

MEETING

ENVIRONMENT COMMITTEE

DATE AND TIME

TUESDAY 8TH MARCH, 2022

AT 7.00 PM

VENUE

Hendon Town Hall

TO: MEMBERS OF ENVIRONMENT COMMITTEE (Quorum 3)

Chairman: Councillor Dean Cohen BSc (Hons)
Vice Chairman: Councillor Peter Zinkin

Felix Byers
Geof Cooke
Alison Cornelius

Laithe Jajeh
Alan Schneiderman
Elliot Simberg

Laurie Williams
Claire Farrier

Substitute Members

Nizza Fluss
Tim Roberts

Kath McGuirk
Sarah Wardle

Nagus Narenthira
Roberto Weeden-Sanz

In line with the Constitution's Public Participation and Engagement Rules, requests to submit public questions or comments must be submitted by 10am on the third working day before the date of the committee meeting. Therefore, the deadline for this meeting is **Thursday 3rd March at 10am**. Requests must be submitted to Tracy Scollin Tel 020 83592315 tracy.scollin@barnet.gov.uk.

You are requested to attend the above meeting for which an agenda is attached.

Andrew Charlwood – Head of Governance

Governance Service contact: Tracy Scollin Tel 020 83592315 tracy.scollin@barnet.gov.uk

Media Relations Contact: Tristan Garrick 020 8359 2454

ASSURANCE GROUP

ORDER OF BUSINESS

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Decisions of the Environment Committee

13 January 2022

Members Present:-

AGENDA ITEM 1

Councillor Dean Cohen (Chairman)
Councillor Peter Zinkin (Vice-Chairman)

Councillor Felix Byers
Councillor Geof Cooke
Councillor Alison Cornelius
Councillor Laithe Jajeh

Councillor Alan Schneiderman
Councillor Elliot Simberg
Councillor Laurie Williams
Councillor Claire Farrier

1. MINUTES OF THE PREVIOUS MEETING

Cllr Schneiderman reported that Cllr Laurie Williams' name was spelt incorrectly on page 3 of the minutes.

RESOLVED that the minutes were approved subject to the above amendment.

2. ABSENCE OF MEMBERS

None.

3. DECLARATIONS OF MEMBERS' DISCLOSABLE PECUNIARY INTERESTS AND NON-PECUNIARY INTERESTS

None.

4. REPORT OF THE MONITORING OFFICER (IF ANY)

None.

5. PUBLIC QUESTIONS AND COMMENTS (IF ANY)

The comments and questions were noted as published, as a supplement to the agenda.

6. MEMBERS' ITEMS

Cllr Alan Schneiderman – GETTING ACTION FROM WATER COMPANIES AND NETWORK RAIL

The Chairman invited Cllr Schneiderman to present his item.

Cllr Schneiderman reported that there has been sewage overflow onto pavements and parks at specific sites around the Borough over several years. His item requested that the Committee seek increased engagement with the relevant bodies to improve their input where needed, possibly inviting them to a meeting of the Committee.

The Chairman reported that there is already significant engagement with the water companies and Network Rail on this issue, and they have been tackling the areas that Cllr Schneiderman mentioned and other areas. The problem continued because work that had been carried out occasionally impacted on other problems, so the issues could be complex to resolve. The Chairman recommended that officers bring a Progress Report to the Committee, on the areas mentioned and on other locations where work is outstanding. He noted that a Charter had been agreed with the water companies and this had led to some improvements.

The Executive Director, Environment, Mr Geoff Mee offered to discuss the locations with Cllr Scheiderman, following which he would share progress with the Committee as well as providing a generic update on the Flood Risk Management Programme. He noted that he has requested a meeting with the Directors of Thames Water to try to resolve the problems with the sewage system, and the CEO of Thames Water had committed to work with Barnet Officers on this. Mr Mee added that Mr Ruchi Sayal, Senior Flood Risk Manager for Barnet had secured funding for flood risk management work.

Mr Mee noted that a report would be brought to the Committee on 8th March 2022.

Action: Mr Mee

The Chairman moved to a vote on the Member's Item, which was unanimously APPROVED.

RESOLVED that the Member's Item and action were noted.

Cllr Geof Cooke – IMPROVE BARNET'S LIGHTING IN STREETS AND PARKS

The Chairman invited Cllr Cooke to present his Member's Item.

Cllr Cooke reported that he had been hearing of concerns across Borough about lighting levels in some locations, residents reporting feeling unsafe due to inadequate lighting in some areas. Many of the LED lights appeared to have been turned down. Cllr Cooke requested a review of the issues in specific locations where officers had been notified of residents' concerns. Lambert Way, N12 and Victoria Recreation Ground in New Barnet are examples. Cllr Williams noted that there had been muggings reported in winter at Victoria Recreation Ground which has a public footpath running through it, which is regularly used as a short cut, so it would be preferable to increase the lighting levels at this location.

