and combined heat and power (CHP)

d) proposals to further reduce carbon dioxide emissions through the use of on-site renewable energy technologies.

E. The carbon dioxide reduction targets should be met on-site. Where it is clearly demonstrated that the specific targets cannot be fully achieved on-site, any shortfall may be provided off-site or through a cash in lieu contribution to the relevant borough to be ring fenced to secure delivery of carbon dioxide savings elsewhere.

These targets are enforced through planning obligations, on a borough by borough basis, and the most common clause in the City's present S106 agreements is the 35% improvement on the 2013 Part L Building Regulations (which is broadly equivalent to a 40% reduction on the 2010 Part L Building Regulations – see Mayor's Sustainable Design & Construction SPG).

The London Plan is under review with the draft New London Plan Policy SI2 *Minimising Greenhouse Gas Emissions* continuing with the requirement for all major development to be zero carbon.

### 1.2 City of London Local Plan 2015

The City Local Plan reiterates the requirement to offset carbon emissions where carbon targets cannot be met on site.

**Policy DM 15.2 Energy and $CO_2$ emissions assessments**

1. Development design must take account of location, building orientation, internal layouts and landscaping to reduce likely energy consumption.
2. For all major development energy assessments must be submitted with the application demonstrating:

- energy efficiency – showing the maximum improvement over current Building Regulations to achieve the required Fabric Energy Efficiency Standards;
- carbon compliance levels required to meet national targets for zero carbon development using low and zero carbon technologies, where feasible;
- where on-site carbon emission reduction is unviable, offsetting of residual $CO_2$ emissions through 'allowable solutions' for the lifetime of the building to achieve national targets for zero-carbon homes and non-domestic buildings. Achievement of zero carbon buildings in advance of national target dates will be encouraged;
- anticipated residual power loads and routes for supply.

## 2) Example Carbon Offsetting S106 agreement

Where carbon offsetting is required this is secured through S106 agreement. An example S106 carbon offsetting clause is included below:

*CARBON OFF-SETTING*

*1 The Developer shall:*

*1.1 pay the Carbon Off-set Contribution (as specified in paragraph 1.2 of this Schedule 3) calculated in accordance with the following formula:*

*Carbon Off-set Contribution = (T – R) x Y x Z*

*Where T is the target reduction ("the Target Reduction") in the amount of carbon dioxide (expressed in tonnes) which reflects 35% of the New Build / Development's annual carbon dioxide emissions if constructed in accordance with the 2013 Building Regulations*

*R is the reduction in the amount of carbon dioxide (expressed in tonnes) which reflects the reduction in the Development's annual carbon dioxide emissions (when compared to the annual carbon dioxide emissions if constructed in accordance with the Building Regulations) which it is calculated will be achieved by the implementation of carbon reduction measures as determined by reference to the Energy Statement submitted to the City Corporation pursuant to the Application OR (in the event that a subsequent revised assessment of carbon dioxide emissions of the completed New Build / Development is provided pursuant to paragraph 1.2) by reference to that subsequent revised assessment*

*Y is the number of years for which the contribution is payable, being 30 years*

*Z is the cost of carbon per tonne taken from the Mayor's draft Sustainable Design & Construction SPG (paragraph 2.4.39) being £60 per tonne of carbon dioxide*

*and provided that the Carbon Off-set Contribution may be zero (or if negative shall be deemed to be zero).*

*1.2 Following the Completion Date but prior to Occupation the Developer shall confirm that the Energy Statement has been implemented and submit to the City Corporation an assessment of the carbon dioxide emissions of the completed Development so as to calculate the reduction in the amount of carbon dioxide (expressed in tonnes) which reflects the Development's annual carbon dioxide emissions which it is calculated will be achieved by the implementation of carbon reduction measures ("R" in the formula in paragraph 1.1).*

*1.3 In the event of a shortfall in the Target Reduction, the Developer will calculate the amount of Carbon Off-set Contribution referable to the said shortfall in accordance with the formula in paragraph 1.2 and shall pay the Carbon Off Set Contribution as follows:*

*1.4 to the City Corporation to be paid into the City of London Carbon Off-set Scheme no later than eight (8) weeks following Completion of the Development (as notified to the City Corporation pursuant to clause 17.5); or*

*11.5 evidence that the payment has been made shall be provided to the City Corporation within eight (8) weeks of the payment being made.*

### 3) Example Calculation of the Carbon Offsetting contribution

The City Corporation has set up a carbon offsetting payment calculator to use a BRUKL report, submitted on completion of the development, to discharge the carbon offsetting obligation. This is the easiest and most straightforward way to check how much carbon is required to be offset.

| | A | B | C | D |
|---|---|---|---|---|
| 1 | **Carbon Offsetting Payment Calculator** | | | |
| 2 | **BRUKL Report:** | | | |
| 3 | Application Ref: | | | |
| 4 | Date of report (as designed): | | | |
| 5 | Date of report (as constructed): | | | |
| 6 | | | | |
| 7 | **Actual Area (m2)** | | | |
| 8 | **Target CO2 emission rate (TER) kgCO2/m2.annum** | | | |
| 9 | **Building CO2 emission rate(BER) kgCO2/m2. annum)** | | | |
| 10 | **Target Reduction** | **35%** | | |
| 11 | | | | |
| 12 | **Emissions Baseline as per Part L 2013 Building Regulations** | - | tonnes CO2 per annum | |
| 13 | **Target Emissions Reduction** | - | tonnes CO2 per annum | |
| 14 | **Acutal Emissions Reduction** | - | tonnes CO2 per annum | |
| 15 | **Carbon Surplus/Shortfall** | - | tonnes CO2 per annum | |
| 16 | **Overall Reduction** | #DIV/0! | | |
| 17 | **Shortfall/surplus** | #DIV/0! | | |
| 18 | **Carbon Offsetting Contribution** | **£ -** | | |
| 19 | | | | |

## BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

**Project name**

**15 Bishopsgate** — As designed

**Date:** Mon Dec 08 21:25:11 2014

**Administrative information**

**Building Details**
**Address:** ,

**Certification tool**
**Calculation engine:** TAS
**Calculation engine version:** "v9.3"
**Interface to calculation engine:** TAS
**Interface to calculation engine version:** v9.3
**BRUKL compliance check version:** v5.2.d.2

**Owner Details**
**Name:**
**Telephone number:**
**Address:** , ,

**Certifier details**
**Name:** Mautasimuddin Altamash Mohammed
**Telephone number:**
**Address:** , ,

**Criterion 1: The calculated $CO_2$ emission rate for the building should not exceed the target**

| | |
|---|---|
| $CO_2$ emission rate from the notional building, $kgCO_2/m^2.annum$ | 23.6 |
| Target $CO_2$ emission rate (TER), $kgCO_2/m^2.annum$ | 23.6 |
| Building $CO_2$ emission rate (BER), $kgCO_2/m^2.annum$ | 16.3 |
| Are emissions from the building less than or equal to the target? | BER =< TER |
| Are as built details the same as used in the BER calculations? | Separate submission |

The floor area (m2) can be found in the technical data section of the BRUKL report.

## Technical Data Sheet (Actual vs. Notional Building)

### Building Global Parameters

| | Actual | Notional |
|---|---|---|
| Area [m²] | 8326 | 8326 |
| External area [m²] | 6443 | 6443 |
| Weather | LON | LON |
| Infiltration [m³/hm²@ 50Pa] | 5 | 3 |
| Average conductance [W/K] | 3230 | 2789 |
| Average U-value [W/m²K] | 0.5 | 0.43 |
| Alpha value* [%] | 6.62 | 6.62 |

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

### Building Use

| % Area | Building Type |
|---|---|
| 8 | **A1/A2 Retail/Financial and Professional services** |
| | A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways |
| 92 | **B1 Offices and Workshop businesses** |
| | B2 to B7 General Industrial and Special Industrial Groups |
| | B8 Storage or Distribution |
| | C1 Hotels |
| | C2 Residential Inst.: Hospitals and Care Homes |
| | C2 Residential Inst.: Residential schools |
| | C2 Residential Inst.: Universities and colleges |
| | C2A Secure Residential Inst. |
| | Residential spaces |
| | D1 Non-residential Inst.: Community/Day Centre |
| | D1 Non-residential Inst.: Libraries, Museums, and Galleries |
| | D1 Non-residential Inst.: Education |
| | D1 Non-residential Inst.: Primary Health Care Building |
| | D1 Non-residential Inst.: Crown and County Courts |
| | D2 General Assembly and Leisure, Night Clubs and Theatres |
| | Others: Passenger terminals |
| | Others: Emergency services |
| | Others: Miscellaneous 24hr activities |
| | Others: Car Parks 24 hrs |
| | Others - Stand alone utility block |

When these values have been entered – the carbon calculator will work out the charge, and how much carbon shortfall/surplus there is.

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | **Carbon Offsetting Payment Calculator** | | | | |
| 2 | **BRUKL Report:** | 15 Bishopsgate | | | |
| 3 | Application Ref: | 14/01251/FULMAJ | | | |
| 4 | Date of report (as designed): | Dec 8th 2014 | | | |
| 5 | Date of report (as constructed): | | | | |
| 6 | | | | | |
| 7 | **Actual Area (m2)** | 8,326.00 | | | |
| 8 | **Target CO2 emission rate (TER) kgCO2/m2.annum** | 23.60 | | | |
| 9 | **Building CO2 emission rate(BER) kgCO2/m2. annum)** | 16.30 | | | |
| 10 | **Target Reduction** | **35%** | | | |
| 11 | | | | | |
| 12 | **Emissions Baseline as per Part L 2013 Building Regulations** | 196.49 | tonnes CO2 per annum | | |
| 13 | **Target Emissions Reduction** | 68.77 | tonnes CO2 per annum | | |
| 14 | **Acutal Emissions Reduction** | 60.78 | tonnes CO2 per annum | | |
| 15 | **Carbon Surplus/Shortfall** | 7.99 | tonnes CO2 per annum | | |
| 16 | **Overall Reduction** | 30.93% | | | |
| 17 | **Shortfall/surplus** | 4.07% | | | |
| 18 | **Carbon Offsetting Contribution** | **£ 14,382.00** | | | |
| 19 | | | | | |

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## Appendix 2 Development Pipeline – estimated carbon offsetting contributions

### Section 106 Pipeline

The City has been charging for carbon off-setting since 2014 and as a result the City has approximately 30 section 106 agreements signed with the relevant clause, that are likely to result in a financial contribution for failing to meet targets on site. A high-level estimate using submitted energy statements predicts an approximate £2.3 million worth of carbon offsetting contributions in the pipeline. Since the payment is due on completion of the development there is a lag between the granting of planning approval and the collection of offsetting contributions.

### Predicted Contributions

Figure 1 shows an estimate of the potential carbon offsetting contributions from developments which are already approved with an S106 agreement on carbon offsetting.

Given the complexity of the assessment process and the uncertainty around what is potentially payable and when, this table attempts to forecast the amounts of carbon offsetting payments currently in the pipeline.  It's important to stress that these figures need to be validated again as part of the discharge of planning obligations, however this information can be used as a good starting point to work out how to tackle the use of these funds in the short, medium and long term.

NB: All payments and timescales are liable to change until practical completion and submission of final energy statement.

## Figure 1 Potential Carbon offsetting contributions June 2018

| Scheme | Application # | Timeline | Amount | Action | |
|---|---|---|---|---|---|
| 15 Bishopsgate | 14/01251/FULL | Completed | £ 14,382 | | PAID |
| 20 Farringdon Street | 15/00509/FULMAJ | Permission implemented Feb 2016 - completion likely late 2018 | £ 26,550 | | Short Term Cumulative Payment due August 2018 |
| 2-6 Cannon Street | 14/00780/FULMAJ | Implemented completion expected mid 2018 | £ 50,886 | | Short Term Cumalative payment due late 2018 |
| Walsingham House | 14/01226/FULMAJ | Intended Completion30 October 2018 | £ 11,700 | | Short Term Cumalative payment due Later 2018 |
| 100 Liverpool Street | 15/01387/FULEIA & 17/00276/FULL | Commenced, implementation Sept 2017 Completion 2018/19 | £ 90,450 | | |
| 90 Fetter Lane | 16/00299/FULMAJ | Completion 25 June 2018 | £ 14,760 | | |
| 76-86 Fenchurch Street | 08/00824/FULEIA and 15/00702/FULMAJ (s73) | Commenced August 2015 - completion unknown | £ 171,900 | | |
| 56-60 and 62-64 Moorgate | 15/01312/FULMAJ | Commencing September 2017 - completion forcast for 2019 | £ 32,922 | | |
| 60 London Wall | 16/00776/FULMAJ | Commenced August 2017 - completion unknown | £ - | | **47% reduction as designed** |
| 22 Bishopsgate | 16/00849/FULEIA | Commenced | £ 626,832 | | |
| Bernard Morgan House 40 Golden Lane | 16/00590/FULL | Commenced October 2017 | | | 54% reduction as designedZero Carbon Homes Conditioned |
| 35 Vine Street Emperor House | 17/00239/FULMAJ | Commencemetn January 2018 | £ 121,842 | | |
| 55 Moorgate | 16/00405/FULMAJ | Implementation Aug 2018 | £ - | | **59.77% reduction as designed** |
| Fleet House 8-12 New Bridge Street | 14/00254/FULMAJ | Not commenced. Date Unknown | £ 29,925 | | |
| 10 King William Street/Bank Station Upgrade | 14/00178/FULEIA | 2020/2021 | £ 35,880 | | |
| 63-66 Coleman Street | 14/00887/FULMAJ and 16/01010/FULL | Later application pending, long term horizon | £ 5,040 | | |
| 6-8 Bishopsgate | 15/00443/FULLEIA and 17/00447/FULLEIA (Pending) | Pending new application - completion estimated 2022 | £ 196,200 | | |
| Fountain House 130 Fenchurch Street | 14/00496/FULMAJ and 16/00809/FULMAJ (Pending) | Permission pending. Old one not started. Completion Post 2020 | £ 32,202 | | Long Term Cumulative Paid after 2020 |
| Garrard House 31 Gresham Street | 17/00585/FULMAJ | | £ 15,444 | | |
| 1 Leadenhall Street Leadenhall Court | 16/00859/FULEIA | | £ 20,124 | | |
| Creed Court | 14/00300/FULMAJ | Implemented July 2018 | £ - | | **38.2% reduction as designed** |
| Tresury Building Inner Temple | 17/00077/FULMAJ | | £ - | | **38.97% reduction as designed and proposed** |
| 2-3 Finsbury Avenue | 16/00149/FULEIA | | £ 792,738 | | |
| 31 Gresham Street Garrard House | 17/00585/FULMAJ | | £ 15,444 | | |
| 2 Seething Lane | 17/00980/FULMAJ | | | | **No Information** |
| 21 Moorfields | 17/01095/FULEIA | | | | **36.49% reduction as designed** |
| 150 Fenchurch Street | 16/00345/FULMAJ | Not commenced. Date Unknown | £ 7,830 | | |
| TOTAL | | | £ 2,313,051 | | |
| Key | | | | | |
| | Short term - payment expected by end 2018 | | | | |
| | Medium term - development commenced payment due on completion | | | | |
| | Long Term - development not yet commenced | | | | |

**Appendix 3 Indicative list of carbon reduction projects**

Carbon offset funds will be used to deliver reductions in carbon emissions from retrofitting measures in publicly owned operational buildings (i.e. excluding “investment properties”) where those measures provide additional carbon emission reductions that would not otherwise be achieved. Project approval will be through the Corporate Projects procedure. Funds will be pooled, and ring fenced for carbon reduction projects as defined in the Planning Obligations Supplementary Planning Document (SPD). The City Surveyors’ Energy Team will manage implementation of carbon reduction projects.

Table 1 provides an indicative list of the types of projects which would be eligible for funding. A pipeline of projects will be maintained by the City Surveyor’s energy team

Table 1 Indicative list of carbon reduction projects.

| Project | **Capital Cost (£)** | **Savings (tCO2e/year)** |
|---|---:|---:|
| LED Lighting upgrades (number of sites) | £226,491 | 134 |
| Cooling plant upgrade (single site) | £1,000,000 | 166 |
| Pumps/Fans demand control (number of sites) | £118,032 | 103 |
| Efficient ventilation fans and motors (number of sites) | £141,951 | 114 |
| Swimming pool plant upgrades (single site) | £156,400 | 98 |
| Solar PV (single site) | £141,220 | 33 |

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| Committee(s) | Dated: |
|---|---|
| Port Health and Environmental Services<br>Planning and Transportation | 27 November 2018<br>20 November 2018 |
| **Subject:**<br>Consultation on Noisy Saturday Construction Work Activities in the City of London | **Public** |
| **Report of:**<br>Director of Markets and Consumer Protection | **For Decision (PHES), (P&T),** |
| **Report author:**<br>Rachel Pye, Assistant Director Environmental Health and Public Protection | |


**Summary**

This report seeks a decision on the standard noisy construction hours arrangements for Saturday mornings in the City of London.

At the 19 September 2017 Port Health and Environmental Services Committee (PHES) meeting it was decided to publish the latest iteration of the City's Code of Deconstruction and Construction Practice (COP), 8th Edition. It was also decided that the City Corporation would undertake a consultation about Saturday working in relation to noisy construction activities in response to a Barbican Association resolution. A draft questionnaire was agreed at the March 2018 PHES committee.

The consultation and analysis are now complete with 725 responses received. 62% of respondents felt that the existing hours of 0800 to 1300 on Saturday for noisy construction works on Saturdays should continue, 35% did not, and 3% gave no opinion.

The options have been considered and are set out below. It is necessary for Committee Members to comply with the City's public sector equality duty and its duty not to discriminate in performing its public functions. and the interests of those with protected characteristics. The issue of potential negative impacts of construction noise on some people with a protected equality characteristic is acknowledged and mitigating steps have been identified as far as possible.


**Recommendation(s)**

The Committee is asked to:

1. Note the assessment and evidence set out in Appendices 3-6 and 8.

2. Consider the report on the outcome of public consultation set out in Appendix 2.

3. Having considered 1 and 2 above and read the legal comments of the City Solicitor set out in Appendix 9 and having, both when considering 1 and 2 above

and at all stages throughout, complied with the City's duties set out in this report, including reading and considering the Equality Impact Assessment at Appendix 7 and having due regard to the needs set out in section 149 of the Equality Act 2010

After having done so, the Committee is recommended to decide that no change is made to the standard noisy construction hours arrangements for Saturday mornings in the City of London. However, if Members are minded to change to standard working hours that option d (i) could be considered.

## Main Report

### Background

1. At the 19 September 2017 Port Health and Environmental Services Committee (PHES) and 3rd October P&T Committee meetings, it was decided to publish the latest iteration of the City's Code of Deconstruction and Construction Practice (COP), 8th edition. The COP had been updated to reflect current best practice, guidance and the inclusion of a schedule of monitoring fees for developers to encourage use of the best environmental options in planning and managing construction and deconstruction. It balances the needs of the business City to undertake construction works with the needs of residents and neighbouring businesses who want impacts to be minimised. It also reflects the priority placed on mitigating the impact of poor air quality and unwanted sound from construction sites on the physical and mental health of residents, workers and visitors.

2. The consultation on the draft 8th edition in 2017 included residents, businesses, and neighbouring boroughs. Comments were supportive of the Code and where critical feedback was received on issues these were about improving guidance, e.g. less intrusive vehicle reversing alarms, requesting a stricter approach and additional resources to help enforce the Code. These suggestions were all included in the draft new 8th edition, Appendix 1 for consideration by the Committee.

3. A letter was received from the Barbican Association to the PHES Committee requesting that the City does not permit noisy work from construction sites in or adjoining residential areas on Saturdays. After discussion at the PHES Committee in September and November 2017 it was agreed that the City would undertake a consultation about Saturday working in relation to Saturday noisy construction activities. The Committee agreed that 'a further evidence based study on Saturday Morning Working and the impact this has on both Barbican residents and those in residential wards, and the effects on developments along with the legal implications would be prepared and undertaken'. The matter would then be presented as a report to your Committee for decision.

4. An officer working party was formed, comprised of the Comptroller and City Solicitor, the Port Health and Public Protection Director and the Chief Planning Officer and Development Director and other relevant officers from their services, to consider the questions to be asked, responses, evidence and any other information received in producing this final report for Members' consideration.

**Current Position**

5. The working group considered the following points;

    - the consultation process for changing Saturday noisy working,
    - definitions of noisy working,
    - how to approach the issue of exemptions to the restrictions,
    - how the needs of developers could continue to be met, if any new policy were to be implemented,
    - and how the needs of residents could continue to be met if the existing policy remained unchanged.

6. On the scope of the intended consultation, the approach taken was that, whilst the City Corporation has some "residential wards" for electoral purposes (Portsoken, Queenhithe, Aldersgate and Cripplegate), given that residential properties are distributed, albeit with varying degrees of intensity and numbers, throughout the City's area, consultation should take place throughout the City. Respondents may feel excluded and it be discriminatory if it is suggested that only certain areas, and hence only certain residents, would be consulted about and/or potentially be the subject of, any ban. A question inviting general comments, including alternative options, was used to give respondents the opportunity to raise and discuss this issue of residential areas, among any other issues, if they chose to.

7. As with the 2017 consultation for the COP, views were sought as widely as possible to ensure a continued 'balanced approach' to the needs of the business City to undertake construction works, and the needs of residents and neighbouring businesses who need impacts to be minimised.

8. The consultation questionnaire is attached at Appendix 2.

9. Government guidance for consultation best practice is to have consultations open for twelve weeks to ensure adequate time for publicity and for respondents to consider and send their response. The consultation was open for twelve weeks from 7th May and closed on the 7th August 2018.

10. There were 725 responses received to the consultation. Individuals accounted for 78% of all responses and organisations for 21% of all responses. As to individuals, 149 stated they were residents. Of those residents, 116 felt that noisy Saturday working should not continue. As to organisations, there was a large degree of variation to the size of responding organisation and responses were received from small companies to large organisations operating in the City of London. Of those organisations, 86% felt that the existing noisy Saturday working hours should continue, 62% of all respondents felt that noisy Saturday working between 08:00 and 13:00 should continue, 35% did not and 3% gave no opinion. The full public consultation outcomes report is attached at Appendix 2.

11. In parallel with the consultation and analysis, further evidence and data has been sought to include in this report to provide background information to your decision-making including development pipeline, air quality data, environmental monitoring and construction activities observations, complaints data and equalities information and analysis.

**Options Considered**

12. The detailed analysis of the considered options for the standard hours for noisy Saturday construction works is in Appendix 3.

    The considered options with summary analysis are:

    a. No Change.

        - The overall outcome of the consultation responses gave a clear indication that the majority of respondents overall did not wish to see at change although a majority of resident respondents said they wished Saturday noisy works to cease

        - Development pipeline and demand data shows that Saturday morning noisy works are likely to continue to be required to meet the future demands of a growing world class City.

        - Most Saturday noisy construction works are necessary to be carried out at that time due to safety, congestion and engineering practicalities.

        - Current levels of construction noise complaints on Saturday mornings are low and sites are generally compliant with the Code.

        - Concentrations of air pollutants are lower on Saturdays than weekdays.

    b. No noisy construction works in standard hours 0800 to 1300 on Saturday

        - The majority of consultation respondents overall do not support this option, although a majority of resident respondents supported this option.

        - Respondents raised issues in relation to the need for Saturday noisy works to avoid congestion, safety conflicts with pedestrians and length of programme.

        - The respondents in favour of this option were residents and the main reason cited was the impact of construction noise on mental and physical health, wellbeing, the ability to rest, and upon children, the elderly, the disabled and those who are pregnant or with young children

- The evidence base in appendices 4, 5, 6 and 8 does not provide data to support this option.

c. Additional hour of noisy construction works Monday to Friday 18:00 to 19:00

- The majority of respondents of all categories did not support this option.
- The evidence base did not provide data to support this option.

d. Partial permissions

i. Change standard noisy Saturday construction hours City wide to 0900 to 1400

- This option was suggested by a number of consultation respondents
- The evidence base in Appendices 4, 5, 6 and 8 does not show any disbenefits to this option.
- This option is often already negotiated informally through liaison as per the COP.
- This option would be beneficial to residents City wide in providing an hour of quiet time when most would be at home with no real disbenefit to developers as the hour is moved to the afternoon. There may be some disbenefit to the construction workers who would begin their weekend an hour later.

ii. Not permitting noisy construction works on Saturdays near residential areas

- This option was suggested by the Barbican Association.
- The City has residential properties distributed within its area at varying degrees of intensity and numbers and hence residential areas are not able to be defined in any workable and/or fair way.
- This option has the potential to be discriminatory and unfair if some residents benefit whilst others, such as those who reside in areas containing few and/or scattered residences, do not.

**Equalities Implications**

13. The City when carrying out its functions must comply with the Public Sector Equality Duty enacted in section 149 of the Equality Act 2010. This means that

Members must pay due regard to the matters set out in section 149. This is a personal duty of Members and is set out and explained to Members in Appendix 9, which Members should read. In order to assist Members to pay due regard to these matters, an Equalities Impact Analysis (EIA) has been completed and it is attached as Appendix 7. Notwithstanding the summary in the following paragraphs, all Members should read and carefully consider that assessment. In addition in particular reference to disability the City has a duty under section 29 of the Equality Act not to do anything that constitutes discrimination (or victimisation or harassment) in the exercise of a public function, and a duty to make reasonable adjustments. The EIA is also important material in this regard.

14. The EIA has identified potential negative impacts of Saturday noisy working on certain protected groups including in particular the elderly, disabled, those who are pregnant or with young children. This is acknowledged, and mitigating steps are suggested as far as reasonably practicable. The strategy for measures to mitigate negative impacts includes incorporating some suggestions made as part of the public consultation, such as improving the City's enforcement of permitted noisy working hours.

15. The existing COP recognises that each construction project undertaken will have different impacts on different people and will need to be assessed at the start and throughout to establish those impacts and minimise them as far as is reasonably possible.

**Key Policies and Proposals**

16. It is proposed that Members take into account all the information provided and, subject to comments received at your meeting, that no change is made to the standard noisy working hours in the City of London. However, if Members are minded to change standard noisy working hours that option d (i) could be considered.

17. Options b, c and d (ii) are not recommended taking into account the relevant matters detailed in the appendices and in this report.

18. Members of PHES and P&T Committees approved the 8th edition COP in 2017. The COP contains measures to mitigate the effects of noisy construction works on Saturday mornings and throughout the week. Those measures have not yet been realised as the implementation is underway. The implementation of the proposed monitoring levy detailed in paragraph 19 below begin in earnest on commencement of schemes mid 2019.