The Chairman reported that he had also been notified of concerns in some locations. However streets and parks should be looked at separately; many parks did not have lighting. Also problem areas are already investigated when reported by Ward Members, the police or members of the public, and if deemed inadequate then action is taken. The Chairman offered to follow up on the two locations mentioned.

Action: Chairman

Cllr Cooke asked whether there is a database of locations where adequacy of lighting has been questioned by the public and Members? Mr Mee reported that there is a database on every lamp column in the Borough but records are not retained of residents raising individual issues on lighting. Any reports of inadequate lighting are compared against the agreed standards Barnet has set for lighting. Mr Mee noted that he had not

been aware of the issue in Victoria Recreation Ground and would look into improving this and testing the location against the lighting standards.

Action: Mr Mee

Mr Mee reported that the system for reporting locations with inadequate lighting could be reviewed, if Members deem this to be required. He also requested that Cllr Cooke notify him of any other areas of concern.

Action: Cllr Cooke

Cllr Cooke reported that the Friends of Stoneyfields Park had reported concerns over inadequate lighting in Stoneyfields Park, HA8. Mr Ian Edser, Performance and Improvement Lead, Highways responded that a meeting has been held about this and plans are in hand.

The Chairman moved to a vote on the Member's Item, which was unanimously APPROVED.

RESOLVED that the Member's Item and actions were noted.

7. HIGHWAYS OPERATING MODEL

The Chairman invited Mr Mee to present the report on the restructure of the Highways Service. This would be presented to Full Council on 25th January. Subject to Council's endorsement, Mr Mee noted that he would work with Mr Edser on the business transformation for bringing the Highways Service in-house by September 2023. A detailed proposal for this was set out in the paper.

Cllr Schneiderman enquired how better value money could be ensured. Mr Edser responded that Key Performance Indications (KPI) had been explored, and procurement regulations would be followed, to consider the quality aspects of the offer.

The Chairman moved to a vote on the officers' three recommendations as outlined in the report, which were unanimously APPROVED.

RESOLVED that the officer's recommendations were approved.

8. HIGHWAYS PLANNED MAINTENANCE PROGRAMME

The Chairman invited Mr Edser to present the report on the Highway Network Recovery and Community Infrastructure Levy Programme 2022/23.

Mr Edser noted that the report contained the following errors in the tables provided at Appendix A: Proposed Carriageway and Footway Works by Wards for Year 8 of the Network Recovery Programme – 2022/23:

- Page 38 – Brent Street Section Length (m) 32 should read Queens Road Section Length 32
- Page 38 – Queens Road Section Length (m) 60 should read Barnet Road Section Length 60.

The Chairman enquired about the Brent Cross Year 8 Priority List – it was unclear whether this is highlighting the same area and funding as noted in the earlier section of the report: 'Queens Road' in West Hendon. Mr Edser would check this and respond following the meeting.

Action: Mr Edser

The Chairman reported that Blakeney Close, Totteridge (Page 42) had been discussed following a Ward Walk. As there is no house on one side of the road it was felt that the pathway was not essential on that side; also it had frequently needed repair due to lorries not having sufficient space to pass, and driving on the pavement. A discussion would take place on whether to widen the road instead.

The Chairman noted that discussions were underway on whether a smaller section of pavement could be left on one side of Coppice Walk than on the side with residential homes.

To cover the cost of this the scheme on Barnet Lane (page 45) would be reduced, leaving out some sections.

Cllr Cornelius requested that in future reports, details are listed in order of Ward alphabetically. Also the specific area is not clear in the report, eg near to which house numbers. The Chairman responded that this information can be provided individually to Ward members once formalised.

Cllr Cornelius asked about sealing materials as previous repairs had not always been successful. Mr Edser would ask the materials expert to provide the specifications on the materials for sealing.

Action: Mr Edser

Cllr Cooke also noted that the order of priorities was unclear. The Chairman noted that future reports would include lists in alphabetical Ward order. Mr Edser noted that all the maintenance work listed had been costed and would go ahead, although details on at which point during the year could not be provided due to the complexity of the programme management, which is developed in consultation with Tarmac Kier. He assured Cllr Cooke that none of the listed entries would be removed from the programme.

Action: Mr Edser

Cllr Schneiderman enquired about the rationale for whether a road is included in the Brent Cross section of the funding or not. For example, it was unclear why the footway in Cheviot Gate is included in the Brent Cross list as it is a small cul-de-sac whereas Claremont Road is included in the carriageway list.