19. The Code introduced for the first time several new measures in sections 2, 3 and Appendix L available in Appendix 1 of this report that will help mitigate adverse construction impacts more effectively;

    - A schedule of monitoring costs contributed to by the developer to ensure better long-term environmental management and this will enable a more proactive approach to monitoring and enforcement of any breaches by a new team of City Officers. The levy is based in the 'polluter pays' principle with an annual fee paid to the City, the amount dependent on the size of the

site. The fees' will fund officer posts whose role will be active on-site monitoring of compliance with the City's COP and the enforcement of any breaches.

- A stronger approach to air quality impacts from Non-Road Mobile Machinery through registration of all plant on a London database which is audited on site to ensure site equipment meets the best available emissions standards.

- Specific noise reduction technologies such as the requirement for broadband sound reversing alarms.

20. Implementation of these measures is underway and the benefits to residents of these changes will begin to be realised in 2019 as the first payments of the levy are made and a more rigorous approach to environmental monitoring and enforcement of construction will then be able to be financed and taken.

21. Further consideration is to be given to how best to ensure residents are enabled to be better aware of the opportunities available to them for liaison and consultation in relation to noise concerns they may have about specific existing and proposed developments within the City of London set out in the COP and the Planning regime with respect to Schemes of Protective Works and the specific steps that can be taken in this regard.

**Legal Implications**

22. The legal framework and relevant case law considered is set out in Appendix 9. There are potential equalities implications associated with the recommended option of 'no change' or the alternative option of changing noisy working hours to 0900 to 1400 on Saturdays but provided Members comply with their equality duties as explained in Appendix 9 and Appendix 7 no further legal implications arise.

**Financial Implications**

23. There are no resource implications arising from the recommended option of 'no change'. If Members are minded to approve the option of changing noisy working hours to 0900 to 1400 on Saturdays, the costs for implementation will be met from existing budgets within the Port Health and Public Protection Service.

**Corporate and Strategic Implications**

24. Corporate Plan 2018-2023: the recommended option and secondary option, if combined with the mitigation steps referred to above, meet all three aims of 'contributing to a flourishing society', specifically that 'people enjoy good health and wellbeing', as well as elements of 'supporting a thriving economy' and 'shaping outstanding environments'.

**Consultees**

25. The proposal has undergone full internal and external consultation and the leaflet and questionnaire were made available online for stakeholder comment during a

3-month period. The consultation was promoted widely on the City's social media platforms, articles were placed in publications such as the City Resident magazine. The consultation was emailed directly to all residents' groups and associations, City of London Members, City Officers, City Property Association Members, City Developers, all Considerate Contractor Scheme construction, demolition and street works contractors. In addition, the consultation was the subject of discussion at Highways Co-ordination meetings and meetings with Barbican Association representatives. The results of this have been considered and the Public Consultation Outcomes Report is attached as Appendix 2.

**Conclusion**

26. The City Corporation has undertaken a consultation, gathered the available evidence base, and undertaken a detailed analysis with respect to the matter of the standard hours for Saturday working in relation to noisy construction activities.

27. The consultation responses showed a strong overall level of support for retaining the current arrangements for standard Saturday noisy construction hours citing safety, length of overall programme, ability to deliver developments on time and meet demand and development costs. However, concerns were also raised, including by a majority of resident respondents, about how the current arrangements adversely affect physical and mental health, wellbeing and the ability to rest.

28. The available data gathered provided in general supports the retention of the existing arrangements.

29. Due regard has been paid to the needs set out in the City's statutory public sector equality duties and the interests of those with protected characteristics when compiling this report and recommendations. The issue of negative impacts of construction noise on some people with a protected characteristic, particularly the elderly, children, the disabled, and those who are pregnant or with young children is acknowledged and is mitigated as far as reasonably practicable.

30. The negative impacts of noisy construction work on residents in the City of London on Saturday mornings are acknowledged and in 2017 the City Corporation produced a refreshed and updated Code of Practice for Construction and Deconstruction to mitigate these impacts by ensuring the use of the best environmental options in planning and managing construction and deconstruction, whilst ensuring the City can continue to function as a modern world class business centre.

31. Implementation of the measures set out in paragraph 19 is underway and the benefits to residents of these changes will begin to be realised in 2019 as the first payments of the levy are made and a more rigorous approach to environmental monitoring and enforcement of construction will then be able to be financed and taken.

32. Further consideration is to be given to how best to ensure residents are enabled to be better aware of the opportunities available to them for liaison and consultation in relation to noise concerns they may have about specific existing and proposed

developments within the City of London and the specific steps that can be taken in this regard.

33. In conclusion, the evaluation has had due regard to the City's statutory duties including: the rights of statutory undertakers to install and maintain their networks, the rights of infrastructure schemes held in Acts and Orders, the ability to apply for prior consents for construction works, the public sector equalities duty and the interests of those with protected characteristics.

34. Taking all the available information into account this report recommends that no change is made to the standard noisy construction hours arrangements for Saturday mornings in the City of London.

**Background Papers**

Briefing Paper: Permitted hours for noisy works in the City - City of London Code of Practice for Deconstruction and Construction PHES June 2017

**Appendices**

**Appendix 1 -** Code of Practice for Deconstruction and Construction Sites 2017

**Appendix 2 -** Public Consultation Outcomes Report

**Appendix 3 -** Discussion and Analysis of Options Considered

**Appendix 4 -** Summary construction noise complaint data.

**Appendix 5 -** Summary observational analysis of construction sites 2018.

**Appendix 6 -** Air quality data for 2017.

**Appendix 7 -** Summary Equalities Impact Analysis

**Appendix 8 -** City Development Tracker and Pipeline map

**Appendix 9 -** Legal Framework

**Contact:**
*Rachel Pye*
*0207 332 3313*
*rachel.pye@cityoflondon.gov.uk*

**Appendix 1**

Code of Practice for Deconstruction and Construction Sites Eighth Edition 2017 available at:

https://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/Documents/Code-of-practice-for-deconstruction-and-construction.pdf

# Appendix 2

# Construction Work Activities on Saturday In the City of London

## Public Consultation Outcomes Report

**Prepared by: JA**

**Approved by: RP**

**Date 29th October 2018**

## Introduction

The City of London Corporation is reviewing the existing 'standard hours' arrangements for noisy Saturday morning construction activities and has recently held a public consultation around the principle of ending or revising the 'standard hours' working arrangements for noisy work Saturdays.

The high volume of development in the Square Mile, including major office redevelopments in the east of the City, has the potential to have significant environmental impacts on occupiers of nearby premises. Protecting City businesses, residents and other noise sensitive premises (e.g. schools) from noise and vibration impacts of construction sites is a necessary part of ensuring the City is an excellent place to live, work, learn and to do business.

"Noisy" work in this context is usually defined as being *'where audible at the site boundary, or another location agreed by the City, and/or is likely to cause disturbance*. The standard hours for noisy construction activity are set out in the Code of Practice for Deconstruction and Construction (the Code) and can also be found at www.cityoflondon.gov.uk/noisestrategy, and include 'quiet hours' as stated below.

'Standard hours' currently permitted for **noisy** work are normally as follows:

- 08:00 - 18:00 hours (Monday to Friday);
- 08:00 - 13:00 hours (Saturday);
- No noisy working is permitted on Sundays, bank or national holidays. Within the standard hours there are 'quiet hours' (10:00-12:00 and 14:00-16:00 from Mondays to Friday) which are observed where City businesses may be affected by noise or vibration.

Outside 'standard hours' and during 'quiet hours' the following noise generating activities are not usually permitted where the activities are likely to cause disturbance:

- Cutting using power tools;
- Breaking out using power tools;
- Other noise generating activities, depending on the specific location of site and neighbours.
- The use of impact fasteners;
- The loading of heavy materials;
- Other noisy activities, depending on the specific location of site and neighbours, deemed unacceptable by Environmental Health Officers (EHO).
- These may include but are not limited to: the erection and dismantling of scaffolding, cranes, road resurfacing and vehicle movements.

Allowing some hours of noisy working on Saturdays can reduce the overall time taken for projects to complete. However, this needs to be balanced against amenity for those in the area.

Noisy work outside of the 'standard hours' or during 'quiet hours' may currently be permitted where this is aligned with the needs of the local community and City businesses. When requests from contractors for variations to hours of work are made the typical matters considered include the proximity to residential properties, places of worship and hospitals. Variations to these hours may be approved for works where impacts are expected to be low. Variations may be refused if the impacts on neighbours are considered high or previous variations have not been fully complied with.

A public consultation was held between 7th May 2018 and 7th August 2018 and received a total of 725 responses from individuals and organisations. This report presents the outcomes of the consultation and is structured as follows;

**Section One: Summary of survey outcomes Page 4**

**Section Two: Results by Question Page 5**

**Section Three: Responses from Organisations Page 13**

**Section Four: Protected Characteristics Page 16**

**Section Five: Conclusions Page 17**

**Appendix One: Submitted responses from organisations Page 18**

**Appendix Two: Public Consultation Questionairre Page 25**

**Section One: Summary of survey outcomes**

***High Level Support***

- **725** responses were received to the survey
- **62%** of respondents felt that noisy Saturday working between 08:00 – 13:00 should continue, **35%** did not, and **3%** gave no opinion.
- The largest respondent group in favour of retaining the current arrangements were **individuals working** in the City of London.
- The largest respondent group **not** in favour of continuing the current arrangements were **individuals living** in the City of London.

***Potential Partial Permissions***

- **47%** of respondents are open to partial permissions such as time and area alterations **43%** are not, **10%** gave no opinion. Regarding partial permissions the most common remark provided was that all current arrangements should remain in place, followed by comments around shifting noisy Saturday working away from residential clusters or moving to a later start time.
- **48%** of respondents felt that there should **not** be an extra hour of noisy working on Monday-Friday instead of noisy Saturday working as suggested by the City, **44%** felt that there should, and **8%** gave no opinion. Respondents felt that the extra hour proposed may help, but that Saturday working was preferred overall and that an extra weekday hour may result in more disturbance to residents.

***Effect of existing arrangements and potential removal***

- **42%** of respondents stated that they had not been affected by Saturday noisy working, **34%** stated that they had been negatively affected, **13%** said they had been positively affected, and **11%** gave no opinion. Those negatively affected by the current arrangements cited the general effects of noise and those positively affected cited efficiencies in project time and cost facilitated by Saturday working.
- **48%** of respondents stated they would be negatively affected should noisy Saturday working be removed, **29%** stated they would be positively affected, **14%** said they would not be affected, and **9%** gave no opinion. The most common statements regarding impact of removal were the increase in cost or time to complete a project for those negatively affected, followed by a potentially quieter environment for those positively affected, should it be removed.

***Organisations***

- Responses from organisations accounted for **152** or **21%** of all responses and on average each organisation stated that they represented circa **2500** people. **86%** of the organisations that responded stated that they thought existing arrangements should continue, citing a potential increase in cost and time to projects and an inability to conduct specialist work, should noisy Saturday working be withdrawn.

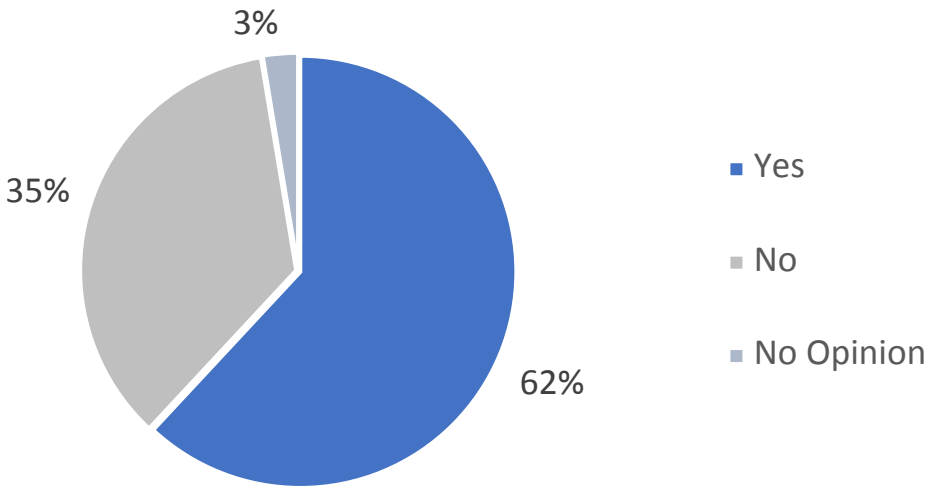
***Protected characteristics***

- 109 out of 725 respondents stated that they had been impacted in respect of one or more protected characteristics by noisy Saturday working. The most commonly cited protected characteristics were age disability and pregnancy and maternity, and the most common comment on how respondents had been affected was around noisy works impacting rest and physical and mental health.

## Section Two: Results by question

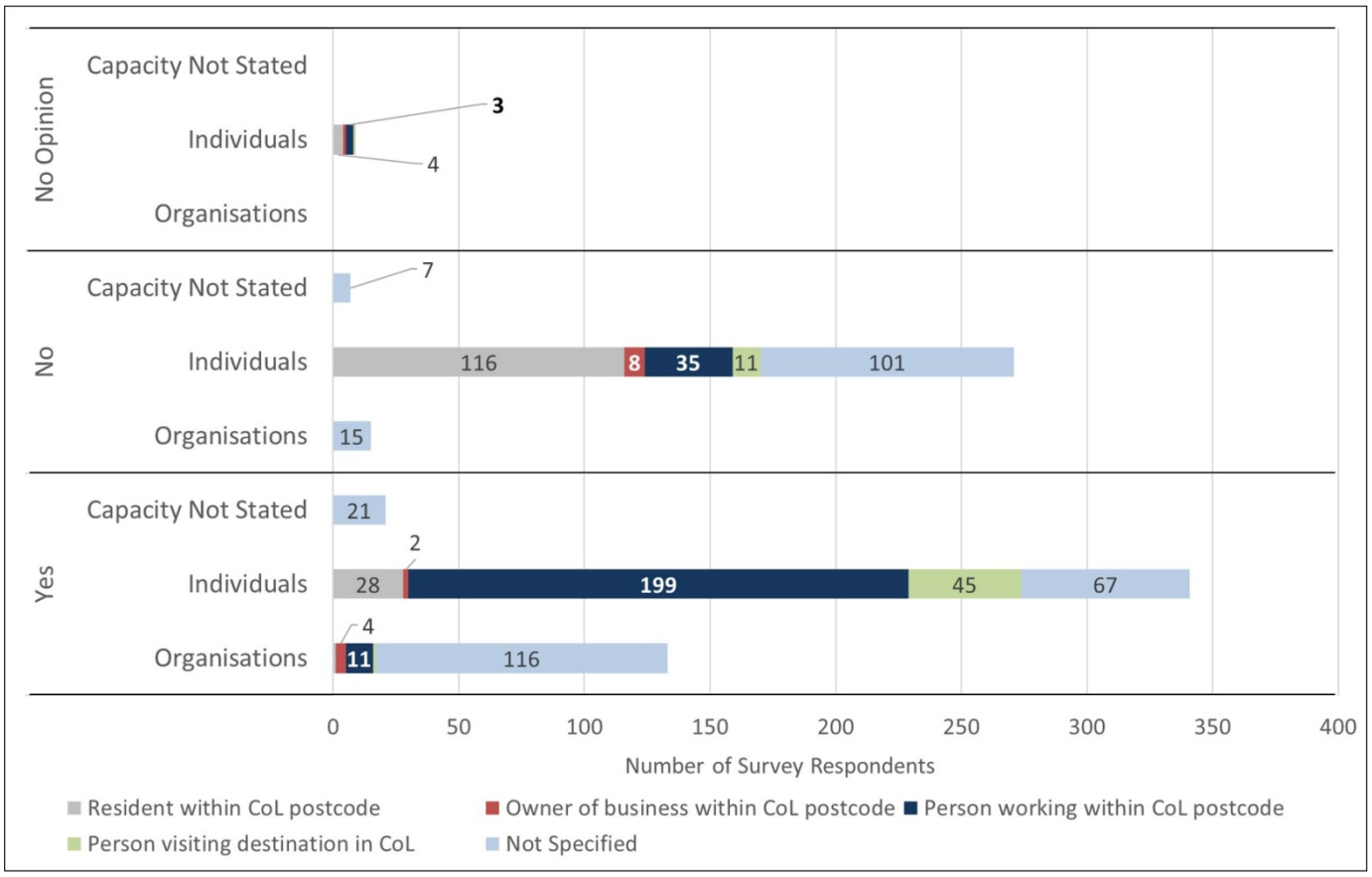
**Question One: Do you think the existing Saturday permitted hours for noisy construction work activity (08.00-13.00) should continue?**

**Figure 1: Response outcome for Question 1 (n = 725)**




A total of 725 responses to this question were recieved, with 449 respondents stating that the existing Saturday permitted hours for noisy construction work activity should continue. 257 stated that the permitted hours should not continue, and 19 gave no opinion. Figure 2 below shows the capacity in which respondents undertook the survey and amalgamates information from survey questions 1, 7 and 9.

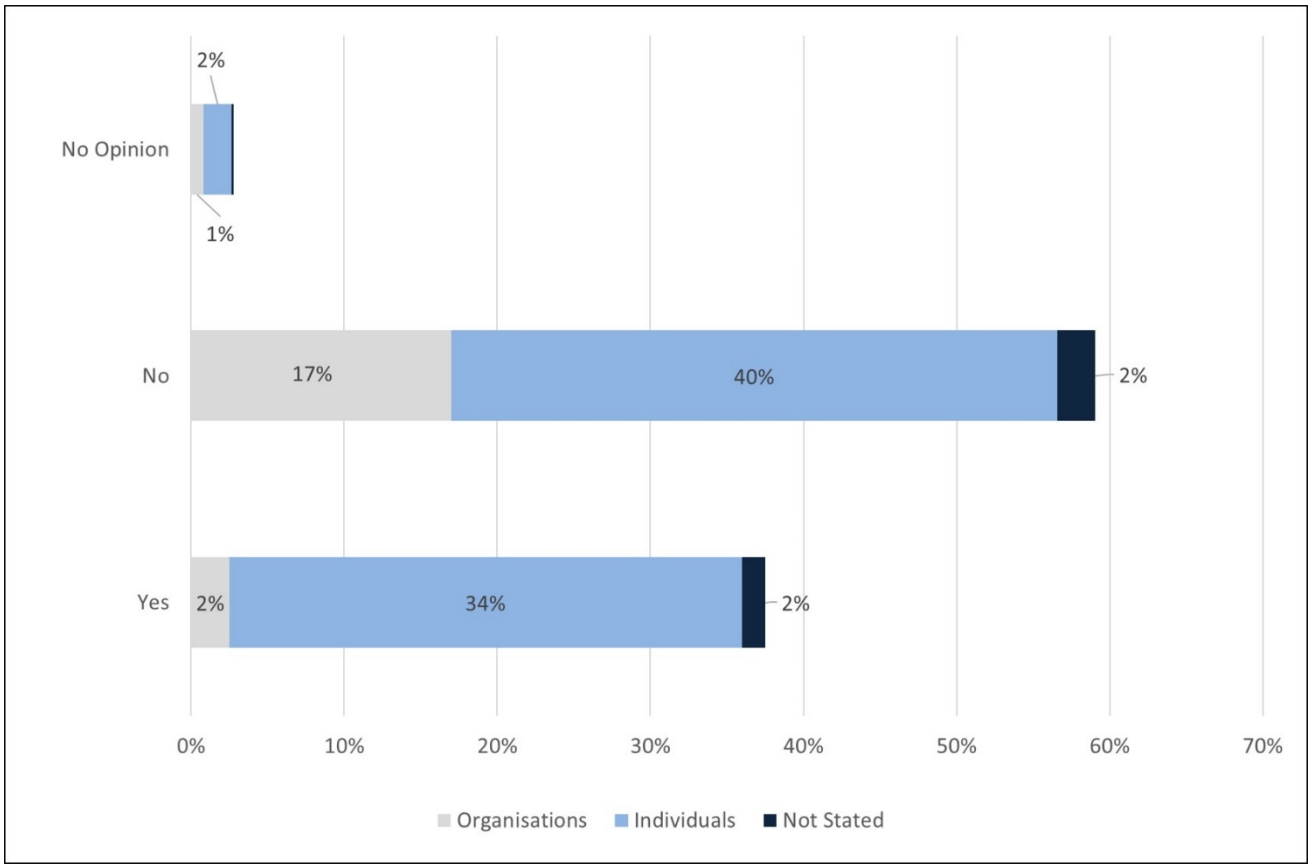
**Figure 2: Respondent support by response capacity**




***it should be noted that respondents were able to provide more than one answer to question 9, i.e. they could state that they were a resident and a person working within a CoL postcode. Respondents were only permitted to provide one answer to questions 1 (overall support) and 7 (individual or organisation).***

**Question Two: Do you think that, unless permitted in emergencies or upon special application (such as for public safety reasons, or where local neighbours would prefer it to speed up the project overall), there should be no noisy works permitted on Saturdays?**

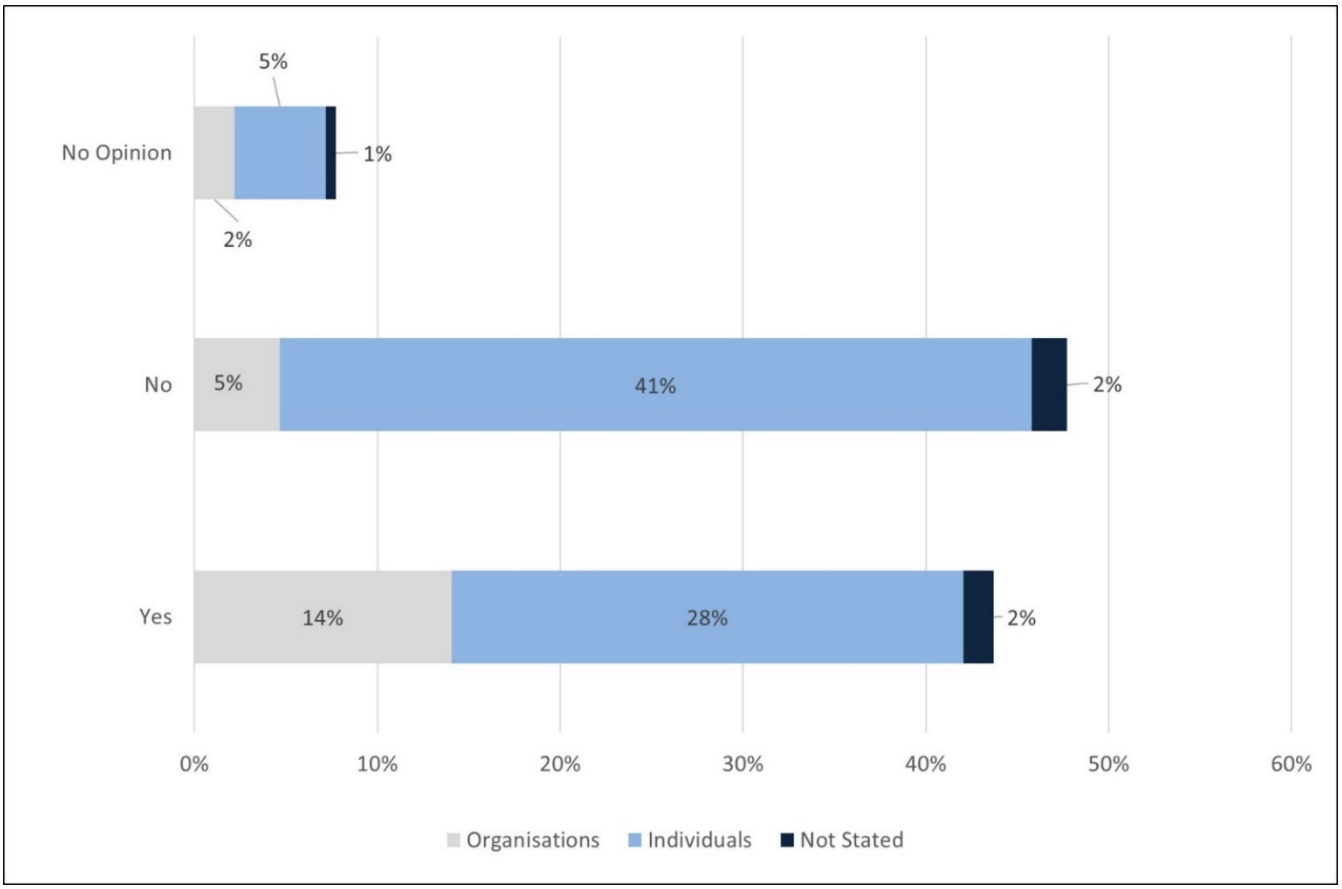
**Figure 3: Response outcome for Question Two**




There was a total of 725 responses to this question, with a total of 433 respondents giving a 'no' answer, 272 stating 'yes' and 20 giving no opinion.

**Question Three: Do you think that if noisy construction works were not permitted on Saturdays, there should be an extra hour of noisy construction work permitted on Monday-Friday, from 18:00 until 19:00?**

**Figure 4: Response outcome for Question Three**




A total of 725 responses were received to this question. 346 stated that there should **not** be an extra hour of noisy construction work permitted on Monday-Friday from 18:00 to 19:00, should construction works not be permitted on Saturdays. 323 of respondents stated that there should, and 56 gave no opinion.

Respondents were then asked to give a reason to support their answer, respondents answering 'Yes' to this question gave the following reasons for their answer;

| Reasons Provided 'Yes' | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Would help should Saturday working be banned | 35 | 49 | 0 | **84** |
| Saturdays are preferred | 28 | 38 | 1 | **67** |
| Would be less disturbing / disruptive | 2 | 19 | 0 | **21** |
| Would be preferable to Saturday | 2 | 14 | 0 | **16** |
| Would be more disturbing / disruptive | 4 | 5 | 0 | **9** |
| Would be a last resort | 2 | 6 | 0 | **8** |
| Would be more productive | 1 | 4 | 0 | **5** |

***Not all respondents that answered the question took the opportunity to provide a comment***

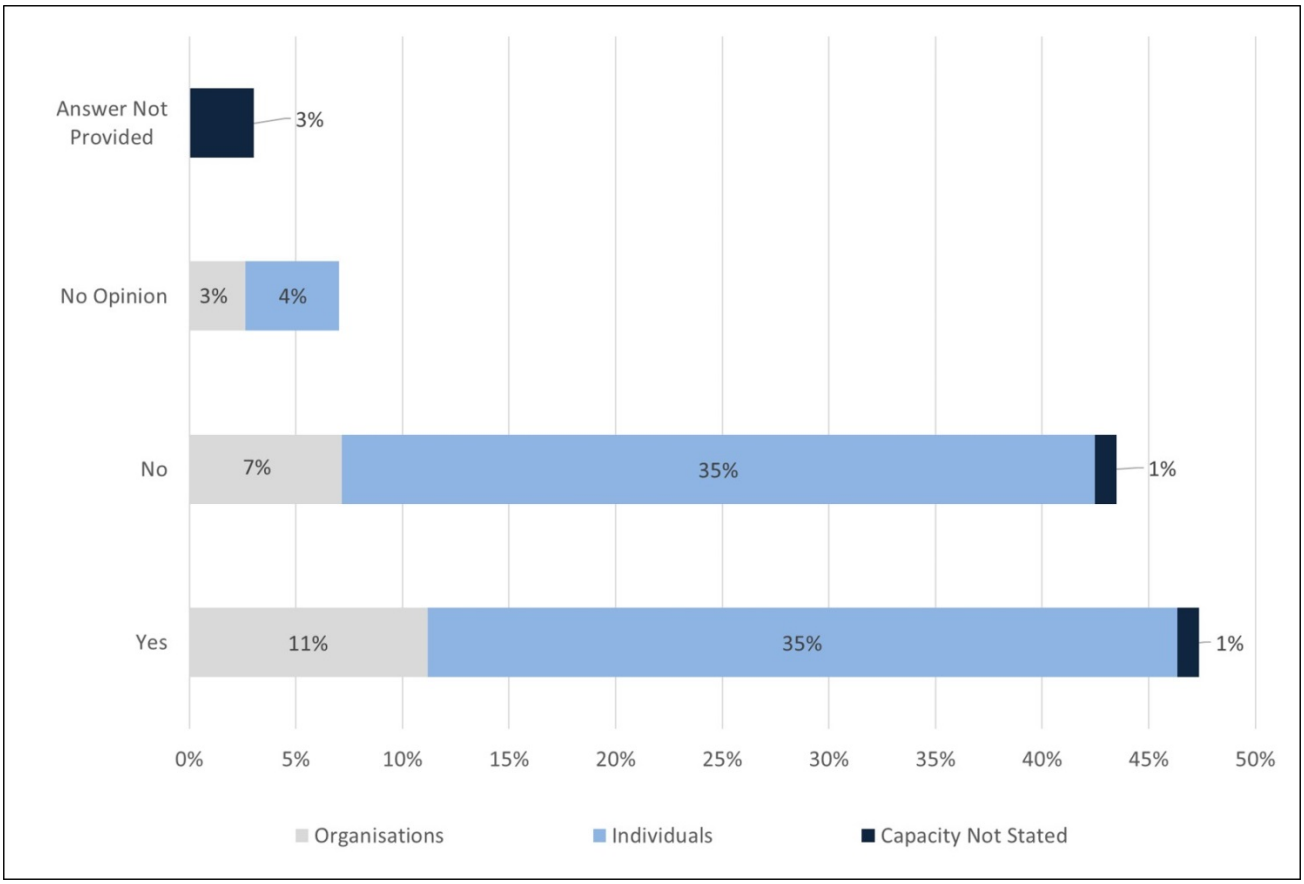
Respondents answering 'No' to this question gave the following reasons for their answer;

| Reasons Provided 'No' | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Extra hour would be more disturbing / disruptive | 0 | 63 | 2 | **65** |
| Would be too difficult for staff (day too long) | 8 | 24 | 0 | **32** |
| Saturdays are preferred | 1 | 12 | 0 | **13** |
| Awkward / substantive works or deliveries are easier to carry out on Saturdays than weekday evenings | 5 | 5 | 0 | **10** |
| 5 one hour slots would be less productive | 4 | 5 | 0 | **9** |
| Would increase project cost / time | 1 | 7 | 0 | **8** |
| Saturday working withdrawn, with no extended hours during the week | 0 | 5 | 1 | **6** |
| Other | 0 | 6 | 0 | **6** |
| Change Saturday working times e.g. later start 0900. | 0 | 3 | 0 | **3** |
| Would increase pollution / impact traffic flows | 0 | 2 | 0 | **2** |

***Not all respondents that answered the question took the opportunity to provide a comment***

**Question Four: Do you think that, unless permitted in emergencies or upon special application as in question 2, that noisy Saturday construction work should be partially permitted, e.g. specific times, locations, away from residential clusters, alternate weekends, etc.?**

**Figure 5: Response outcome for Question Four**



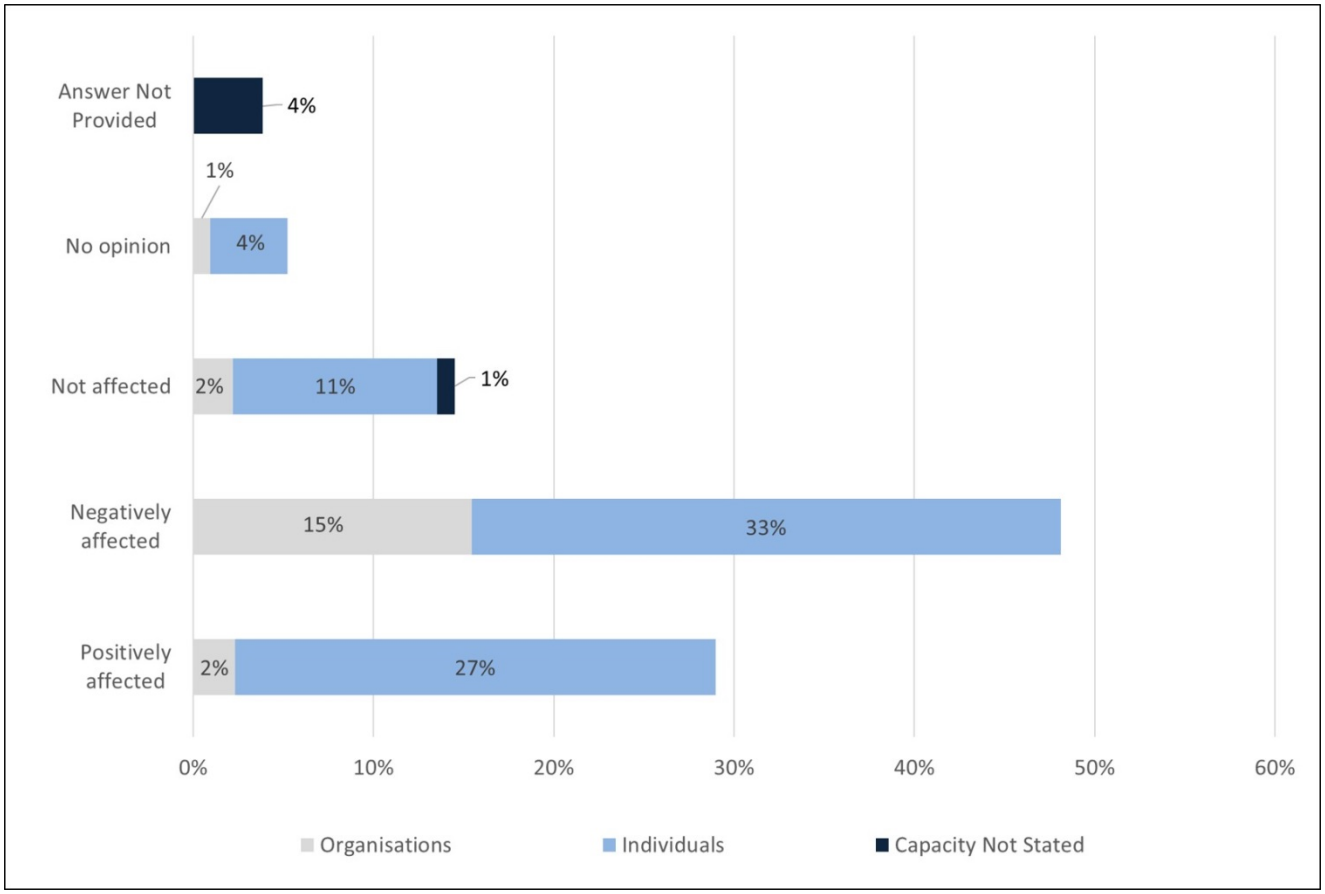

A total of 703 responses were received to this question, with 338 respondents stating that noisy Saturday construction work should be partially permitted, 313 said that it should not be partially permitted, 52 stated no opinion and 22 failed to provide an answer. Respondents who answered 'Yes' to this question were then asked to state what they believe should be permitted.

| What should be permitted? | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Everything should remain permitted / No change | 34 | 73 | 1 | **108** |
| Away from residential clusters | 5 | 72 | 1 | **78** |
| Special time constraints | 11 | 26 | 0 | **37** |
| Special construction / emergencies / health and safety risk | 9 | 25 | 1 | **35** |
| Careful management of times and locations | 9 | 17 | 0 | **26** |
| Nothing should be permitted at the weekend | 0 | 11 | 1 | **12** |
| Contractors are likely to abuse permissions | 0 | 7 | 0 | **7** |
| Partial permission would add to cost / project time | 4 | 3 | 0 | **7** |

***Not all respondents that answered the question took the opportunity to provide a comment***

**Question Five: Do you think you or your organisation would be affected if noisy construction work was not permitted on Saturdays?**

**Figure 6: Response outcome for Question Five**




A total of 697 responses were received to this question, with 350 respondents stating that they would be negatively affected, 210 respondents stated that they would be positively affected, 99 stated that they would not be affected and 38 gave no opinion. Respondents were then asked to describe how they would be affected and the most common responses are outlined below.

| Reasons for being positively affected | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Would be quieter | 2 | 87 | 0 | **89** |
| Would improve life as a resident | 2 | 69 | 0 | **71** |
| Would improve air quality | 0 | 9 | 0 | **9** |
| Would give construction staff more free time | 2 | 0 | 0 | **2** |

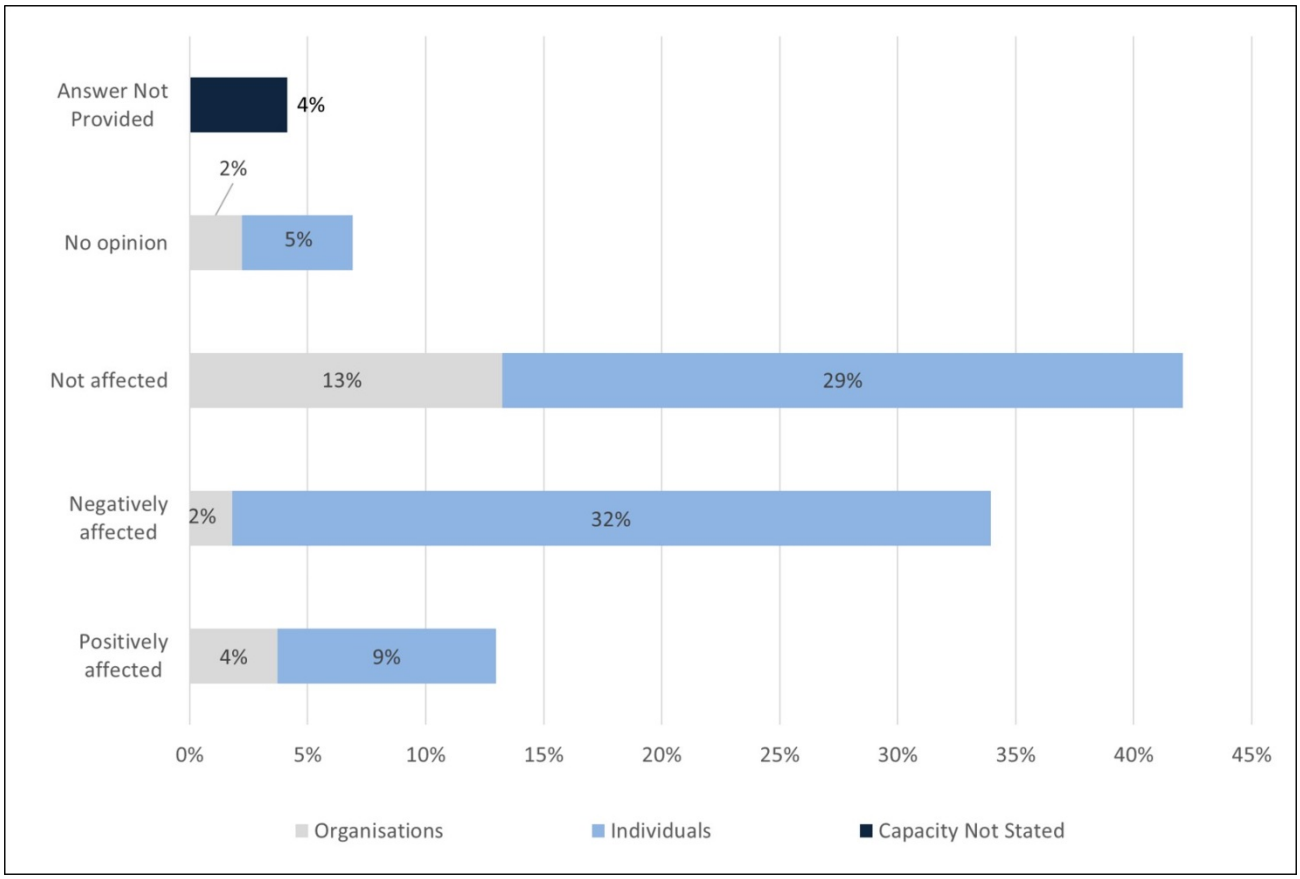
***Not all respondents that answered the question took the opportunity to provide a comment***

| Reasons for being negatively affected | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Increase in project cost / time | 48 | 88 | 1 | **137** |
| Specialist work needs to be conducted at weekends | 24 | 26 | 0 | **50** |
| Would lose workforce (due to reduction in pay) | 8 | 13 | 0 | **21** |
| Would constitute a health and safety risk | 4 | 7 | 0 | **11** |
| Work to be carried out at other unsociable times | 3 | 7 | 0 | **10** |
| Extension of weekday hours would be negative | 3 | 5 | 0 | **8** |
| It would negatively impact on workers' health | 2 | 5 | 0 | **7** |
| Difficult to coordinate works at busier times | 3 | 3 | 0 | **6** |

***Not all respondents that answered the question took the opportunity to provide a comment***
***22 respondents to this question stated that they would be positively affected but their comment gave detail on how they would be negatively affected, 10 respondents did the reverse, as such a total of 32 answers were changed to reflect the intended response.***

**Question Six: Are you or have you been affected by noisy Saturday construction work activity?**

**Figure 7: Response outcome for Question six**




A total of 695 responses were received to this question, 305 respondents stated that they had not been affected by noisy Saturday construction work activity, 246 stated that they had been negatively affected and 94 stated that they had been positively affected, 50 gave no opinion. Respondents were then asked to describe how they have been affected, the tables below show the most commonly cited responses.

| Reasons for being positively affected | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Efficiencies in project time / cost | 6 | 14 | 0 | **20** |
| Has allowed specialist works to be conducted | 6 | 9 | 0 | **15** |
| Works are easier to undertake due to a quieter environment | 8 | 6 | 0 | **14** |

***Not all respondents that answered the question took the opportunity to provide a comment***

| Reasons for being negatively affected | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Affected by noise | 8 | 142 | 0 | **150** |
| Works continue or begin outside of allocated times | 1 | 20 | 0 | **21** |
| Dust / air pollution | 0 | 14 | 0 | **14** |
| Poor behaviour of staff | 0 | 9 | 0 | **9** |
| likely to be affected in future | 0 | 4 | 0 | **4** |

***Not all respondents that answered the question took the opportunity to provide a comment***

***16 respondents to this question stated that they had been positively affected but their comment gave detail on how they would be negatively affected, 2 respondents did the reverse, as such a total of 18 answers were changed to reflect the intended response.***

**Question Eleven: Do you have any comments, evidence or proposals (including alternatives) that you wish us to consider regarding the issue of noisy Saturday morning construction works and/or any of the questions asked above?**

184 respondents used question fourteen to provide a concluding comment to their survey response: Table X below shows the most commonly provided comments;

| Comment | Organisations | Individuals | Not Stated | Total |
|---|---|---|---|---|
| Residents should be given priority or more consideration | 1 | 41 | 0 | **42** |
| Saturday working withdrawn, with no extended hours during the week / no weekend working | 2 | 31 | 0 | **33** |
| No change to existing arrangements | 7 | 21 | 0 | **28** |
| Change times of noisy Saturday working e.g. 0900 start | 4 | 13 | 0 | **17** |
| Enhanced enforcement of contractors | 0 | 12 | 0 | **12** |
| Would result in increase in project cost / time | 5 | 7 | 0 | **12** |
| No comment / none | 3 | 6 | 0 | **9** |
| Works are easier to undertake due to a quieter environment | 1 | 8 | 0 | **9** |
| Saturday working should be shifted to the weekday | 2 | 4 | 0 | **6** |
| Noisy Saturday working in emergencies only | 1 | 5 | 0 | **6** |
| Removal would impact London's economy | 1 | 5 | 0 | **6** |
| Specialist work needs to be conducted at weekends | 1 | 3 | 0 | **4** |

**Section Three: Responses from Organisations**

Within the analysis of the public consultation responses, responses from organisations have been included in the overall dataset in the same manner as any other individual response (i.e. the response from an organisation is counted as 'one' within the results). This is in order to avoid single responses unfairly weighting the survey outcomes, where an organisation has simply stated that it represents a large group of people.

The City of London is however aware that organisations can speak on behalf of a number of employees and stakeholders and as such this section of the report provides more detail on the sizes and types of organisations that provided a response to the consultation, so that this can be considered when interpreting the results provided within this report.

**Summary of responses from organisations**

- 21% of all survey responses came from respondents identifying as organisations.
- 86% of the organisations that responded stated that they thought existing arrangements should continue.
- 67% of the organisations that responded were in favour of the City of London's proposal to extend noisy working hours Monday – Friday in lieu of Saturday working, although the majority stated that Saturdays would be preferred.
- The opinion of organisations was split regarding partial permissions and organisations commented that the current arrangements should be retained.
- Organisations repeatedly cited concerns around increases in project cost and time should noisy Saturday working be removed.
- Whilst organisations submitted responses on behalf of their workers, a large number of individuals working for organisations in the City of London submitted responses in a personal capacity as evidenced by Figure 2.
- A number of organisations including contractors, developers and resident's organisations submitted formal written responses to the City of London in order to provide further opinion outside of the online consultation, these responses are presented in Appendix 1.

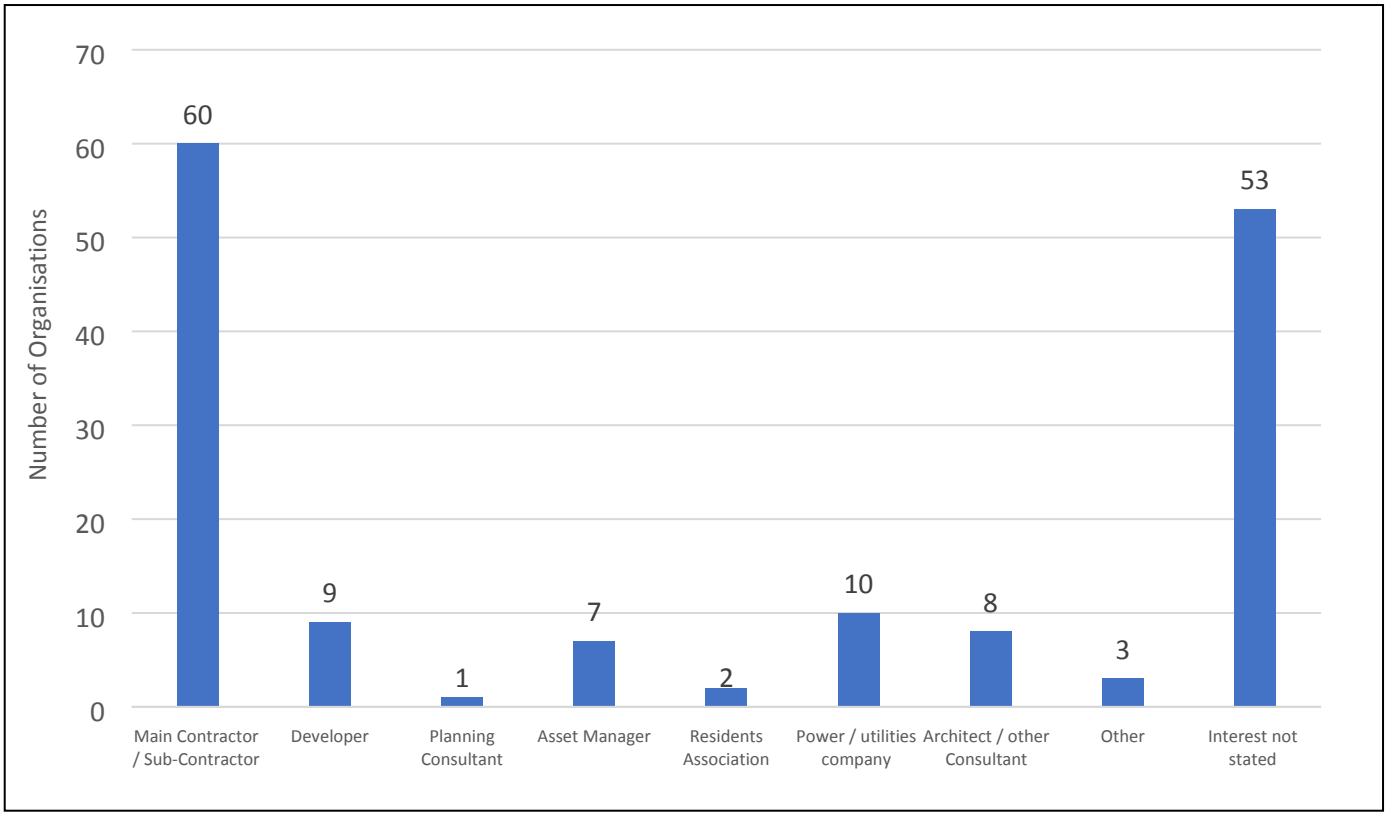
Organisations were also directly asked to provide qualitative responses to the following three questions;

1. *What is the name and postal address of your organisation and the nature of its interest in Saturday construction works?*

2. *How many people does your organisation represent?*

3. *How many people were involved in taking the decision on how your organisation should respond to this questionnaire?*

**Figure 8: Organisation responses to 'What is the nature of your organisation's interest in Saturday construction works?'**




For those respondents who identified themselves as responding to the consultation as an organisation, the majority were observed as being Main or Sub - contractors, responses were also received from property developers, asset managers and organisations that provide specialist works or services.

**Figure 9: Organisation responses to 'How many people does your organisation represent?'**

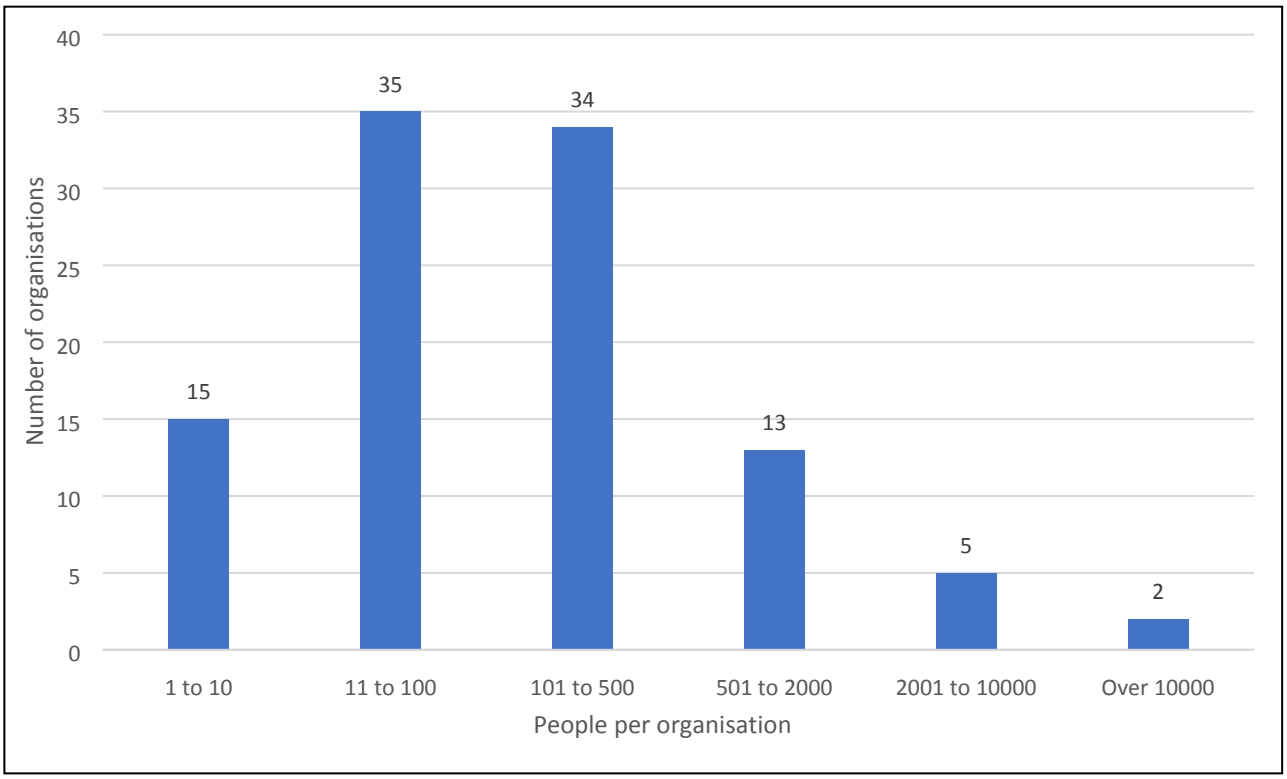
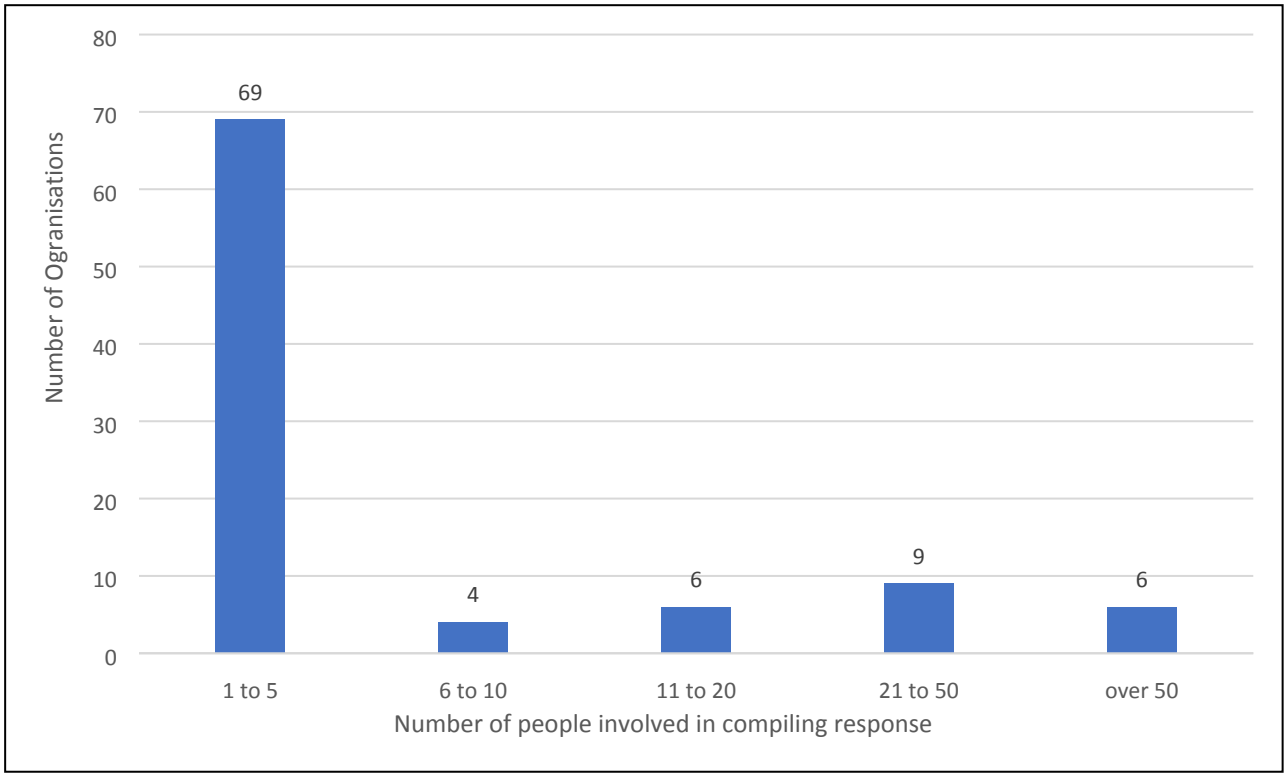



**Figure 10: Organisation responses to 'How many people were involved in taking the decision on how your organisation should respond to this questionnaire?'**




Figures 9 and 10 demonstrate that there has been a large degree of variation in the sizes of organisations responding to the consultation and responses were received from small companies to large organisations operating in the City of London.

**Section Four: Protected Characteristics**

Respondents to the consultation were asked whether the issue of noisy Saturday construction works had any impact on them as an individual, group or organisation under the protected characteristic listed below, the percentage of all respondents that cited each characteristic is also shown.

| Protected Characteristic | Number of survey respondents affected | % of all survey respondents affected |
|---|---|---|
| Age | 57 | 8% |
| Disability | 25 | 3% |
| Pregnancy & Maternity | 18 | 2% |
| Religion or belief | 7 | 1% |
| Sex | 2 | 2% |
| Gender reassignment | 0 | 0% |
| Race | 0 | 0% |
| Sexual Orientation | 0 | 0% |

Respondents were then asked to provide detail surrounding the impact to them under the protected characteristic. The most common comments provided and the number of respondents that mentioned being affected in this manner are detailed below.

| Comment | Number of survey respondents |
|---|---|
| Noisy works impacting rest | 43 |
| None / Not Applicable | 26 |
| Young children impacted by noise | 11 |
| Noisy work exacerbating health conditions | 11 |
| Works impacting access to places of worship | 2 |

**Section Five: Conclusions**

The City of London Corporation has consulted on the principle of ending or revising the 'standard hours' working arrangements for Saturdays. 725 responses were received to the online survey and 62% of respondents felt that noisy Saturday working between 08:00 – 13:00 should continue, 35% did not, and 3% gave no opinion. 21% of all responses were received from organisations, 75% from individuals and 4% did not state their capacity. Looking more closely at the profile of respondents and their support, the largest respondent group in favour of retaining the current arrangements were individuals working in the City of London. The largest respondent group not in favour of continuing the current arrangements were individuals living in the City of London.

The City of London Corporation asked respondents to provide their thoughts on a potential extra hour of noisy working on Monday to Friday should Saturday working be removed. A narrow majority of respondents felt that this would not be suitable due to potential extra disturbance. Respondents also stated that Saturday working would be preferable overall.

A degree of openness was displayed by survey respondents with regards to other types of partial permissions such as locating noisy work away from residential clusters, however the overriding sentiment that Saturday working arrangements should remain unchanged was again displayed by respondents.

Respondents were asked how they had been affected by noisy Saturday working and how they might be affected should it be removed, the majority of respondents stated that they had not been affected, some respondents stated that they had been negatively affected by noise. Regarding removal, a majority of respondents stated that they would be negatively affected should noisy Saturday working be removed due to increases in project cost or programme length, however a smaller portion of respondents stated they would be positively affected by a quieter environment.

Organisations responded to the consultation on behalf of their employees and the majority stated that they thought existing arrangements should continue, in order to avoid unfair weighting of the consultation outcomes, the response of an organisation was treated in the same manner as that of an individual.

15% of all survey respondents stated that noisy construction works had impacted them under a protected characteristic, the majority of which stated age but also disability, pregnancy and maternity as their affected characteristic and the impact of noisy works to their rest as the overall issue.

Residents living within the City of London make up the majority who wish to see noisy Saturday working in its current form removed, the majority of respondents in this category state disruption from noise due to ongoing construction works and call for more consideration in the planning and execution of construction works in the City.

The overall sentiment of the survey outcome is a preference for noisy Saturday working hours to remain unchanged with a majority support received to question 1. As demonstrated the majority of concern around removal of Saturday working comes from individuals who work within the City of London and to a lesser extent, the organisations which these individuals work for. The major concerns cited by these respondents is the potential increase to project cost and time and the ability to conduct specialist work at weekends due to a quieter City environment.

Respondents appear to agree that an extension of weekday working hours in lieu of Saturday working would not be suitable, however the survey has uncovered a willingness to consider other types of permissions which may suit all stakeholders. A shift in Saturday noisy working hours to 0900 to 1400 was suggested in a number of responses.

**Appendix One: Submitted responses from organisations**

A number of organisations including contractors, developers and resident's organisations submitted formal written responses to the City of London in order to provide further opinion outside of the online consultation, these responses are below.

Full consultation responses for all respondents is available on request.

**Response from the Barbican Association**

Dear XXXX

Please accept this letter as formal response from the Barbican Association to the City's current consultation on Saturday working on construction sites. We couldn't make the points we wanted to make within your survey format.

The Barbican Association is the recognised residents' association for the 4000 or so residents of the Barbican estate.

It was the BA's request, in response to the consultation last year on the revision of the City's Code of Practice for Deconstruction and Construction Sites, that the Code should not permit noisy working on Saturday mornings in the vicinity of residential areas. This request has prompted your current consultation.

Our points in response to the current consultation are:

1.We are not clear whether your consultation is offering No work at all on Saturday mornings or No noisy work. We understand that Saturday mornings are currently for Noisy work – in that they are not designated quiet hours. However, it would be possible to designate Saturday mornings as quiet working hours. Indeed, this seems to be what your neighbour local authority, Westminster, has done in banning noisy works in residential areas on Saturday mornings

2.Please note that our original request was for no noisy works on Saturday mornings next to residential areas. We would not presume to affect working throughout the City as a whole.

We made this request because the numbers of building sites close to the Barbican (and indeed other residential estates/areas) has increased dramatically over the past few years, and is not likely to diminish.

- We are still not asking for Saturday morning noisy working to be banned throughout the City – only in residential areas. If that approach were adopted that would mean that most building sites in the City would not be affected.

- We do not think it should be too difficult to identify "residential areas." Although there are some small developments of flats throughout the City, the vast majority of the City's residential accommodation is clustered in some well-defined areas. At its crudest you could use the wards of the City that are designated as "residential wards", but the criteria could be more nuanced than that – after all contractors have to discuss with Environmental Health sensitive sites (including residences) that might be affected by their work, and so presumably they have to identify them. And the introduction to your consultation says that variations to [standard] hours may be approved for works where impacts are expected to be low; are in locations where there are no affected neighbours or for safety, logistics or engineering reasons. Variations may be refused if the impacts

on neighbours are considered high and cannot be mitigated or previous variations have not been fully complied with." So you already make judgements about how close sites are to residences.

3.We have a major concern that the outcome of the consultation could result in residents being worse off than they are now.

If the decision is to ban Saturday morning working altogether and add an extra hour to the standard hours of Monday to Friday then we accept that theoretically we would not be worse off than before.

But if the decision is to designate Saturday morning working as quiet hours and to add an extra hour to the standard hours for Monday to Friday then that actually extends the working period for construction sites. And though residents would see some benefit on Saturday mornings (reduced noise and disturbance), that would outweighed by major disbenefits during the week as work extended longer into the evening (or earlier into the morning).

A continuing risk is that removing Saturday morning working would lead to more requests for variations to allow Saturday noisy working. We would seek assurances that more variations would not be granted simply because of any change in the standard hours.

4.Our preference is for our original request – ie No noisy working (by implication quiet working only) on Saturday mornings for sites that are next to residential areas. And no more hours during the week. This has the following advantages:

a)It means that most of the City can continue as before on national standard hours. It only affects a minority of sites.

As your consultation points out, much of the City is quieter on Saturdays and it seems a shame to prevent contractors from using that time – where it won't disturb people.

b)It keeps the City in line with national standard hours – with only one minor exception, which is not a precedent because Westminster has a similar provision.

c) Within residential areas contractors can still work – but to the quiet hours regime.

We note that the Construction code says in 3.1 "Protecting City businesses, residents and other noise sensitive premises (e.g. schools) from noise and vibration impacts of construction sites is essential to the City's continuing reputation as an excellent place to live, work and to do business."

Banning noisy work on Saturday mornings in residential areas would give tangible effect to the desire to keep the City as an excellent place to live, at minimal cost to the rest of the City. A regime that worked fine 10 years ago no longer does so because of the increased numbers of building sites around the Barbican and other residential areas.

Yours sincerely

XXXXX, chair BA

XXXXX, chair BA Planning Subcommittee

**Response from Unite Union**

Dear XXXX,

Further to your email below, which has been passed to me, please see Unites response below.

*'Saturday morning working on major construction sites has been the norm for many years within the City London and as such many construction workers now consider earnings on a Saturday to be a normal part of their wages. It therefore follows that any ban on Saturday working will result in a reduction in wages for many construction workers. The sudden introduction of such a ban also has the potential to result in some clients reconsidering the feasibility of building in the City of London and thus adversely effect the level of construction active within the City.*

*Another consideration is that certain activities associated with the construction process require road closures. Due to this need some type's of work can only be carried out on a Saturday or Sunday, it would therefore be necessary to have some sort of licence/exemption scheme in place, so as to allow for this.*

*Unite believe that working hours should be family friendly and that a properly planned project should not require Saturday working to be standard, we would therefore support such a ban. However, in order to minimise disruption and hardship to workers, while also allowing clients to prepare for such a ban Unite believe any such ban should be phased in.'*

Regards

XXXXX

Unite the Union

**Response from City Property Association (CPA)**

CPA
City Property Association

City of London Corporation
PO Box 270
Guildhall, London
EC2P 2EJ

By email: publicprotection@cityoflondon.gov.uk

26 July 2018

**RE: Consultation on Saturday Morning Construction Works – Code of Construction Practice**

Dear Sir / Madam,

I am writing on behalf of the City Property Association (CPA). As you may be aware, the CPA is a membership body for the leading owners, investors, professional advisors and developers of real estate in the City of London. I attach a list of the 160 member companies we represent.

Thank you for providing the opportunity to comment on the principle of ending or revising the 'standard hours' working arrangements for Saturday (9am to 1pm) in the City of London. As an Association, we strongly oppose any changes to the current construction working hours, which are vital to ensuring the timely completion of developments and infrastructure projects in the Square Mile.

The City of London is Europe's leading centre for financial and professional services. There are over 24,000 businesses based in the City (2017), with the area contributing £49.2 billion to the national economy, equivalent of 23.4% of UK GVA (2016). There is market demand for a steady flow of new and refurbished office space that can accommodate a range of businesses, respond to ever-changing occupier demands and support modern working practices. Indeed, over the past three decades 70% of the office stock in the City of London has been redeveloped, as the area evolves to cater for changing workstyles, emerging sectors and makes the limited space in which it operates more efficient.

The City of London's success as a preeminent global business centre is reliant on its high quality and ever-evolving development pipeline. The City Corporation's own ambitious plans to dramatically accelerate its own cultural offer through Culture Mile, and the delivery of enhanced public realm and the creation of new public spaces, would all be at threat from any alterations to current construction working arrangements.

CPA
City Property Association

As an industry, we are committed to investing and developing high-quality schemes that create and sustain jobs in the City of London; deliver world-class buildings and public spaces; and contribute to the funding of infrastructure through CIL, S106 and other developer contributions. However, these construction projects often have tight timetables to meet occupation deadlines and ensure economic viability. Removing the option of Saturday morning from the construction timetable will have a major impact on the timely delivery, and as a result, the viability of commercial development in the City.

As well as the financial impact of restricting Saturday working, longer construction timeframes prolong the inevitable impacts of construction - such as noise and vibration - on local residents, workers, schools and visitors to the Square Mile.

Furthermore, the vast majority of pedestrians and cyclists that enter the area do so for work (483,000 people) between Mondays and Fridays. Despite much-needed interventions by the City Corporation to make local streets safer and healthier - such as Bank on Safety and the proposed Eastern City Cluster Area Strategy – the City's streets and public spaces can often become congested during the working week.

The option of well-timed Saturday deliveries of construction plant and materials, particularly for those items which require full or partial road closures (such as cranes), means that there is less of an impact on safety, air quality and traffic congestion during the working week.

We strongly urge the Planning and Transportation Committee to retain the current Saturday working hours for the City of London. These hours are standardised across London and cities across the country, areas with far higher residential populations than the City of London.

Yours sincerely,

Dan Scanlon
Vice President of City Property Association

The City Property Association is a company limited by guarantee in England
(Company Registration Number: 8256281 | VAT Registration Number: 905640703Z)
5th Floor, St Albans House, 57-59 Haymarket, London SW1Y 4QX
Tel: 020 7630 1782 | Fax: 020 7630 8344 | www.citypropertyassociation.com

CPA
City Property Association

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JLL
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Kajima Properties
KJ Tait Engineers
Knight Frank LLP
KPMG
Laing O'Rourke
Landsec
LaSalle Investment Management
Legal & General Property
Linklaters LLP
Lockton Real Estate

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London Real Estate Advisors LLP
M3 Consulting
Macfarlanes LLP
Make Architects
Malcolm Hollis LLP
McLaren Construction Ltd
MDA Consulting
Meinhardt (UK) Ltd
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Momentum Transport Planning
Montagu Evans LLP
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Oakmont construction Ltd
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Pell Frischmann
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TLT LLP
TP Bennett
Transport for London
Trehearne Architects
Tuffin Ferraby Taylor

Wilkinson Eyre
Workman LLP
WSP
WYG

**Appendix Two: Public Consultation Questionairre**

City of London Corporation

Construction Work Activities on Saturday in the City of London

Consideration of the impact of Saturday construction

The City Corporation is reviewing the existing 'standard hours' arrangements for Saturday mornings for construction type activities. We are asking for comments as widely as possible so that our elected Members are aware of your views when considering this matter.

Introduction

The high level of development in the Square Mile, including major office redevelopments in the east and infrastructure projects has the potential to have significant environmental impacts on occupiers of nearby premises. Protecting City businesses, residents and other noise sensitive premises (e.g. schools) from noise and vibration impacts of construction sites is a necessary part of ensuring the City is an excellent place to live, work, learn and to do business.

"Noisy" work in this context is usually defined as being *'where audible at the site boundary, or another location agreed by the City, and/or is likely to cause disturbance*. The standard hours for design and planning purposes on sites and construction type activity are set out in the Code of Practice for Deconstruction and Construction (the Code) and can be found at www.cityoflondon.gov.uk/noisestrategy, and include 'quiet hours' as stated below.

'Standard hours' currently permitted for **noisy** work are normally as follows:

- 08:00 - 18:00 hours (Monday to Friday);
- 08:00 - 13:00 hours (Saturday);
- No noisy working is permitted on Sundays, Bank or Public Holidays. Within the standard hours there are 'quiet hours' (normally 1000-1200 and 1400-1600 Mondays to Fridays) to protect commercial neighbours in normal working hours.

Outside *'standard hours'* and during *'quiet hours'* the following noise generating activities are not usually permitted where the activities are likely to cause disturbance:

- Cutting using power tools;
- Breaking out using power tools;
- Other noise generating activities, depending on the specific location of site and neighbours.
- The use of impact fasteners;
- The loading of heavy materials;
- Other noisy activities, depending on the specific location of site and neighbours, deemed unacceptable by Environmental Health Officers (EHO).

"Other noise generating activities" may depending on the circumstances include, for example, erection and dismantling of scaffolding and cranes, road resurfacing, vehicle movements.

Allowing some hours of noisy working on Saturdays can have the effect of reducing the overall time taken for projects to complete and for any disturbance to last for a shorter overall period. However, this needs to be balanced against amenity for those in the area.

Noisy work outside of the ‘standard hours’ or during ‘quiet hours’ may currently be permitted where this is aligned with the needs of local neighbours and City businesses. When requests from contractors for variations to hours of work are made the typical matters considered include the proximity to residential properties, places of worship or hospitals. Variations to these hours may be approved for works where impacts are expected to be low; are in locations where there are no affected neighbours or for safety, logistics or engineering reasons. Variations may be refused if the impacts on neighbours are considered high and cannot be mitigated or previous variations have not been fully complied with.

Saturday work for construction activity is considered the industry norm and has been accepted nationally. It helps in practical ways as, for example, fewer people and vehicles are on the street at weekends so there are less public safety implications with works, and it is easier to move large vehicles and loads on streets. Projects use the additional hours to carry out works which speeds up the completion of projects and reduces the length of impact on neighbours.

Impact of Saturday Working

The City has been asked to consider the principle of ending or revising the ‘standard hours’ working arrangements for Saturdays.

Consultation Questions

For the City Corporation’s elected Members to assess this issue we request responses to the following question starting on the next page: -

All responses should be returned to

Address

Web link

By XXXXXXXXX

Thank you for your time and help.

| 1. Do you think the existing Saturday permitted hours for noisy construction work activity (08.00-13.00) should continue? | | |
|---|---|---|
| Yes | No | No Opinion |

| 2. Do you think that, unless permitted in emergencies or upon special application (such as for public safety reasons, or where local neighbours would prefer it to speed up the project overall), there should be no noisy works permitted on Saturdays? | | |
|---|---|---|
| Yes | No | No Opinion |

| 3. Do you think that if noisy construction works were not permitted on Saturdays, there should be an extra hour of noisy construction work permitted on Monday-Friday, from 18.00 until 19.00? | | |
|---|---|---|
| Yes | No | No Opinion |
| If so, why? | | |

| 4. Do you think that, unless permitted in emergencies or upon special application as in question 2, that noisy Saturday construction work should be partially permitted, e.g. specific times, locations, away from residential clusters, alternate weekends, etc.? | | |
|---|---|---|
| Yes | No | No Opinion |

| i. If yes, please state what should be permitted: |
|---|
| |

| 5. Do you think you or your organisation would be affected if noisy construction work was not permitted on Saturdays? | | | |
|---|---|---|---|
| Positively affected | Negatively affected | Not affected | No Opinion |
| If so, How? Answer below | | | |

| 6. Are you or have you been affected by noisy Saturday construction work activity? | | | |
|---|---|---|---|
| Positively affected | Negatively affected | Not affected | No Opinion |
| If so, How? Answer below. | | | |
| | | | |

| 7. Are you responding to this consultation as an individual or as an organization? | |
|---|---|
| Individual (Q9) | Organization (Q8) |
| 8. If you're responding as an Organization, | |
| i. What is the name and postal address of your organisation and the nature of its interest in Saturday construction works? Answer below. | |
| | |
| ii. How many people does your organisation represent? Answer below. | |
| | |
| iii. How many people were involved in taking the decision on how your organisation should respond to this questionnaire? Answer below. | |
| | |

| 9. If you're responding as an individual, | | |
|---|---|---|
| i. Please provide your name and postal address including your full postcode below. | | |
| | | |
| ii. Please tick all boxes that apply to you: | | |
| Resident within CoL postcode | Owner of business within CoL postcode | Person working within CoL postcode |
| Person visiting destination in CoL | Person visiting destination in CoL | Please Circle appropriate |

| 10. Does the issue of noisy Saturday construction works have any impact on you as an individual, group or organisation by reason of any of the following characteristics:<br>Please Circle | | | |
|---|---|---|---|
| Age | Disability | Gender reassignment | Pregnancy & Maternity |
| Race | Religion or belief | Sex | Sexual Orientation |
| *If so, what is the impact? Answer below.* | | | |
| | | | |
| | | | |

| |
|---|
| 11. Do you have any comments, evidence or proposals (including alternatives) that you wish us to consider regarding the issue of noisy Saturday morning construction works and/or any of the questions asked above?<br><br>If so, please set them out below. |
| |

Many thanks for your help in responding to this consultation.

# Data Protection Privacy Notice

The City of London Corporation (City of London) is a registered data controller in respect of processing personal data under the relevant data protection legislation. This includes the Data Protection Act 1998, Data Protection Act 2018 and the General Data Protection Regulation (GDPR).

The City of London's Data Protection Officer is the Comptroller and City Solicitor.

The City of London fully respects your right to privacy, and any personal information you provide as part of this survey, will be processed for the purpose of informing this consultation, and to contact you in relation to progress of the Saturday Construction working consultation, and other compatible public engagement activities.

Any personal data provided by you, for these purposes, using this survey, will be processed by Survey Monkey (the 'processor') on behalf of the City of London, and in accordance with the City of London's instructions, the requirements of the EU – U.S. Privacy Shield, and their own privacy policy (https://www.surveymonkey.com/mp/policy/privacy-policy/).

Where it is necessary to share personal data for these purposes, the City of London will ensure the appropriate technical and organisational safeguards are in place, with regard to the processing of personal data, and will ensure that personal data is not used by third parties for marketing purposes, without your consent.

The personal data processed by the City of London, and by the processor, for the above-mentioned purposes, is done so on the legal basis of your consent. Should you wish to withdraw your consent, at any stage, please put your request in writing to the City of London. Unless you withdraw your consent, the City of London will continue to process your personal data for as long as you remain

interested in the Saturday Construction working consultation.

You have the right to request a copy of your data, ask us to make changes to ensure that it is up to date, ask that we delete your information or object to the way we use your data. To do this please email information.officer@cityoflondon.gov.uk or write to Data Protection Officer, City of London, PO Box 270, Guildhall, London, EC2P 2EJ.

The City of London will not share your personal data with any other third parties, for any other purposes, unless legally obliged to do so. More information about data protection, and your rights in relation to personal data, is available from the website of the Information Commissioner's Office, www.ico.gov.uk.

## Appendix 3 – Discussion and Analysis of Options Considered

The City's consultation on the standard noisy construction hours suggested options in relation to the noisy construction working times and sought respondents' views on further potential partial permissions that require the City's consideration in forming the final recommended option.

The information below forms the detailed analysis of the options considering the available evidence base, the consultation outcomes, the equalities analysis and advice from the officer working group.

Construction works have a significant impact on the densely populated City of London and its residents, workers and visitors. Each option has benefits and disbenefits to sections of the City's population and hence a balanced approach is sought.

### a. No Change

Responses to the public consultation gave a clear indication that the majority of respondents do not wish to see a change to the current noisy working arrangements with 62% of respondents stating that noisy Saturday working should continue between 0800 and 1300, 35% felt that noisy Saturday works between 0800 and 1300 should not continue and 3% gave no opinion.

Those wanting no change expressed the need for noisy construction to occur on a Saturday to ensure a flow of timely completions to developments and infrastructure projects to meet demand, avoid congestion, avoid safety conflicts with pedestrians, avoid lengthening overall programmes, keep costs viable. There was a general acknowledgement of the difficulties of constructing in the City of London in terms of narrow streets, density of development and balancing the needs of neighbouring occupiers both residential and commercial.

The number of complaints about construction noise occurring on Saturday morning between 0800 and 1300 is low at 6 received in this period for the whole of 2017 out of 373 construction noise complaints received in total for the City of London, see appendix 4. Caution should be given to drawing conclusion from these figures as it may be that affected persons choose not to complain when disturbed.

Site observations of construction works on Saturdays shown in appendix 5 have shown that the City is a very noisy place with deliveries, filming, traffic and ventilation often the dominant acoustic factors in site observations. The sites monitored were often undertaking works that would not be possible on a weekday due to pedestrian movements such as crane erection and scaffolding. Most sites were operating in accordance with the Code although some did require intervention which demonstrates the need for additional monitoring and enforcement to be carried out.

The air quality data analysed in appendix 6 currently shows lower concentrations of pollutants occurring on a Saturday in the City of London than on a weekday. Undertaking construction vehicle movements on a Saturday when there is less congestion results in fewer emissions than undertaking the same movements on a weekday.

The development pipeline data shows that there is a strong demand for all types of accommodation in the City of London with total occupational demand at the end of Q2 2018 for offices (active & potential) totalling 10.22 million sq. ft. For the same period agents reported total office availability at between 5.30 million sq. ft and 8.30 million sq. ft. Any removal of Saturday noisy working hours would significantly affect the supply of all types of accommodation as construction firms estimate for large schemes there would be an addition to overall programme of more than 6 months for larger schemes.

The equalities impact analysis carried out shows that whilst Saturday noisy works have negative impacts on those with protected characteristics there are potential mitigating steps that could reasonably be taken, as follows.

The current Code of Construction Practice seeks to mitigate and minimise noise and noise impacts that could have a significant adverse effect on mental and physical health and wellbeing. It encourages a flexible and site-specific approach with early, frequent and detailed liaison as set out in section of the COP, available in appendix 1 a requirement followed by amended Schemes of Protected Works which are a requirement of planning conditions. Planning authorities are required to follow a prescribed approach to public consultations on planning applications, anyone can respond, and all representations are taken into account. The current approach acknowledges the negative impacts of construction and seeks to balance the needs of all stakeholders whilst enabling the City to maintain its status as a world class centre of business and finance. The current approach meets or exceeds current best practice, considers previous case law and is based on British Standards. The enhancements in the 2017 8th edition of the Code are yet to be fully realised as the proposed monitoring levy implementation will begin in earnest on commencement of schemes mid 2019.

The Code introduced for the first time several new measures in sections 2, 3 and appendix L available in appendix 1 of this report that will help mitigate adverse construction impacts more effectively;

- A schedule of monitoring costs contributed to by the developer to ensure better long-term environmental management and this will enable a more proactive approach to monitoring and enforcement of any breaches by a new team of City Officers.

- A stronger approach to air quality impacts from Non-Road Mobile Machinery through registration of all plant on a London database which is audited on site to ensure site equipment meets the best available emissions standards.

- Specific noise reduction technologies such as the requirement for broadband sound reversing alarms.

Taking the above analysis into account the recommended option is for no change to the existing hours for noisy construction works.

Whilst the Code seeks to achieve a balanced approach it is acknowledged that a proportion of respondents felt that the balance it achieves is not the right balance

and that noisy construction works on a Saturday morning 0800 to 1300 affects the ability to rest.

Better signposting to liaison opportunities and consultations on the Schemes of Protective Works are required so residents can make representations on individual schemes and express any individual difficulties or concerns they may have. In addition, a more rigorous approach to monitoring and enforcement is required to ensure the existing provisions are complied with.

**b. No noisy construction works in standard hours on Saturday**

Responses to the public consultation exercise on the principle of banning noisy construction activity in standard hours on a Saturday give a clear indication that the majority of respondents do not support such a change.

Of those 272 respondents that do support no noisy works being permitted on Saturdays the clear majority are residents of the City of London. The primary opinion expressed was the effect of noisy Saturday morning works on the ability to rest and on mental and physical health. A number of respondents described that they have been living adjacent to sequential construction works for over 10 years and that construction is a permanent feature of living in the City of London.

15% of respondents stated that noisy construction works had impacted them under a protected characteristic, the majority of which stated age as their affected characteristic with significant proportions stating disability and pregnancy and maternity. A smaller proportion stated religious belief citing Saturday as the Sabbath and noise affecting church services.

The City of London has at any given time 40 to 45 large construction sites active that would be affected. The development pipeline is shown in appendix 8 showing how future developments would be affected if no noisy working on Saturdays was permitted. An effect of this option would be that there would be more active construction sites at any one time as developments would take longer to complete, estimated by the industry of in excess of 6 months. Demand for completed office developments is high and currently supply does not meet the demand, this option would affect the ability to meet future demand for office space.

The officer working group advised that much of the work conducted on a Saturday for construction, demolition and street works is programmed as such to avoid peak pedestrian times and congested roads. Officers advise that if such a prohibition is imposed that it would be necessary to permit by way of variation to standard hours much of the work that currently is programmed as it would be necessary due to safety or engineering practicalities such as scaffolding, cranes, works over highway and pavements. By way of example, in 2017 the City's own contractor Rineys undertook £13.5m of construction work on the Highway. On average Rineys utilise 4 to 5 gangs every Saturday to undertake tasks that are problematic and /or restricted for health and safety reasons in the week. It should also be noted that most resurfacing operations are undertaken at the weekends for health and safety reasons, whilst minimising congestion impact.

As such because of the necessity to approve works for engineering, congestion or health and safety reasons and the legal duties for statutory undertakers to undertake repairs to their infrastructure those adjacent to construction sites or street works would not experience a real difference in the acoustic character of the area if a ban were imposed and there would be a significant new resource required by the City of London in examining applications and approving or refusing these.

Of those that do not support such a prohibition the commonly cited issues are the effect on overall programme, cost to developers and the construction industry, the need for specialist works to continue during these times, difficulties of coordination, safety, negative impacts on the wider economy of London.

The Royal Borough of Kensington and Chelsea (RBKC) has taken the position in its Code of prohibiting noisy Saturday works Borough wide and as such the permitted hours for all works audible at the site boundary are:

Monday to Friday:  8am to 6pm:

At no time: Saturdays, Sundays and Public Holidays

All 'high impact activities' (includes all demolition and concrete-breaking works) are further restricted:

Monday to Friday 9am to noon and 2pm to 5:30pm

At no time on Saturdays, Sundays and Public Holidays.

RBKC does not apply quiet hours.

RBKC has a very different proportion and distribution pattern of residences to the City of London with 4.68 square miles, 18 wards and home to 155,700 residents who are located in areas that are majority residential. and as such is not comparable with the City of London with 9000 residents located throughout, see map in appendix 4.,

Considering the outcome of the consultation and the evidence base available, and taking into account the steps proposed for seeking to mitigate negative impacts of Saturday noisy working on those with protected characteristics, the option of a prohibition on noisy construction works on Saturdays between 0800 and 1300 is not recommended for the City of London.

**c. Additional hour Monday to Friday 18:00 to 19:00**

48% of respondents stated there should not be an additional hour of noisy work added Monday to Friday, 44% felt there should and 8% gave no opinion. Respondents felt that the extra hour proposed may help, but that Saturday working was preferred overall and that an extra weekday hour may result in more disturbance to residents.

The evidence gathered does not provide an argument to support this option and as it is not preferable to the majority of respondents it is not recommended for further consideration.

## d. Partial permissions

### i. Change standard Saturday noisy hours City wide to 0900 to 1400

This option was put forward by several consultation respondents as an alternative partial permission.

Construction companies and developers in following the City's COP on occasion consult with residents and often apply to the City to amend their standard Saturday noisy hours from 0800 to 1300 to 0900 to 1400 to give residents an hour respite on a Saturday morning with the hour added in the early afternoon so works programmes are not affected. Developments and street works in the Barbican area have implemented this adjustment in hours in the past and ongoing.

The data gathered showed no disbenefits in relation to air quality, development pipeline or noise complaints with this option. As this option was not the subject of specific consultation with the construction industry it is not known if they will express concern over any disbenefit to them, it is possible there will be a negative effect on construction workers finishing later on a Saturday as it may impact family life.

A positive effect could be demonstrated in the equalities analysis in that an hour of quiet time in the earlier part of the morning, would be available at a time when many residents, irrespective of protected characteristics would be at home and at rest and thus could serve to mitigate negative impacts of Saturday noisy working on those with protected characteristics..

This option presents an alternative option to 'no change' with residents across the City benefiting whilst still allowing development to continue.

### ii. Not permitting noisy works near residential areas

The option of restricting noisy works on a Saturday in "residential areas" has been considered following the Barbican Associations representation. The main difficulty with implementing this option is defining a "residential area". The City has residential clusters as described in planning policy, but these are mixed use areas where the residential element forms part of but not all of the land use.

The City also has substantially "residential wards" for electoral purposes (Portsoken, Queenhithe, Aldersgate and Cripplegate).

However, residential properties are distributed with greatly varying degrees of intensity and numbers (in some cases low intensity and numbers), throughout the whole of the City's area. It would be unfair and potentially discriminatory to protect residents in areas of higher residential concentrations but not all the City's residents.

The distribution of residential premises can be viewed on the City's mapping tool:

http://www.mapping.cityoflondon.gov.uk/geocortex/mapping/?viewer=compass

Westminster does take this approach in their Code of Construction Practice due to their residential population density lending itself to being able to determine which of

its areas that developments occur in are predominantly residential. Westminster covers an area of 8 square miles with 20 wards and is home to 225,000 residents.

Westminster's permitted hours of work for any works that are audible at the site boundary are:

Monday to Friday: 8.00am to 6.00pm

Saturday: 8.00am to 1.00pm

In residential areas noisy works associated with a development or basement excavation (demolition, piling and earthworks) will be limited to weekdays from 0800 to 1800 hours, unless otherwise agreed. Noisy working is not permitted on Sundays and Bank Holidays. Residential areas are not defined and are decided on a case by case basis. Westminster do not apply quiet hours.

This option is not recommended as it is not possible to define residential areas and it has the potential to be discriminatory.

**Appendix 4 Construction noise complaint data 2017**

Table 1. Total noise complaints construction, street works, and demolition received by COL, by day of the week and by 2-hour time window in 2017 (graph on next page).

| Day of week | Source | 00-02 | 03-05 | 06-08 | 09-11 | 12-14 | 15-17 | 18-20 | 21-23 | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Monday | Business | | | | 7 | 9 | 4 | | 1 | 21 |
| | Resident | 1 | | 6 | 5 | 4 | 2 | 3 | 5 | 26 |
| Monday Total | | 1 | | 6 | 12 | 13 | 6 | 3 | 6 | 47 |
| Tuesday | Business | | | 3 | 18 | 13 | 5 | | | 39 |
| | Resident | 1 | | 2 | 9 | 6 | 4 | 10 | 11 | 43 |
| Tuesday Total | | 1 | | 5 | 27 | 19 | 9 | 10 | 11 | 82 |
| Wednesday | Business | | | 1 | 9 | 12 | 5 | | 1 | 28 |
| | Resident | 3 | 1 | 2 | 7 | 5 | 1 | 7 | 8 | 34 |
| Wednesday Total | | 3 | 1 | 3 | 16 | 17 | 6 | 7 | 9 | 62 |
| Thursday | Business | | | 3 | 8 | 8 | 2 | | | 21 |
| | Resident | 3 | | 1 | 4 | 1 | 3 | 2 | 10 | 24 |
| Thursday Total | | 3 | | 4 | 12 | 9 | 5 | 2 | 10 | 45 |
| Friday | Business | 1 | | | 11 | 6 | 4 | | | 22 |
| | Resident | 4 | 1 | 1 | 3 | 2 | 3 | 4 | 5 | 23 |
| Friday Total | | 5 | 1 | 1 | 14 | 8 | 7 | 4 | 5 | 45 |
| Saturday | Resident | 5 | | 9 | 2 | 9 | 6 | 3 | | 34 |
| Saturday Total | | 5 | | 9 | 2 | 9 | 6 | 3 | | 34 |
| Sunday | Resident | | | 9 | 34 | 4 | 5 | 1 | 5 | 58 |
| Sunday Total | | | | 9 | 34 | 4 | 5 | 1 | 5 | 58 |
| Grand Total | | 18 | 2 | 37 | 117 | 79 | 44 | 30 | 46 | 373 |

Graph 1 - Total noise complaints construction, street works, and demolition received by COL, by day of the week and by 2-hour time window in 2017

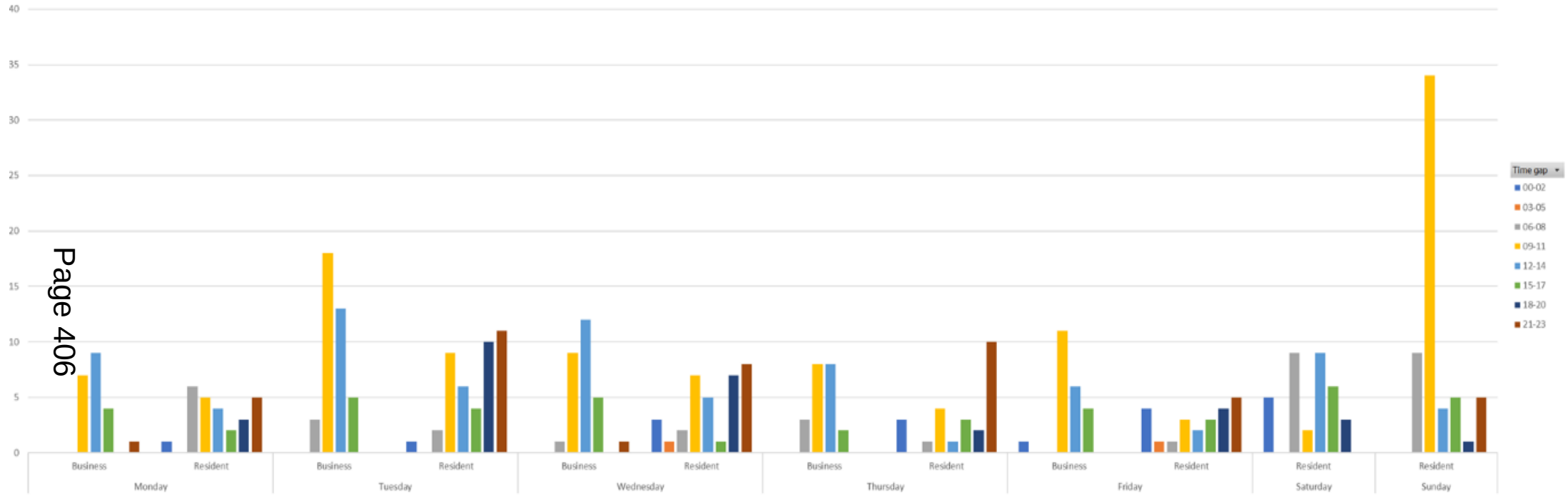
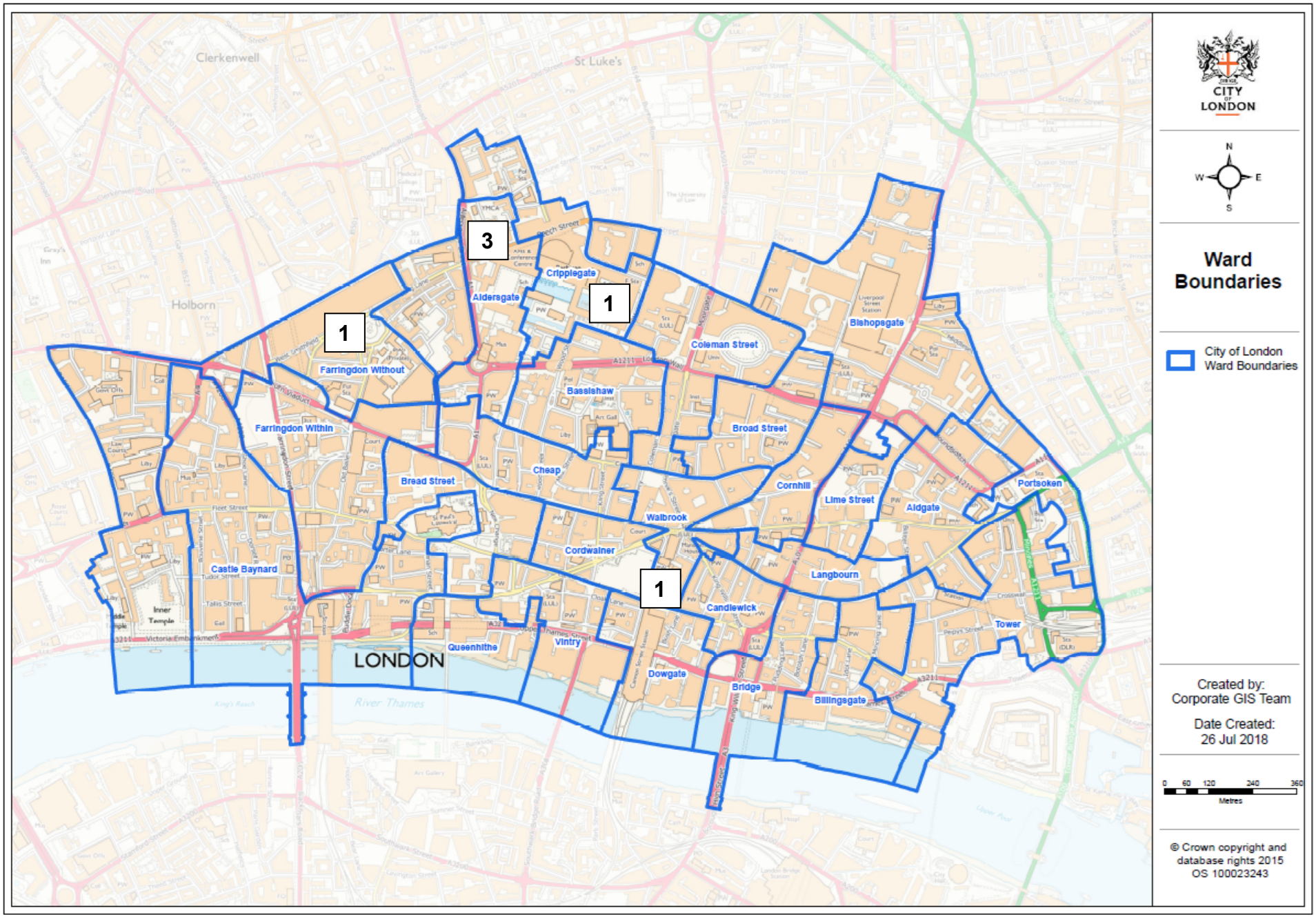


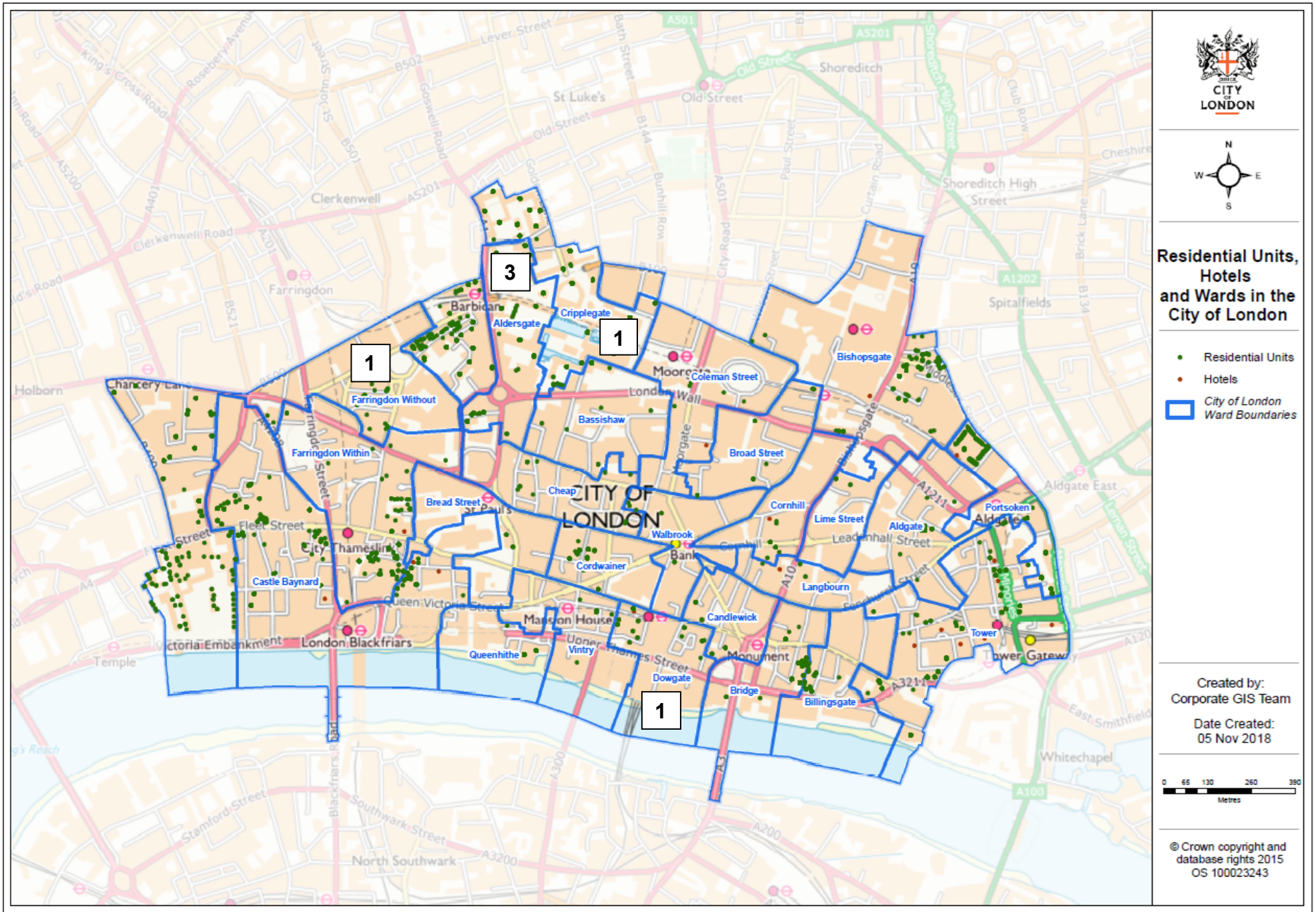
Table 2 – All construction demolition and street works noise complaints received by COL on Saturday mornings in standard noisy working hours for 2017 (8am-1pm) by ward.

| Construction/Demolition/Street works complaints received on Saturday Mornings (8am-1pm) | | | | |
|---|---|---|---|---|
| **Date received** | **Time received** | **Source** | **Noise type** | **Ward** |
| 14/01/2017 | 10:06 | Resident | Street works | Dowgate |
| 11/03/2017 | 10:55 | Resident | Construction | Aldersgate |
| 25/03/2017 | 08:25 | Resident | Street works | Aldersgate |
| 25/03/2017 | 08:50 | Resident | Street works | Aldersgate |
| 17/06/2017 | 08:10 | Resident | Construction | Cripplegate |
| 17/06/2017 | 08:12 | Resident | Construction | Farringdon Within |

Map 1 – All construction demolition and street works noise complaints received by COL on Saturday mornings in standard noisy working hours for 2017 (8am-1pm) by ward.



Map 2 – All construction demolition and street works noise complaints received by COL on Saturday mornings in standard noisy working hours for 2017 (8am-1pm) by ward, showing residential and hotel address points.



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# Appendix 5 – Summary observational analysis of construction and street works sites 2018

| Date | Site | Location of monitoring | Time | Noise Data | Comments |
|---|---|---|---|---|---|
| 24th March 2018 | Compass / ISG Walsingham House - Crutched Friars | outside 39 Crutched Friars | 07:55 | 59.2dB 1min *LAeq | taken before noisy works started on Crutched Friars, fan noise from Hilton dominant |
| | | | 08:07 | 77.1dB 8min LAeq | noise of only the lorry being used taken |
| | | | 08:17 | 73.6dB 10min LAeq | lorry switched on and off, no noise from ISG at the time |
| 24th March 2018 | 35 Vine Street | outside 3 America square | 08:27 | 72.8dB 15min LAeq | at least 2 breakers being utilised for breaking on Crosswall element of site, taxi and vans kept parking in front of me |
| 24th March 2018 | 10 Fenchurch Avenue / 80 Fenchurch Street | outside East India Arms | 09:12 | 66.7dB 3min LAeq | longer monitoring not possible as Lloyds Register were testing their fire alarm system |
| 24th March 2018 | 22 Bishopsgate | St Michaels alley | 09:32 | 62.4dB 10 LAeq | monitoring not representative of this location - there were filming activities being set up in this area, there were many more people than I would normally expect in this location |
| 24th March 2018 | BSCU - Cannon Street / King William Street | 1 Abchurch Yard | 09:54 | 63.9dB 20min LAeq | concrete lorry onsite |
| 24th March 2018 | Rhatigan's - 111 Cannon Street | The Bell, Bush Lane | 10:40 | 66.2dB 5min LAeq | dominant noise from the traffic on Cannon Street and delivery vehicles on Bush Lane |
| 24th March 2018 | Queens Bridge House | Queens Quay | 10:49 | 73.2dB 5min LAeq | traffic noise from Upper Thames Street was the dominant source, very little activity taking place on Queenhithe side of the street |
| 24th March 2018 | Thames Tideway Tunnel | Temple House Apartments - Tallis street | 11:14 | 70.8dB 10min LAeq | pile driving activities very audible from the River |
| 24th March 2018 | Knight Harwood - 90 Fetter Lane | 95 Fetter Lane | 11:34 | 62.6dB 10min LAeq | mobile crane working in Fetter Lane at the time |
| 24th March 2018 | 24-30 West Smithfield | 32 Cock Lane | 11:54 | 65.4db 10Min LAeq | concrete works taking place on site. |
| 24th March 2018 | 55 Gresham Street | Guildhall West Wing Reception | 12:19 | 58.8dB 5min LAeq | no noisy works audible from site - dominant noise source was traffic |
| 24th March 2018 | 52 Lime Street | Creechurch Lane / Leadenhall Street | 12:33 | 67.5dB 5 min LAeq | dominant noise from the traffic on Leadenhall Street |
| 13 April 2018 | Crossrail / 100 Liverpool Street | The Railway Tavern / Old Broad Street | 08:00 | 65.4dB 10 min LAeq | dominant noise source is drilling into concrete and cutting which was from Finsbury Circus. Station announcements also very audible. |
| 13 April 2018 | 21 Moorfields | Willoughby House Highwalk | 09:15 | 54.3dB 10 min LAeq | Traffic noise was the most dominant noise in this area, as well as scaffolding activities in Fore Street |
| 14 April 2018 | Bart's Close | 43 Bart's Close | 09:38 | 55.1dB 6-minute LAeq | stopped monitoring due to phone call from highways - general site noise audible |
| 14 April 2018 | 24-30 West Smithfield | 12 Cock Lane | 09:59 | 76.5dB 8:43 Minute LAeq | Concrete lorry in situ undertaking mass pour |
| 14 April 2018 | 70 Farringdon Street | 5-7 Andrew Street | 10:20 | 59.9dB 10min LAeq | hoist most dominant noise in this area, along with traffic from Holborn circus. |
| 14 April 2018 | 2-6 Cannon Street | Festival Gardens | 10:57 | 60.7dB 10 min LAeq | traffic noise dominant noise source |
| 14 April 2018 | Rineys - Queen Street / Queen Victoria Street | Calico House, Watling Street | 11:15 | 68.5dB 12.15 LAeq | generator from Rineys Site was the most dominant noise source along with the cutting of stone. |
| 14 April 2018 | Rattigan's / Bennetts | Travelodge St Swithins Lane | 11:37 | 66dB 10.33 LAeq | low flying aircraft very loud, sanding and scaffolding activities dominant noise. |
| 14 April 2018 | 32 Lombard Street | George & Vulture | 11:53 | 59.3dB 10min LAeq | general traffic noise, voices from local area walking tour |
| 14 April 2018 | 100 Bishopsgate | City Wall House, 10 Wormwood Street | 12:11 | 72.8dB 4Min LAeq | site not audible over noise of the traffic on Wormwood Street |
| 14 April 2018 | 150 Bishopsgate | Andaz, Liverpool Street | 12:18 | 69.4dB 5 min LAeq | traffic and pedestrian noise is the dominant source in the area, breaking could be heard but could not determine origins. |
| 28 April 2018 | Queens Bridge house, Upper Thames Street | Outside Queen Quay | 07:03 | | Vehicle movements, alarms sounding. Requested alarm turned off till after 08.00 - as per SHVR |
| 28 April 2018 | Thames Tideway Project | Corner of Temple Ave | 07:57 | 65.3dB 10min LAeq | Vehicle movement, machine alarms. Traffic noise louder when moving |
| 28 April 2018 | Knight Harwood, 90 Fetter Lane | Corner of 95 Fetter Lane | 08:23 | 63.0dB 10 min LAeq | Scaffolding being removed, people / work chatter. |
| 28 April 2018 | Site corner of Furnival St / Norwich St | op old pub Furnival ST | 08:40 | 58.8dB 10 min LAeq | Jack hammering, cutting. Traffic noise loud when passing site |
| 28 April 2018 | Multiplex 70 Farringdon St | Holborn Viaduct | 09:00 | | No noise from site. Noise from street works |
| 28 April 2018 | Gilbert Ash, Premier Inn, West Smithfield | outside 32 Cock lane | 09:16 | 72.3dB 10 Min LAeq | Dropping / throwing scaffolding poles. Once was noticed on site, poles were being placed. Spoke to site manager about BPM |
| 28 April 2018 | Bart's area | corner of little Britain near pure gym | 10:03 | 76.8dB 10 min LAeq | Lots of work in the area, road and building. Scaffolding going up by hospital |
| 28 April 2018 | Bart's Close Site | outside 43 Bart's Close | 10:40 | 69.5dB 10 min LAeq | drilling jack hammering |

| | | | | | |
|---|---|---|---|---|---|
| 28 April 2018 | Bernard Morgan House, Golden Lane (closed) | | 11:00 | | |
| 28 April 2018 | 21 Moorfields (Closed) | | 11:10 | | |
| 28 April 2018 | 121 London Wall (no external works) | | 11:12 | | |
| 28 April 2018 | 60 London Wall | opp. Salisbury house | 11:25 | 71.2dB 10 min LAeq | machine noise heard, even over traffic noise |
| 28 April 2018 | 100 Liverpool Street | Outside Railway Tavern | 11:42 | 66.2dB 10 min LAeq | drilling / hammering heard, machinery alarms heard |
| 28 April 2018 | 135 Bishopsgate | | 11:55 | | Minimal noise heard from site, traffic was louder |
| 28 April 2018 | 100 Bishopsgate (rear of site) | 63 St mary Axe | 12:00 | | loud banging heard, removing a crane |
| 28 April 2018 | 22 Lime Street (closed) | | 12:20 | | Not working Leadenhall was closed for filming |
| 28 April 2018 | Queen Bright House, Upper Thames Street | Outside Queen Quay | 12:46 | 72.5dB 10 min LAeq | Hammering from within site |
| 06 October 2018 | Arthur Street | By the monument statue | 08:05 | LAeq 69.6dB, 5-minute monitoring | Predominant noise is the fan/machinery from the works. Other sounds include sirens, cars. |
| 06 October 2018 | Siteworks outside cannon street house / on the side of upper themes street and street works at the top of cousin Lane | Corner of dyers hall | 08:30 | LAeq 77.4, 6 minutes | Arrived on site to contractors using circular saws to cut into the street surface. Once the workers noticed me turn up they switched saws to one that sounded (to me) quieter. |
| 06 October 2018 | Street works on the corner of Dyers Hall | Outside innholders hall | 08:40 | LAeq 76dB, 10 minutes | As I was monitoring another site was set up right next to where I was standing. I then moved down the road to record the new site. The predominant sounds were cutting into the stone as well as some breaking. There was also rests in the noise between cuts etc. |
| 06 October 2018 | Hill House | Pemberton House | 09:25 | LAeq 70dB, 15 minutes | Steel Works drilling in the basement of Hill House, some other unrelated noise events happened too. |
| 06 October 2018 | Works at Lindsey Street | Corner of east market | 10:30 | LAeq 68.7dB, 10 minutes | Rain. There was one digger moving this around, there was also a team doing road resurfacing. Predominant noise was cars. |
| 6 October 2018 | 21 Moorfields | Willoughby House Parking Garage | 11:10 | LAeq59.7dB, 5 minutes | Rain, No Noisy works going on, stood by barbican site wall. Any spikes in noise were from sirens, cars, pedestrians |
| 6 October 2018 | 41/42 London Wall | Other side if the road by Coco Di Mama | 11:24 | LAeq 72.2 dB, 3 Minutes. | Rain, some construction noise but not significant, 54-65 London wall development was also making noise. Most significant was car noise |
| 06 October 2018 | Liverpool Street, Crossrail | Outside the Railway Tavern | 11:50 | LAeq 70dB, 5 minutes | Rain, Drilling noise, pedestrians, whistle from site operator for traffic management reasons, Lorry. |
| 06 October 2018 | Skanska site, Fenchurch Street | outside 3 Tons | 12:10 | LAeq 66. dB, 5 minutes | Rain. Noise from breakout, and cars at top of the street. |
| 13 October 2018 | London Underground, Moorgate Station | Outside London met uni. X: 532739.1 y:181618.3 | 08:14 | LAeq 67dB 5 min | Main noise is road. Other noise is high pitched safety beeps. |
| 13 October 2018 | 45 London Wall | Co Co Di Mama | 08:30 | LAeq 77. 15 mins | Main sounds are traffic beeping. Some banging from site, car horns, site deliveries, Piling/drilling (I could feel vibration from across the road) Some high and low frequency sawing from another nearby site. |
| 13 October 2018 | Crossrail | Outside the railway tavern | 09:00 | LAeq 68.9dB 5 min | deliveries, whistles, beeps, clangs, constant background machine 'whir' pedestrians |
| 13 October 2018 | Broad Street Place Scaffolding | Other side of street | 09:10 | LAeq 70.7dB 10 minute | Some traffic, pedestrians and delivery. Scaffolding not very loud |
| 13 October 2018 | The Denizen | The corner of barbican estate 1st floor next to Breton house | 09:40 | LAeq 63.2dB 10-minute l | Sawing, banging. Nothing to significantly disruptive |
| 13 October 2018 | 51 Moorgate / Coleman street | Outside Whitehorse yard | 10:20 | LAeq 66.4dB 10min | predominant noise is generator. Peaks are from metal struts being put down as activity is crane lifting struts to top of building. Nail gun for hoarding as well |
| 13 October 2018 | Leadenhall ST | Pedestrian area opposite | 10:50 | LAeq 66.4dB 3 min | Works mostly inside building. Predominant noise is traffic and pedestrians |
| 13 October 2018 | Gasworks outside 67 Fenchurch street | Side entrance of east India PH | 11:00 | LAeq 75.2dB 10min | Digger moving earth, dropping piping not placing observed. Engines, pedestrians, pipe sawing. |

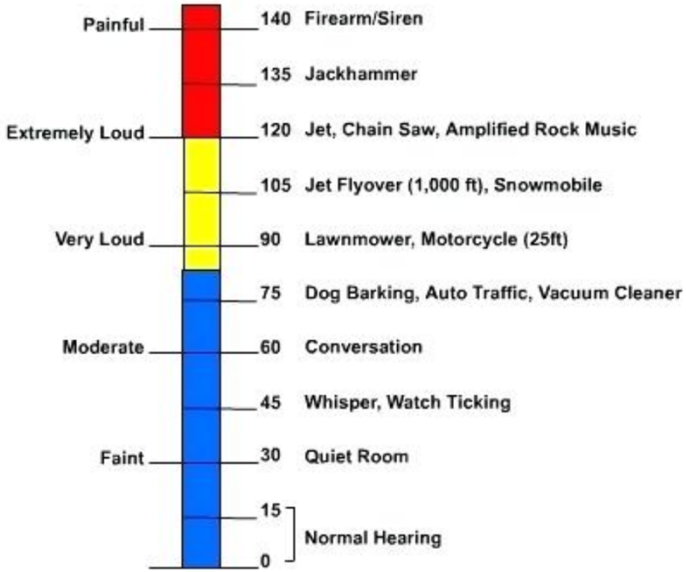


***Leq (or LAeq) is the Equivalent Continuous Sound Pressure Level**

Equivalent Continuous Sound Pressure Level, or Leq/LAeq, is the constant noise level that would result in the same total sound energy being produced over a given period. LAeq is a fundamental measurement parameter designed to represent a varying sound source over a given time as a single number. This number is a measure of the energy contained within the sound at the point of the receiver. This is useful in terms of the potential for sound to damage or disturb and is extensively used in environmental noise standards as well as many other regulations and documents.

Quick commentary: Observational analysis and noise monitoring was carried out across the City on Saturday mornings to better understand what activities are occurring and the noise impacts experienced from the nearest receptors. The observations show that the City is a noisy place and many activities are occurring unrelated to construction which are often the dominant noise sources e.g. traffic, filming and deliveries. The noise measurements taken should be considered in the context of the diagram below that shows the decibel levels for various sounds to give some context to the levels. The levels measured in the City during the Saturday mornings observed are representative of the prevailing background levels made up of all sources (people, traffic, deliveries, events and filming) that the City experiences.

Figure 1. Sound Level Decibel Loudness Comparison Chart.

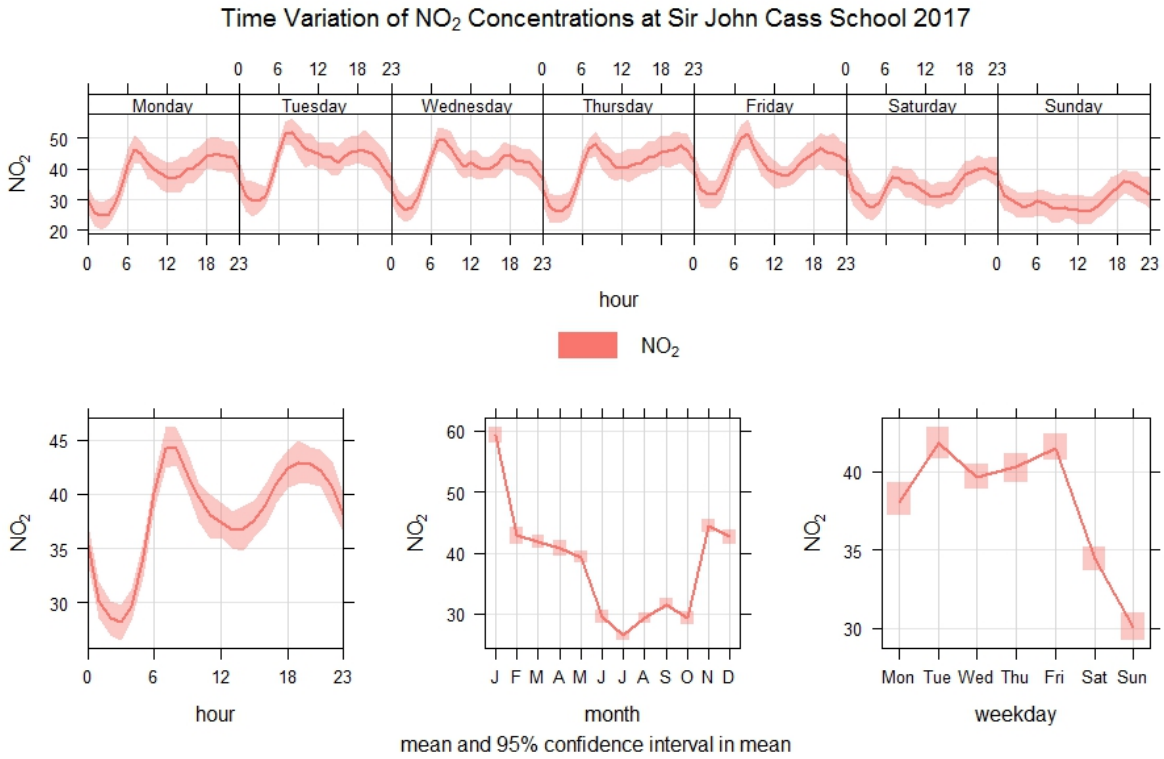


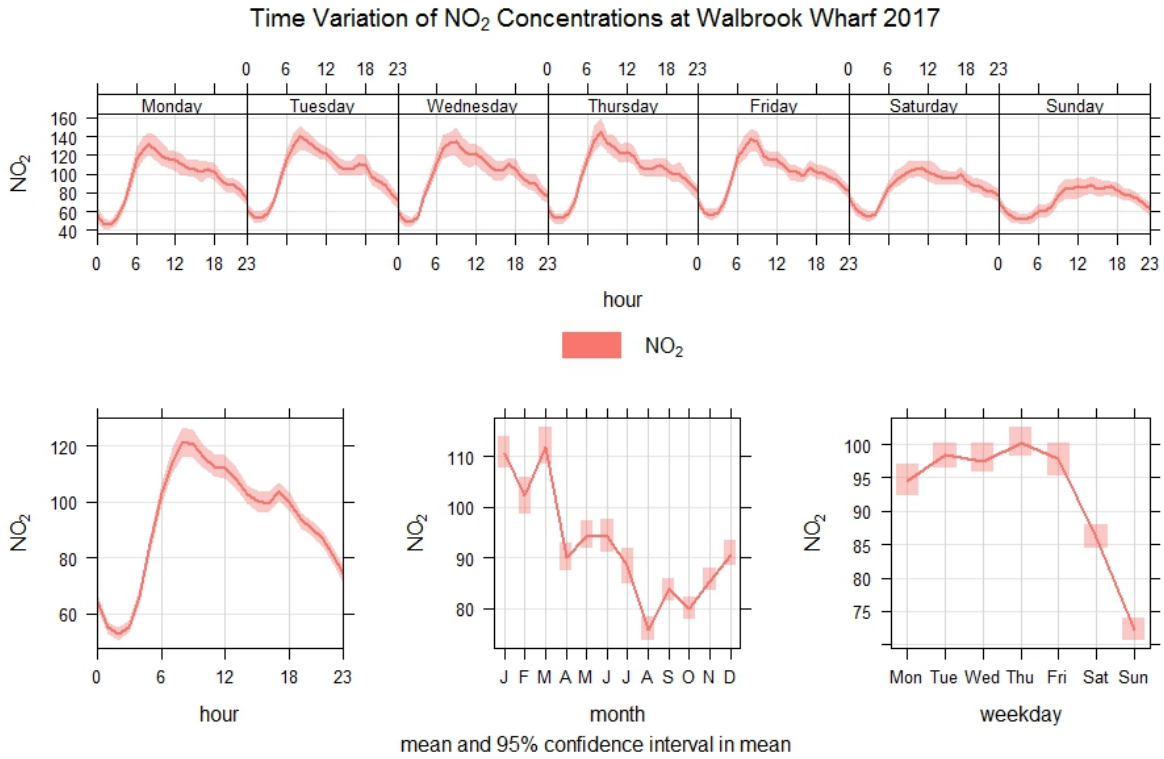
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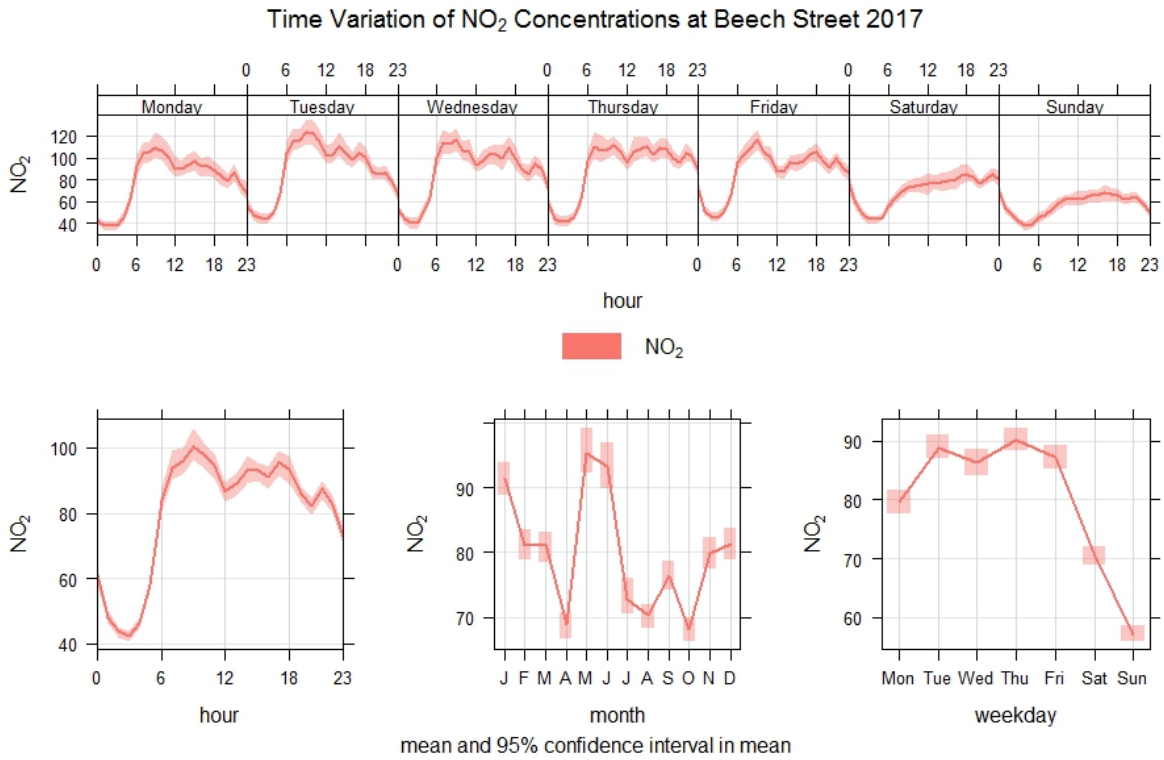
## Appendix 6 - City of London Air Quality Monitoring 2017

The below charts show the hourly, daily, monthly variation in pollution concentrations at each monitoring station, for each pollutant across each of our monitoring stations for the 2017 monitored data.

### Nitrogen Dioxide

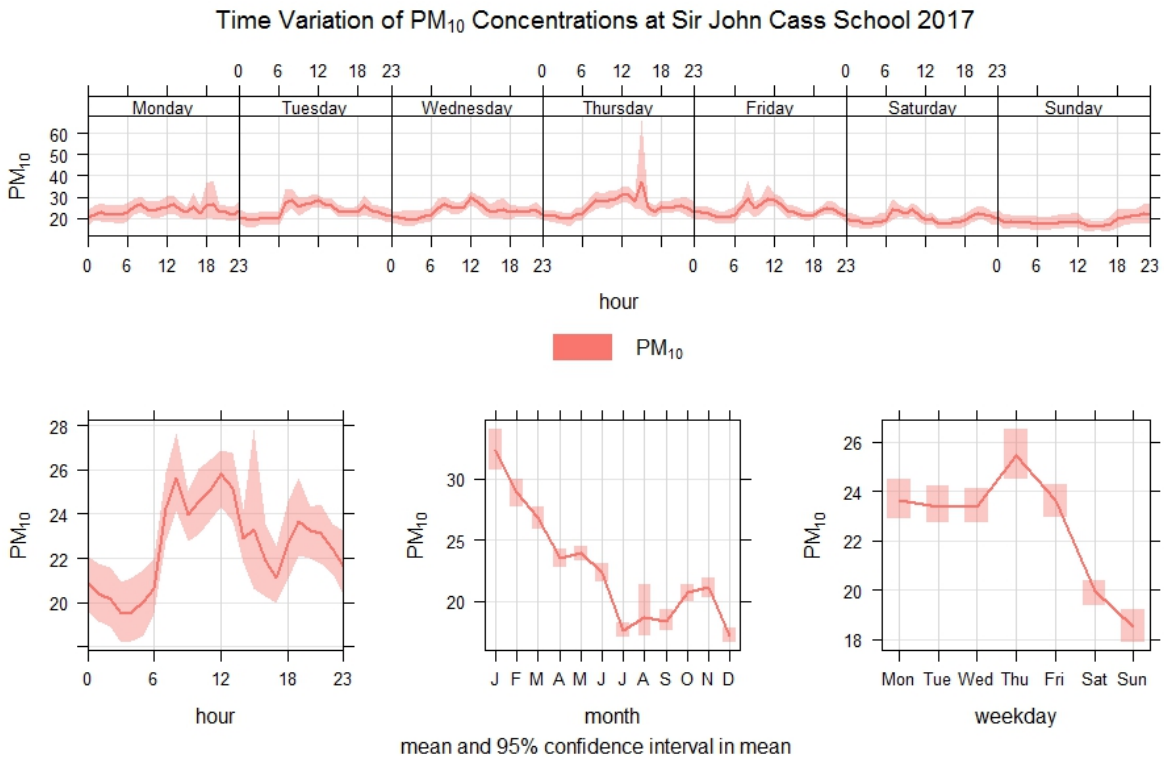


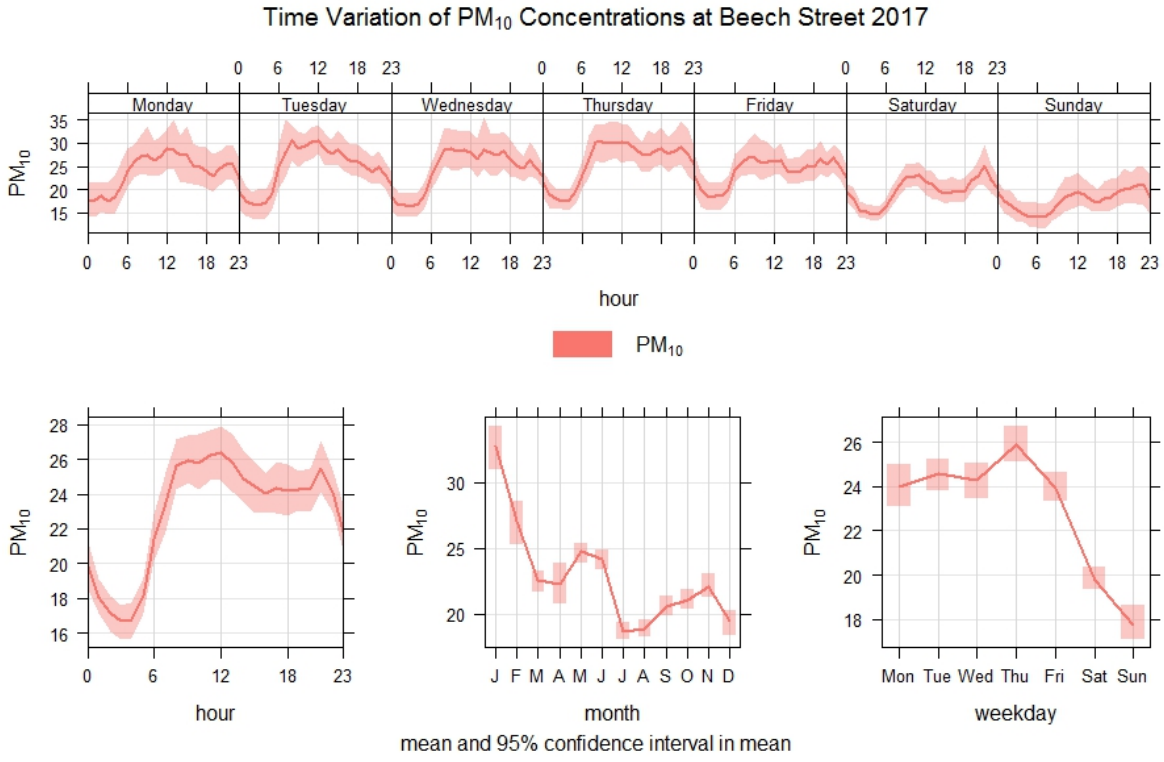


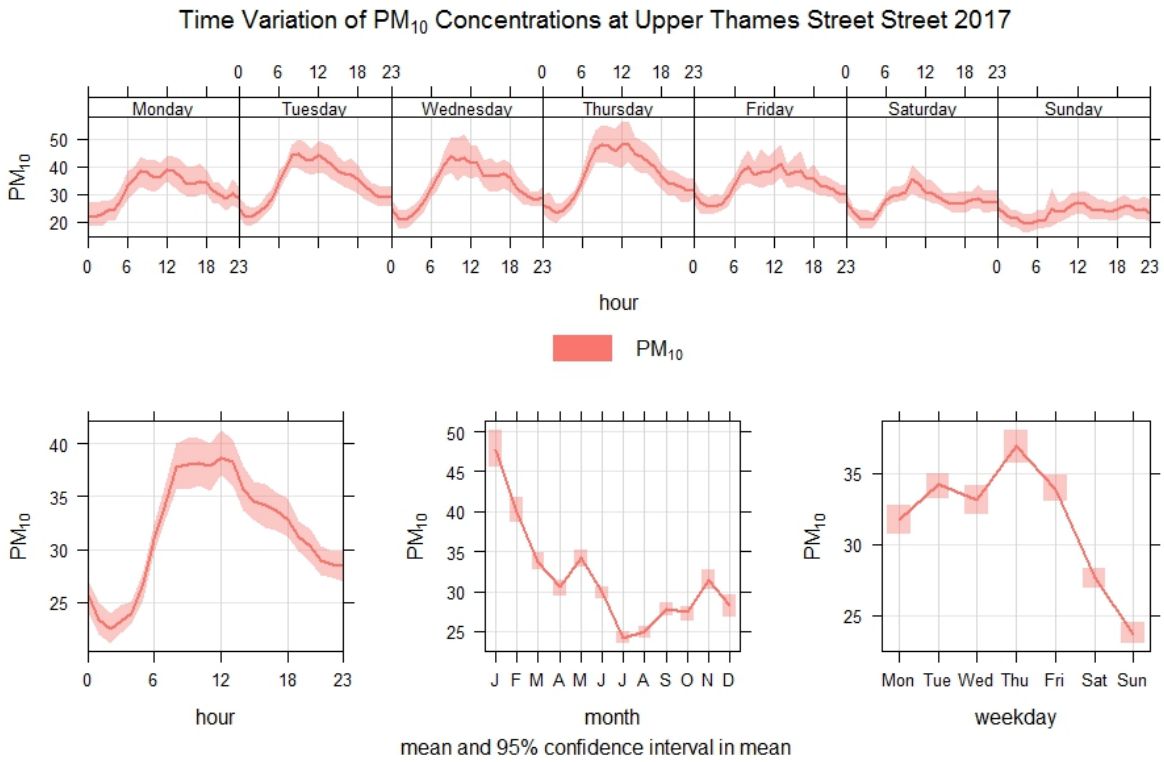




All sites monitoring $NO_2$ clearly show a defined weekday trend in pollution concentrations with weekends having significantly lower concentrations than weekdays.

**$PM_{10}$**

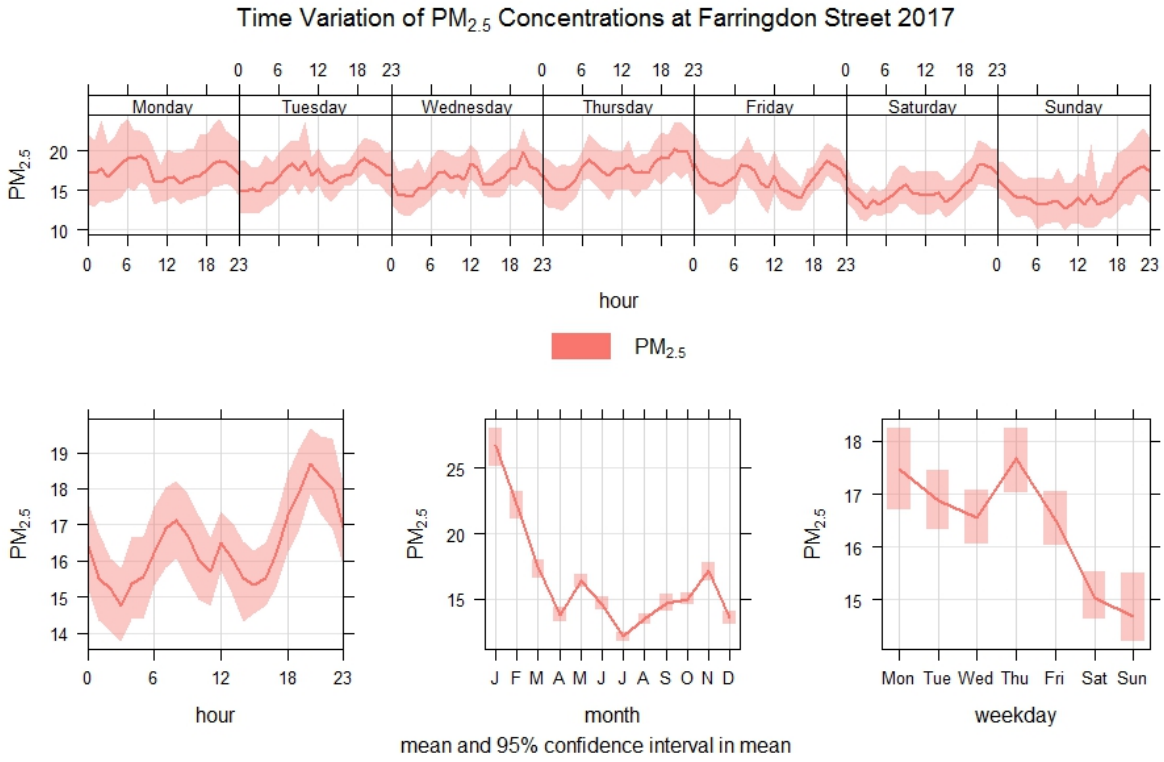

Time Variation of PM10 Concentrations at Sir John Cass School 2017
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
PM10
hour
PM10
month
weekday
mean and 95% confidence interval in mean

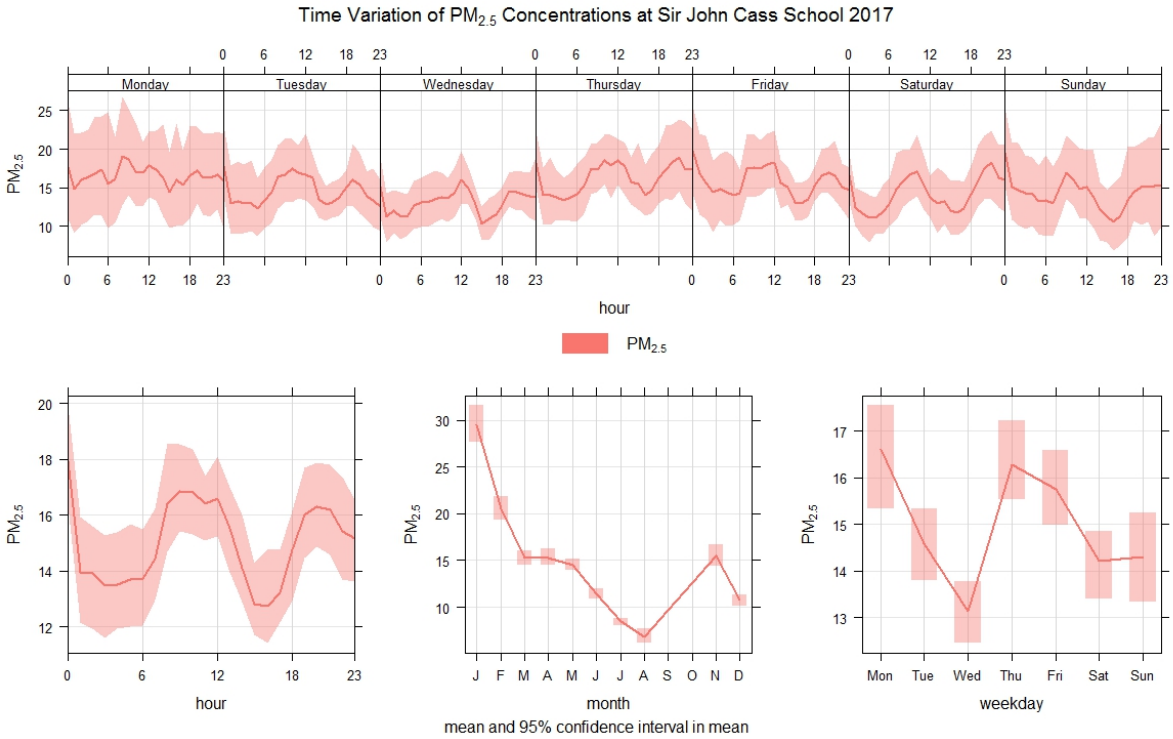

Time Variation of PM10 Concentrations at Beech Street 2017
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
PM10
hour
PM10
month
weekday
mean and 95% confidence interval in mean




The $PM_{10}$ data for 2017 also shows significantly lower concentrations at the weekends across all monitoring sites.

**$PM_{2.5}$**






The $PM_{2.5}$ data for the roadside site (Farringdon) shows the same trend as the $NO_2$ and $PM_{10}$ data however the background site (John Cass School) shows a different pattern possibly as this site is less influenced by traffic emissions.

**Impact of options considered on air quality**

**a. No Change**

The trends above would continue with residents experiencing lower pollution days at the weekend. The construction sector is a priority area for intervention to improve technologies associated with vehicles and plant. It is expected that interventions on Non-Road Mobile Machinery (NRMM) will result in lower AQ emissions from construction sources overall.

**b. No noisy construction works in standard hours on Saturday**

If construction sites were not to operate for noisy works on a Saturday the emissions from the extra delivery vehicles, construction plant and dust emissions from working have the potential to increase concentrations across the city across the week day standard hours, the City's streets are more congested in the week and traffic takes longer to reach its destination leading to more emissions. Construction programmes overall would be lengthened resulting in an increased number of active sites in the City at any one time and hence construction related emissions and mean concentrations could increase. Weekend levels have the potential to be lower although this would be difficult to quantify as the restriction would be for noisy works only, not all construction works.

**c. Additional hour Monday to Friday 18:00 to 19:00**

As in b. above. Weekday concentrations could be higher.

**d. Partial permissions**

**i. Change standard noisy hours City wide to 0900 to 1400**

As above in a. The trends above would continue with residents experiencing lower pollution days at the weekend. The construction sector is a priority area for intervention to improve technologies associated with vehicles and plant. It is expected that interventions on Non-Road Mobile Machinery will result in lower AQ emissions from construction sources overall.

**ii. Not permitting noisy works near residential areas**

As in b. above. If construction sites were not to operate for noisy works on a Saturday near residential areas the emissions from the extra delivery vehicles, construction plant and dust emissions from working have the potential to increase concentrations across the city across the week day standard hours when levels are already higher. Construction programmes overall would be lengthened resulting in an increased number of active sites in the City at any one time and hence construction related emissions and mean concentrations could increase.

## Appendix 7 – Equalities Impact Analysis

Section 149 of the Equality Act 2010, which sets out the Council's Public Sector Equality Duty, provides:

"149 Public sector equality duty

(1) A public authority must, in the exercise of its functions, have due regard to the need to —

a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;

b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;

c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

(2) A person who is not a public authority but who exercises public functions must, in the exercise of those functions, have due regard to the matters mentioned in subsection (1).

(3) Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in

particular, to the need to—

a) remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic;

b) take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it;

c) encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

(4) The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities.

(5) Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to—

(a) tackle prejudice, and

(b) promote understanding. (6) Compliance with the duties in this section may involve treating some persons more favourably than others; but that is not to be taken as permitting conduct that would otherwise be prohibited by or under this Act.

(7) The relevant protected characteristics are—

age;

disability;

gender reassignment;

pregnancy and maternity;

race;

religion or belief;

sex;

sexual orientation.

(8) A reference to conduct that is prohibited by or under this Act includes a reference to—

a) a breach of an equality clause or rule;

b) a breach of a non-discrimination rule.

(9) Schedule 18 (exceptions) has effect."

There are no relevant exceptions in Schedule 18.

In relation to disability, the Council must ensure that it acts in accordance with section 29 of the Equality Act 2010, which provides:

"(6) A person must not, in the exercise of a public function that is not the provision of a service to the public or a section of the public, do anything that constitutes discrimination, harassment or victimisation.

(7) A duty to make reasonable adjustments applies to—

…(b) a person who exercises a public function that is not the provision of a service to the public or a section of the public."

The assessment will set out actions that will be taken to mitigate or minimise any negative impacts, identified as arising from the options considered, on people with protected characteristics. Where mitigating action cannot be taken, or the impacts cannot be wholly mitigated, the reason why will be explained.

| **Recommendation** | **Protective Characteristic** | **Impact** |
|---|---|---|
| 1. No Change to the existing hours of Saturday noisy construction working. | 1.Age | Negative Impact |
| | 2.Disability | Negative Impact |
| | 3.Pregnancy and Maternity | Negative Impact |
| | 4.Religion or Belief | Negative Impact |
| | 5.Sex | N/A |
| | 6.Gender reassignment | N/A |
| | 7.Race | N/A |
| | 8.Sexual Orientation | N/A |
| | 9. Marriage or Civil Partnership (Employment only) | N/A |
| 109 out of 725 respondents stated that they had been negatively impacted in respect of one or more protected characteristics by noisy Saturday working. The most common comments identifying how they had been negatively affected identified noisy works impacting rest and physical and mental health, arising from noise, dust and air quality and lack of two continuous days of respite, with particular negative impact on those who are elderly, disabled, pregnant or who have young children, and children. | | |
| 2. No hours of noisy construction works on Saturday | 1.Age | Positive Impact |
| | 2.Disability | Positive Impact |
| | 3.Pregnancy and Maternity | Positive Impact |
| | 4.Religion or Belief | Positive Impact |
| | 5.Sex | N/A |
| | 6.Gender reassignment | N/A |
| | 7.Race | N/A |
| | 8.Sexual Orientation | N/A |
| | 9. Marriage or Civil Partnership (Employment only) | N/A |
| 109 out of 725 respondents stated that they would be positively impacted in respect of one or more protected characteristics if noisy Saturday working were to cease. The most common comments identifying how they felt they would be positively impacted identified the ability to rest, with particular positive impact on mental health and wellbeing. To a significant degree, in addition, the positive impact identified arose from the removal of the negative impacts they said they | | |

| | | |
|---|---|---|
| presently experienced. It should be noted however that while removing noisy construction works on Saturday would have a positive impact on these respondents with protected characteristics on Saturdays,. the long-term impacts of construction projects taking longer to complete overall, and prolonging the overall period of the identified negative impacts of noisy work, will have negative impacts on those with protected characteristics e.g. increased concentrations of pollutants on weekdays when levels are already high may impact the health of those with protected characteristics as poor air quality has a disproportionate impact on the old and young. | | |
| 3. No Saturday noisy construction hours but an additional hour Monday to Friday 18.00-19.00 | 1.Age | Negative Impact |
| | 2.Disability | Negative Impact |
| | 3.Pregnancy and Maternity | Negative Impact |
| | 4.Religion or Belief | N/A |
| | 5.Sex | N/A |
| | 6.Gender reassignment | N/A |
| | 7.Race | N/A |
| | 8.Sexual Orientation | N/A |
| | 9. Marriage or Civil Partnership (Employment only | N/A |
| The positive impacts on those with protected characteristics of prohibiting Saturday morning noisy work is outweighed by major negative impacts on them e.g. longer overall impacts, rest and relaxation, impact on families, children completing homework, workers required to work very long days during the week as work, and hence the negative impacts of noisy work on them, is extended longer into the evening. | | |
| 4. Partial Permissions – 1. Change standard Saturday noisy hours City wide to 0900 – 1400. | 1.Age | Negative Impact |
| | 2.Disability | Negative Impact |
| | 3.Pregnancy and Maternity | Negative Impact |
| | 4.Religion or Belief | N/A |
| | 5.Sex | N/A |
| | 6.Gender reassignment | N/A |
| | 7.Race | N/A |
| | 8.Sexual Orientation | N/A |
| | 9. Marriage or Civil Partnership (Employment only) | N/A |
| This recommendation would have a positive impact on those respondents with the protected characteristics of age, disability, pregnancy and maternity as they would have an hour of quieter time when it would be more beneficial earlier in the day. The negative impacts detailed by the same respondents in relation to rest and mental health and wellbeing would continue to be stated as the noisy works will continue on a Saturday. The 2 respondents that stated religious belief is impacted would still identify with a negative impact stating that Saturday is the Sabbath. There may be impacts to construction workers that are unstated in the consultation. | | |
| 4. Partial Permissions –2. | 1.Age | Positive |

## Appendix 7 – Equalities Impact Analysis

| | | |
|---|---|---|
| Not permitting noisy works near residential areas. | 2.Disability | Positive |
| | 3.Pregnancy and Maternity | Positive |
| | 4.Religion or Belief | Positive |
| | 5.Sex | N/A |
| | 6.Gender reassignment | N/A |
| | 7.Race | N/A |
| | 8.Sexual Orientation | N/A |
| | 9. Marriage or Civil Partnership (Employment only) | N/A |
| This recommendation, if practicable, would be favoured by those with protected characteristics of age, disability, pregnancy and maternity. The 2 respondents that stated religious belief is impacted would still identify with a negative impact stating that Saturday is the Sabbath. | | |

**Discussion of impact of noisy working on those with protected characteristics, and identification of steps to seek to mitigate those negative impacts..**

It is accepted and acknowledged that noisy construction activities do and will have a negative impact on those with the protected characteristic of age (elderly and young children), disability, pregnancy and maternity, and religious belief. The negative impact arises from the adverse effects of noisy working on physical and mental health, ability to rest, and wellbeing, that some consider Saturday as the sabbath and church services may be affected.

The Construction Work Activities on Saturday public consultation outcomes report at Appendix 2 highlighted the impact the various options would have on protected characteristics (age, disability, pregnancy and maternity, religion or belief, gender reassignment, race, sexual orientation, sex, and marriage or civil partnership (in employment only). The impacts have been identified and are summarised in the table above.

The Local Planning Authority after receiving a planning application, will undertake a period of consultation where views on the proposed development can be expressed. The formal consultation period will normally last for 21 days, and the local planning authority will identify and consult a number of different groups.

The main types of local planning authority consultation are:

Public consultation – including consultation with neighbouring residents and community groups.

Statutory consultees – where there is a requirement set out in law to consult a specific body, who are then under a duty to respond providing advice on the proposal in question.

Any consultation required by a direction – where there are further, locally specific, statutory consultation requirements as set out in a consultation direction.

Non-statutory consultees where there are planning policy reasons to engage other consultees who – whilst not designated in law – are likely to have an interest in a proposed development.

Following the initial period of consultation, it may be that further additional consultation on changes submitted by an applicant, prior to any decision being made, is considered necessary.

Finally, once consultation has concluded, the local planning authority will consider the representations made by consultees, and proceed to decide the

Once a development has been permitted the City's Code of Construction Practice is relevant, Chapter 2 Community Liaison and Consultation requires developers and contractors to identify all neighbours and groups who may be disturbed and disrupted, including places of worship, hospitals, residents, businesses and community centres. Developers and Contractors are required to consult with all those who will be concerned by the construction activities being planned and take their views into account in the preparation of the Scheme of Protective Works (a requirement of planning conditions) which includes construction methods and noisy working hours. Amendments to the Scheme should be made to reflect concerns. For example, in some locations a 9am start on a Saturday is agreed close to residential locations, the schedule for faith services or weddings will be sought and the noisy works programmed around these services or deliveries scheduled to avoid school drop off and pick up times. The liaison takes place before works commence during the planning stages, throughout each stage of the construction programme and supported by at least fortnightly communications. The City's Pollution Control Team oversees compliance with the Code of Practice to ensure all steps are carried out and that as far as reasonably practicable all views are considered in selecting methods and working hours. In addition, the Scheme of Protective Works is submitted as part of the planning process and is available for public comment on the City's planning portal.

The new construction impacts levy introduced in the COP, appendix L will enable a new team of City Officers to be funded whose role will be to proactively monitor and review all sites practices ensuring the COP is complied with. The additional resource will be enabled to enforce where required.

The COP also requires a stronger approach to air quality impacts from Non-Road Mobile Machinery through registration of all plant on a London database which is audited on site to ensure site equipment meets the best available emissions standards.

**Appendix 8 - City Development Tracker and Pipeline map**

**CPAT Office Development pipeline (forecast) vs historic office development completions**

| Period | Sq. ft |
|---|---|
| 2018 to 2023 (inclusive pipeline) | 18,700,000 |
| 2012 to 2017 (inclusive completions) | 10,600,000 |

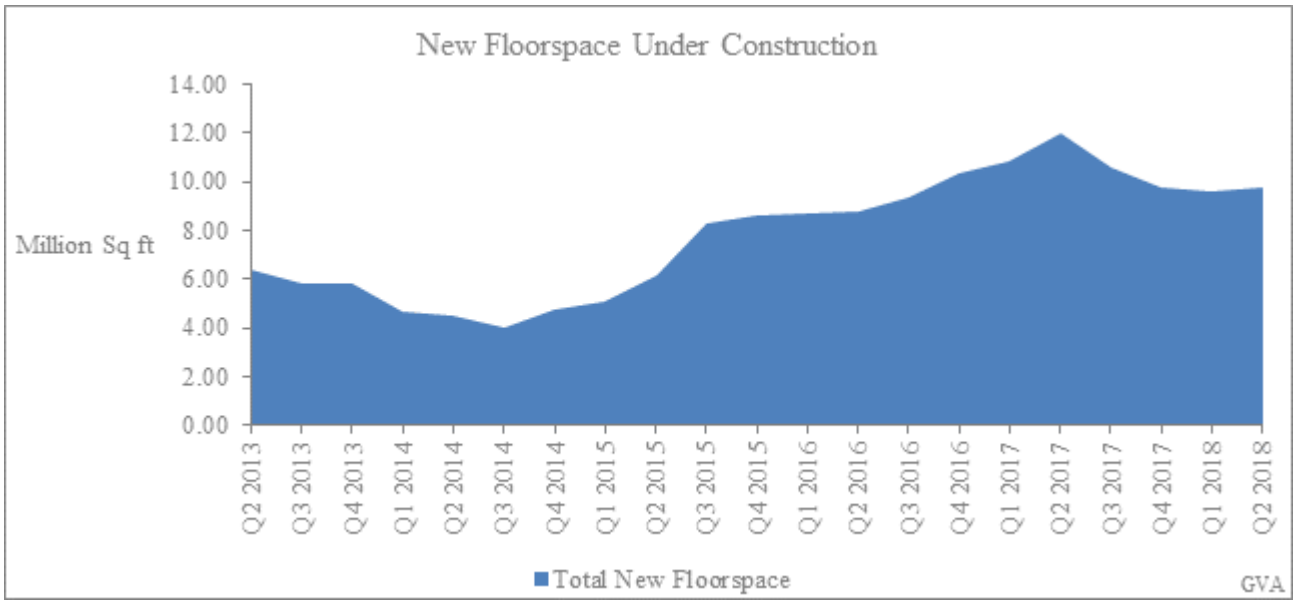
Quick commentary:
Agents reported between 7.77 million sq. ft and 9.80 million sq. ft of office space under construction during Q2. According to GVA (9.80 million sq. ft), construction increased 5% on Q1.

Of the 9.80 million sq. ft under construction, 4.90 million sq. ft is due to complete in 2018, of which 69% is already pre-let.

The largest development under construction in the City is 22 Bishopsgate at 1.2 million sq. ft, due for completion in Q4 2019.

According to CBRE, four developments completed in Q2 totalling 450,800 sq. ft, of which 406,000 sq. ft had already been let. London Fruit & Wool Exchange, E1, was the largest development to complete during the quarter, of which the entire 275,500 sq. ft had been let prior to completion.

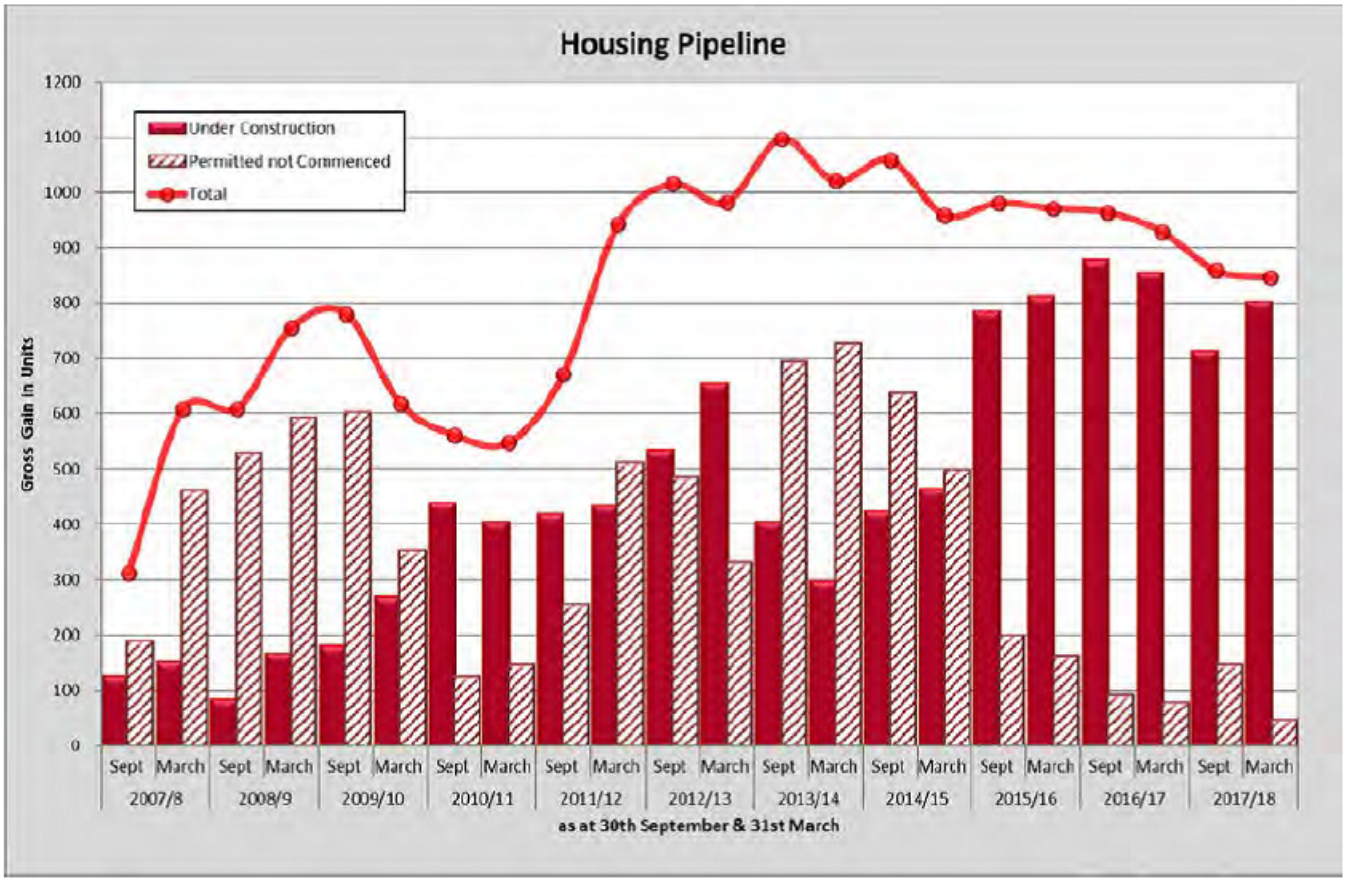
A further 19 developments are due to complete in the second half 2018 totalling 2 million sq. ft, of which 1.1 million sq. ft has already been let or is under offer.




**(Source: CPAT Agents Digest Q2 2018 by Sean Jordan)**

**Housing Development Pipeline**

The Housing Development Pipeline is the housing units under construction and permitted not commenced set out in Graph 6.




**Graph 6: Housing Pipeline by Number of Units**

The total housing pipeline decreased marginally by 12 housing units from 858 as at 30th September to 850 at 31st March 2018. This total remains high in relation to trends since 2008/9. The total pipeline comprises:

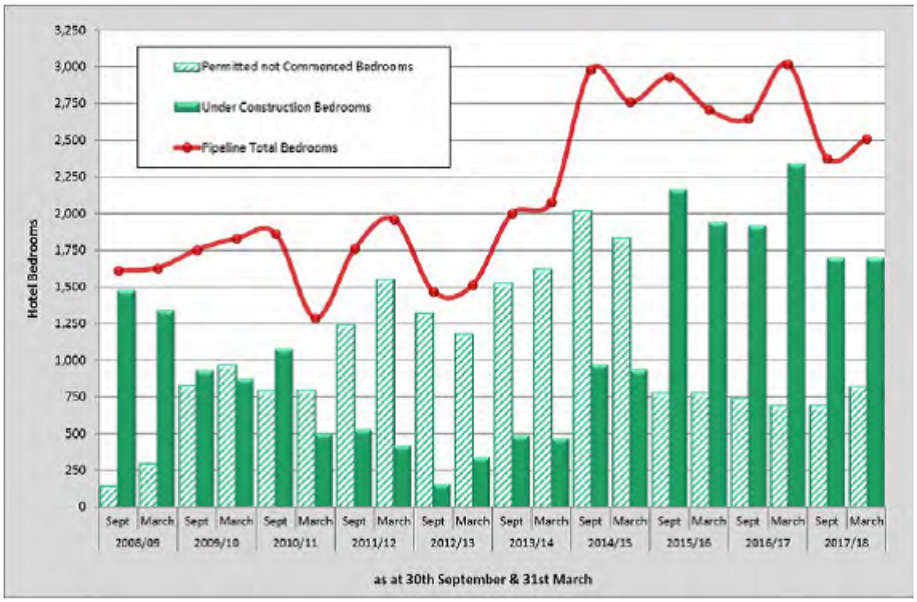
- Under construction: As at 31st March 2018 a total of 800 units were under construction. This has increased by 100 units since 30th September 2017 due to the commencement of a large-scale scheme in the context of the City of London housing supply
- Permitted not commenced: As at 31st March 2018 a total of 46 units were permitted not commenced. This is at a low level primarily due to the high number of units under construction.

In addition to the housing pipeline there was a student accommodation scheme of 619 bedrooms under construction in the East of the City.

**(Source: CoL Development Information 01/10/2017 to 31/03/2018 by Conor Newman – DBE - Tel 020 7332 3787)**

**The Hotel Development Pipeline**

The Hotel Development Pipeline comprises hotel bedrooms units under construction and permitted not commenced. This is set out in Graph 8.




**Graph 8: Hotel Pipeline – Number of Bedrooms**

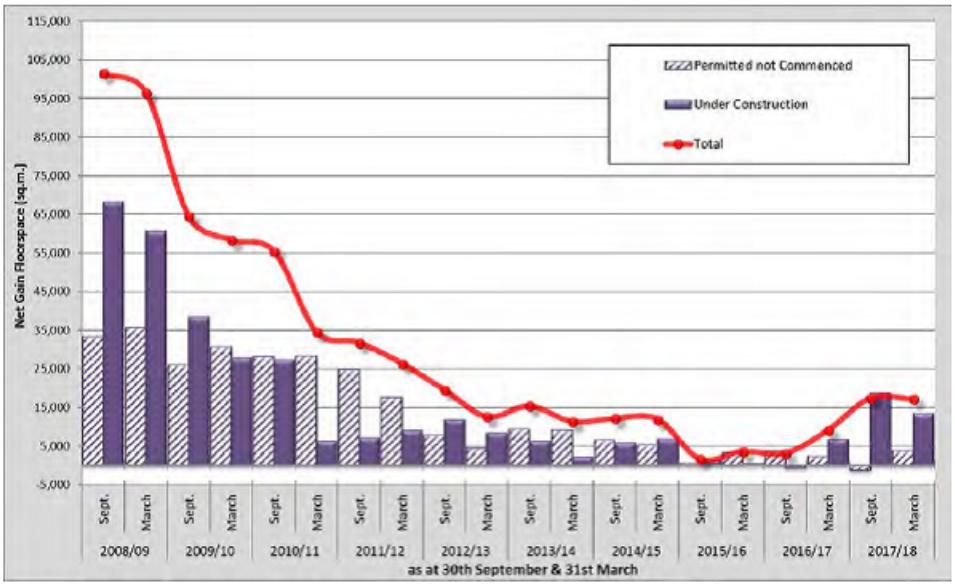
The pipeline comprises of:

- Under construction: The total number of hotel bedrooms under construction remained consistent at 1,690 between 1st October 2017 to 31st March 2018.
- Permitted not commenced: The total number of bedrooms permitted not commenced was 818 as at 31st March 2018, an increase of 132 bedrooms since the 30th September 2017.

**(Source: CoL Development Information 01/10/2017 to 31/03/2018 by Conor Newman – DBE - Tel 020 7332 3787)**

**Retail Development Pipeline**

The Retail Development Pipeline equates to retail development under construction and permitted not commenced. This is set out in Graph 10 which shows the net retail development pipeline measured by floorspace.




**Graph 10: Retail Development Pipeline – Net Floorspace**

- Under Construction: The net floorspace that is under construction decreased from 18,700m2 as at 30th September 2017 to 13,400m2 as at 31st March 2018.
- Permitted not commenced: The net floorspace rose from a net loss of 1,210m2 as at 30th September 2017 to a net gain of 3,800m2 as at 31st March 2018.

**(Source: CoL Development Information 01/10/2017 to 31/03/2018 by Conor Newman – DBE - Tel 020 7332 3787)**

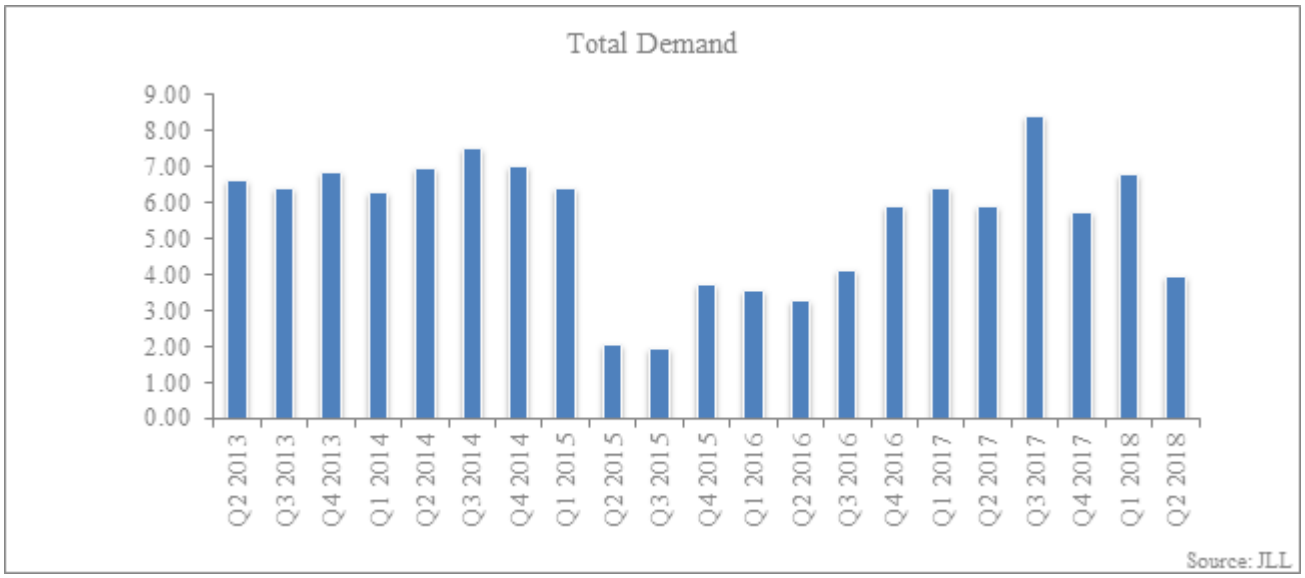
**Demand**

Quick commentary:

According to JLL, total occupational demand (active & potential) totalled 10.22 million sq. ft at the end of Q2. Of the total demand figure, 42% was for lot sizes at 100,000 sq. ft and above, 26% was for 50,000 to 99,999 sq. ft, 29% was for 10,000 sq. ft to 49,999 sq. ft and 3% was for lot sizes sub 10,000 sq. ft.

Active demand at the end of Q2 accounted for 6.47 million sq. ft and potential demand accounted for 3.75 million sq. ft.

**Total occupational office demand by million sq. ft.**




**(Source: CPAT Agents Digest Q2 2018 by Sean Jordan)**

**Availability**

Quick commentary:

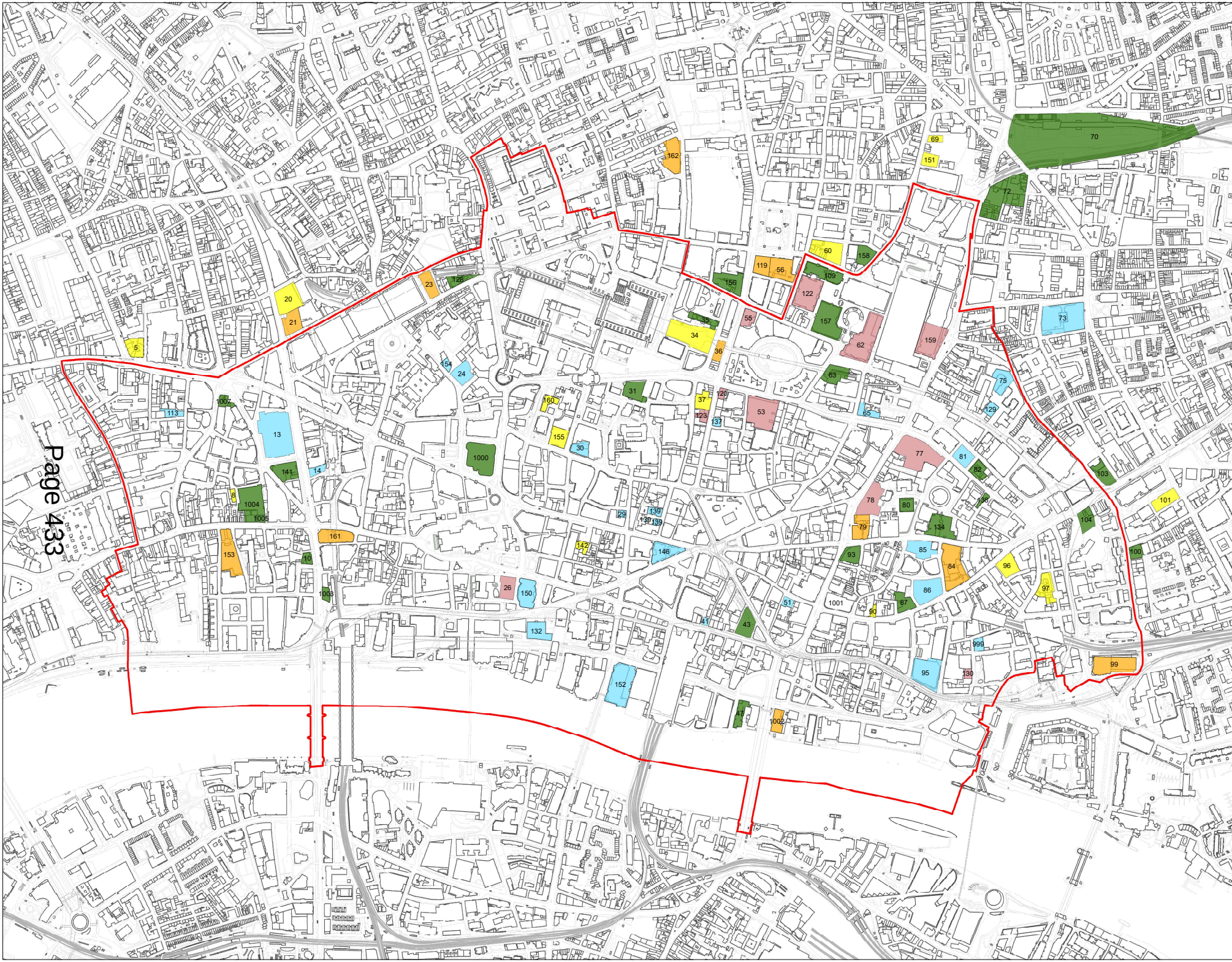
By the end of Q2, agents reported total office availability at between 5.30 million sq. ft and 8.30 million sq. ft.

According to CBRE, availability decreased 10% to 5.60 million sq. ft in Q2 and is 10% below the 10-year average. Second-hand space accounted for 64% of total availability, whilst newly completed space accounted for 12%. Early marketed availability accounted for 24% of total availability.




**(Source: CPAT Agents Digest Q2 2018 by Sean Jordan)**

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CITY OF LONDON
P.G. Wilkinson, BSc MSc MRICS
City Surveyor
CITY SURVEYOR'S DEPARTMENT
CITY OF LONDON
City Property Advisory Team (CPAT)
City Development Tracker
Office New Builds & Refurbishments (Over 10,000ft²)
For more information visit: www.cityoflondon.gov.uk/trackermap
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Prepared by Sean Jordan (CPAT)
Date: 15/10/2018

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**Appendix 9**

**Legal Framework**

**New Roads and Street Works Act 1991**

New Roads and Street Works Act 1991 gives the legal right to statutory undertakers (water, gas, electricity, telecommunications, rail and underground operators) to undertake works to install or maintain their networks. As such flexibility must be given to allow these works as a matter of law. A ban on noisy Saturday works could not apply in these circumstances.

**The Control of Pollution Act 1974 Sections 60 and 61**

The Control of Pollution Act 1974 Sections 60 and 61 deal with the control of noise and 'prior consent for work' on construction sites.

The S60 notice may specify:

- Working practices (e.g. methodology or equipment);
- Working hours;
- Noise limits for the site, possibly including specified hours.

The Act requires that in serving notices the local authority should have regard to:

- Ensuring that "best practicable means" are employed by the Contractor to minimise noise;
- Making the Contractor aware of other methods or plant or machinery that the local authority considers more acceptable; and
- Protecting any 'sensitive receptors' near the site from the effects of noise.

A Section 60 notice may be served by the local authority at any time without consultation with the Contractor or developer. Furthermore, the requirement under a Section 60 notice can be made more onerous if the City receives and upholds complaint in the vicinity. This can have significant implications for the programming and costs of the works.

Failure to comply with a Section 60 notice is an offence without "reasonable excuse" and can lead to prosecution in a Magistrates Court.

The Contractor may apply to the local authority to start work under a Section 61 Agreement. The Agreement must be completed prior to the start of construction work and requires the Contractor (typically in conjunction with their acoustics consultants) to provide detailed information on:

- The works and the method by which they are to be carried out; and
- Measures to minimise noise resulting from the works.

If the City approves the Section 61 application then legally they cannot serve the Contractor with any Section 60 notices throughout the construction programme,

provided that the Agreement is adhered to. This protection can be an attractive approach for sites where noise or vibration is likely to be an issue but is discouraged by the City as it removes the flexibility for the City to later impose stricter controls if required.

Section 61 Agreements can take some time to negotiate, especially for complex construction sites. However, once an application has been submitted, the City must inform the applicant of its decision within 28 days.

**The Planning Regime**

The City also imposes noise control requirements (typically via conditions attached to a planning consent) on a person or company (the Contractor) when they carry out developments. The City of London requires the submission of a Scheme of Protective Works linked to the COP which is site and works specific detailing how the works are to be completed and how Best Practicable Means (BPM) are to be met to mitigate the effects from noise, dust and vibration.

**Infrastructure Schemes Acts and Orders**

Major infrastructure schemes such as Crossrail and Bank Station Capacity Upgrade are consented by way of an Act of Parliament and a Transport and Works Act Order and as such major infrastructure projects sit outside of any ban on noisy construction works on a Saturday.

**Relevant Cases**

Construction works are treated more generously in law than other noise sources as they are a necessary part of the ordinary use and occupation of land and houses. In *Hiscox Syndicates Limited & Anor v The Pinnacle Limited. [2008] EWHC 145 (Ch)* it was said that "…the law takes a common sense view of the matter and, if operations such as demolition and building are reasonably carried on and all proper and reasonable steps are taken to ensure that no undue inconvenience is caused to neighbours, whether from noise, dust or other reasons, the neighbours must put up with it."

It is important that every site is considered in a site-specific assessment of the controls necessary for that site given its location and activities as is the approach in the City's Code of Construction Practice. In *Brentwood BC vs City and Country (Warley) Ltd 2010 JPL 1443,* the Court criticised the council's use of standard conditions, and emphasised that the local authority had to show that it had taken into account measures that were appropriate for that individual site.

**Equality Act 2010**

In coming to any decision Committee Members must comply with their duties under the Equality Act 2010, in particular the public sector equality duty under section 149 and the duty under section 29 not to do anything that constitutes discrimination when providing a service to the public or a section of the public or exercising a public

function that is not the provision of such a service, and to make reasonable adjustments.

In summary, section 149 of the 2010 Act requires the Council, when exercising its functions, to have ‘due regard’ to the need to:

1. Eliminate discrimination, harassment and victimisation and any other conduct that is prohibited by or under the Act (which includes conduct prohibited under section 29);

2. Advance equality of opportunity between people who share a relevant protected characteristic and those who don’t share it;

3. Foster good relations between people who share a relevant protected characteristic and those who do not (which involves having due regard, in particular, to the need to tackle prejudice and promote understanding). The relevant protected characteristics are: age, disability, gender reassignment, pregnancy and maternity, race, religion, sex, and sexual orientation. In respect of the first aim only i.e. reducing discrimination, etc the protected characteristic of marriage and civil partnership is also relevant. Having due regard to the need to ‘advance equality of opportunity’ between those who share a protected characteristic and those who do not includes having due regard, in particular, to: the need to remove or minimize disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic; the need to take steps to meet the needs of persons who share a protected characteristic where those needs are different from the needs of persons who do not share that characteristic, and encourage those who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low. Further, section 149 provides that the steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities. Compliance with the duties in section 149 may involve treating some persons more favourably than others, but that is not to be taken as permitting conduct that would otherwise be prohibited under the Act (which includes breach of an equality clause or rule, or of a non-discrimination rule).

Paragraphs 12 and 13 of the report provide a summary of the equalities material, which is attached at Appendix 7 and also referred to in Appendix 2. A careful consideration of the material itself however is one of the key ways in which Members can show that they have carried out their duty personally to have “due regard” to the relevant matters. Members must therefore carefully consider the material at Appendix 7. In considering that material and all other material contained in and appended to this report, Members must bear in mind all of the parts of the public sector equality duty set out in the previous paragraphs, and the duty not to discriminate and to make reasonable adjustments set out in section 29.

Where it is apparent from the analysis of the information that any of the proposed recommendations, should they be agreed, would have an adverse impact on those with protected characteristics, then any adjustments that would avoid or reduce that effect (mitigating steps) need to be identified and careful consideration then given to whether and if so how they can be implemented.

Members should be aware that the section 149 duty is not to achieve the objectives or take the steps set out in section 149. Rather, the section 149 duty on the authority is to bring these objectives relating to discrimination into proper consideration when carrying out its public functions. There must be a proper appreciation of the potential impact of the decision on the equality objectives set out in section 149 and of the desirability of promoting them. “Due regard” means the regard that is appropriate in all the particular circumstances in which the authority is carrying out its functions. Provided due regard is had in this way, including considering mitigation measures as described above, it is for the authority to decide, taking into account all relevant factors (which may, depending on the circumstances, include the requirement upon the Council to operate within its budget) how much weight to give to the equality implications of the decision.

In exercising its powers in relation to Saturday noisy working, the City (acting here through Committee members) is exercising a “public function”. Under section 29 of the Equality Act 2010, it must not, when exercising a public function, or providing a service to the public or to a section of the public, “do anything that constitutes discrimination, harassment or victimisation” (section 29(6)) and it must make reasonable adjustments (section 29(7)). The duty to make reasonable adjustments arises in relation to disabled persons and under section 20 of, and Schedule 2 to, the Equality Act 2010.

## PLANNING AND TRANSPORTATION COMMITTEE – OUTSTANDING ACTIONS

| Item | Date | Action | Officer responsible | To be completed/ progressed to next stage | Progress Update |
|---|---|---|---|---|---|
| 1. | 9 January 2018<br>23 January 2018<br>26 March 2018<br>8 May 2018<br>29 May 2018<br>10 July 2018<br>26 July 2018<br>11 Sept 2018<br>8 Oct 2018 | **Ludgate Circus**<br><br>The Director of the Built Environment advised that an additional letter would be prepared as a matter of urgency, and gave her assurance that the issue would be treated as a priority. | Steve Presland / Ian Hughes | Further meeting to be scheduled in DECEMBER 2018/early 2019 following installation of cycle SCOOT. | Completed – Letter sent on 9 January and circulated to Members on 10 January.<br><br>Meeting between Chairman, Deputy Chairman and TfL representatives took place on Tuesday 23rd January to discuss this issue.<br><br>The meeting between TfL and CoL safety officers to conduct H7S audit (informal) needs to take place prior to committee and the data exchange be completed.<br><br>Data was exchanged, and CoL have provided written comments back to TfL on their data just before the Easter break. We would expect TfL to respond within the next two weeks.<br><br>Following a further meeting with TfL in the following |

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| | | | | | actions were agreed:<br><br>• TfL Road Safety Auditor to produce collision 'stick diagrams' for the Ludgate Circus junction to identify any prominent accident types.<br>• CoL requested official TfL presence from Enforcement Team to assist in undertaking cycle behaviour training at the junction.<br>• CoL highlighted that it would be beneficial to understand the number of informal / formal movements being undertaken at the junction and by what mode e.g. pedestrian, cycle, car. This will require surveys being conducted on the Ludgate Circus junction. Furthermore, as there is no data prior to the construction of this junction a secondary junction of similar nature will be required to be surveyed |

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| | | | | | to provide a comparison. TfL to investigate practicality and cost of surveys and report back.<br><br>Members informed at 8 Oct meeting that updates had been received from TfL on their actions as follows:<br><br>• Collision diagrams had been provided and these highlighted that the main cause was left turning vehicles in conflict with pedestrians crossing informally.<br>• TfL agreed to allow the City to use their Enforcement Team to assist in undertaking cycle behaviour training at the Ludgate Circus Junction.<br>• TfL agreed to look in to the cost of surveys on the junction and report back.<br>• A review of signal timings at the junction would take place in the next few months. |

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| | | | | | City Officers to continue to press TfL to identify ways in which these informal crossing routes could be made safer and more pedestrian friendly.<br><br>UPDATE: TfL have suggested that due to budget constraints, doing an informal crossing analysis at Ludgate Circus would need a solid business case.<br><br>Since it is the City community that is at risk, we are looking at opportunities to deliver this ourselves.<br><br>The City recently used camera analysis that can be programmed to identify different road users for a behaviour change study at Queen Street. Officers are planning to deploy similar technology at a busy pedestrian crossing to get some data about the causes of pedestrian inattention.<br><br>In light of TfL's response, we are therefore proposing to use this technology at Ludgate Circus. |

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| | | | | | The details over where the cameras can be mounted are being worked on.<br><br>We continue to keep in touch with TfL officers about the junction |
| 2. | 9 January 2018<br>23 January 2018<br>20 February 2018<br>26 March 2018<br>8 May 2019<br>29 May 2018<br>10 July 2018<br>26 July 2018<br>11 Sept 2018<br>8 Oct 2018 | **Lane Rental**<br><br>In response to a question concerning 'lane rental', officers advised that the Government was currently consulting on this initiative and undertook to report back to the Committee following the outcome of this. | Ian Hughes | DECEMBER COMMITTEE | The consultation has now closed and DfT are analysing the feedback. As a minimum, they will need to publicise a decision before the current Lane Rental trials with TfL and Kent County Council expire in March 2019.<br><br>UPDATE: Dft have now published their guidance on such schemes – Officers to report in Dec on the implications. |
| 4. | 9 January 2018<br>20 February 2018<br>26 March 2018<br>29 May 2018<br>10 July 2018<br>26 July 2018<br>11 Sept 2018<br>8 Oct 2018 | **Blackfriars Bridge Underpass**<br><br>A Member expressed concern regarding the poor state of the underpass at Blackfriars Bridge and asked who was responsible for the cleaning and maintenance of it. | Steve Presland | ONGOING | A detailed response was sent to the Member on 09/01/2018.<br><br>The City are Monitoring it, increasing inspections, scheduled and adhoc cleaning as required is now in place.<br><br>Put a request in with TfL with a view to arranging a site meeting to agree an allocate clear responsibilities and |

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| | | Officers advised that there were overlapping responsibilities between the CoL and TfL and discussions were taking place with TfL to address the problem.<br><br>A Member questioned why Transport for London were reluctant to allow the CoL Corporation to take over responsibility for the underpass and asked if officers had engaged at a senior level.<br><br>Members expressed concern at the state of the underpass and the fact that people were likely to try and cross the road as an alternative to using it which was extremely dangerous. | | | explore CoL taking over TfL responsibilities.<br>Officers undertook to report back on the options available.<br><br>Members noted Officers had reached an agreement with TfL who had agreed to replace the tiles in the Blackfriars Bridge underpass and review the lighting there. Officers would undertake a deep cleanse of the underpass and invite local ward Members and the Chairman and Deputy Chairman of the Port Health and Environmental Services Committee to visit. Members could then consider whether a programme for routine deep cleansing of the underpass would be feasible going forward.<br><br>Members were informed that TfL had undertaken tar repairs in the underpass and that a deep clean of the area had been undertaken by City Highways. TfL had undertaken to look at the issue of rough sleeping here alongside the City's outreach team. |

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| | | | | | UPDATE: Officers met with Ward Member representative and Chairman of Port Health and Environmental Services on 26 October to review the effectiveness of action taken to improve the subway cleanliness. TfL are responsible for the fabric of the subway and the Corporation for general cleaning.<br>Following officer engagement with TfL they have now repainted much of the subway, replaced much of the lighting with LED units and carried out repairs to tiling. The subway gulleys have been cleared and are now working effectively. In general it was felt that the subway appeared brighter and cleaner although some further improvements are needed and officers have written to Tfl seeking their agreement to action these.<br>In discussion with Members present it was felt that the improvements achieved to date were such that this item now be closed and future actions addressed as 'business as usual' with the |

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| | | | | | Chairman of PHES and Ward Members being kept appraised of progress. |
| 5. | 26 March 2018<br>9 May 2018<br>29 May 2018<br>10 July 2018<br>26 July 2018<br>11 Sept 2018<br>8 Oct 2018 | **Wind Measurement on Tall Buildings**<br><br>Question – when will the promised "before and after construction" wind measurements on 20 Fenchurch St be made available.<br><br>Officers advised that a number of extra trees had been planted outside 20 Fenchurch Street and agreed to produce a full report in due course of relevant and predicted readings. | Gwyn Richards | December 2018 | UPDATE: A report to be brought to the December meeting of the Committee. |
| 6. | 26 July 2018<br>11 Sept 2018<br>8 Oct 2018 | **Fumes**<br>A Member recognised that where there were occasions when the design of a particular building indicated ground level kitchen vents, planning conditions on how any smells would be dealt with were typically placed on these. However, he felt that there were occasions where | David Horkan/Rachel Pye | November 2018 | Planning and Environmental Health to produce a report to Committee on the standards and procedures for dealing with the extraction of fumes to restaurants & cafes? |

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| | | smells still caused a problem despite this and questioned whether, in such circumstances, those conditions were checked and / or how did Officers enforce them? | | | |

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of the Local Government Act 1972.

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By virtue of paragraph(s) 3, 5, 7 of Part 1 of Schedule 12A
of the Local Government Act 1972.

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