Mr Edser responded that around £75k CIL funding had been allocated for the roads and footways near to Brent Cross (table 5.23). This had been cross-referenced with the relevant Ward. Discussions had taken place with Ward Members to ensure that bigger schemes had been aligned to NRP funding for specific Wards.

Cllr Jajeh enquired about the contractor's capacity to undertake the work. Mr Edser responded that officers had been overseeing the programme from the start together with Tarmac Kier. Tarmac Kier is ready to commence when the work programme is approved.

The Chairman moved to a vote on the officer's five recommendations as outlined in the report, which were unanimously APPROVED.

RESOLVED that the officer's recommendations were approved.

9. SOCIAL DISTANCING MEASURES

The Chairman invited Mr Mee to present the officer's report.

Mr Mee stated that the A1000 cycle scheme had attracted polarised views, and due to the pandemic it was difficult to gauge true usage of the scheme and present facts to the Committee.

Mr Mee added that the Council has been advised by the Department of Transport (DoT) that if it wishes to retain or remove the scheme, a full consultation with residents is required. In addition the Temporary Traffic Order (TTO) currently in place concludes in March 2022. This did not allow sufficient time for a full consultation so the preferred option is to extend the TTO if possible, followed by further information gathering on the scheme, followed by a consultation. However the Secretary of State (SoS) may not be able to allow an extension to the TTO.

Mr Mee reported that he would bring a report to the Committee on 8th March further to legal opinion and a review of the options. In the meantime discussions had been held on possible improvements for the scheme.

Cllr Cooke noted that the delay is having an impact on consideration of a crossing for pedestrians at the junction of High Road/Granville Road/Summers Lane N12. The Chairman responded that the A1000 cycle lane review is not delaying a decision on the junction, which was proceeding as it should be. Mr Mee noted that the junction is in part dependent on the rest of the road network but Barnet is in discussion with Transport for London (TfL) on this. TfL will need to endorse any decision.

Cllr Farrier stated that improvements to the crossing would be welcomed but air quality monitoring does not include traffic queuing at the crossover with the North Circular going south. Mr Mee noted that it is hoped that the two-lane system will be reinstated, reducing the queuing which increases idling.

Mr Mee reported that a proposal was being considered to remove the cycle lane at the section south of Fortis Green, to improve parking. There is no evidence that the cycle lane has increased journey times, but it appears to be causing bottle necks in some areas. Officers want to improve traffic flow and air quality and would keep the Committee informed on progress.

Cllr Farrier enquired how removal of the bus cage into Fortis Green would work for buses turning right at this junction. Mr Mee responded that this had been raised by two residents and he would speak to Mr Aarons about this and then respond on this point at a future meeting.

Action: Mr Mee

Cllr Schneiderman enquired about the timescale for the proposed improvements. The Chairman responded that the Martin's School improvements are already being implemented. Changes to the flyover would require further discussions with TfL and surveys. He would report back to the Committee in March when further counts and usage had been collated.

Action: Mr Mee

Cllr Schneiderman asked what decision the Committee would be asked to make at the next meeting. Mr Mee responded that retaining the cycle lane, with some remedial action, may be proposed if officers have a reasonable degree of security about this. This is subject to the SoS's decision on an extension of the TTO and a further consultation but by March it should be possible to report on how far potential improvements have been developed and a timescale for consultation and what questions it will contain as well as how it will be conducted.

Cllr Schneiderman enquired about the segregation at Sandringham Lane and Summers Lane. The Chairman responded that this would be discussed with Ward Members prior to a decision being made.

Cllr Farrier asked whether cycle lane markings will be included in the consultation. Mr Mee noted that the type of markings would need to be consulted on.

The Chairman moved to a vote on the officer's four recommendations as outlined in the report, which were unanimously APPROVED.

RESOLVED that the officer's recommendations were approved.

10. REVIEW OF TENNIS COURTS IN PARKS AND OPEN SPACES

The Chairman proposed that the report be deferred until the next meeting, on 8th March. Resident groups had emailed Members about the impact the proposals would have on them, so time for discussions with residents is needed.

11. VEHICLE HIRE

The Chairman noted that this item would not be considered by Environment Committee and was added in error.

12. COMMITTEE FORWARD WORK PROGRAMME

RESOLVED that the Forward Work Programme was agreed.

13. ANY OTHER ITEMS THAT THE CHAIRMAN DECIDES ARE URGENT

None.

The meeting finished at 8.55 pm


Environment Committee
8 March 2022

Title	Controlled Parking Zone Permits Policy Position
Report of	Chairman of the Environment Committee
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	
Officer Contact Details	Geoff Mee, Executive Director, Environment 020 8359 3521 Geoff.Mee@barnet.gov.uk Phillip Hoare, Assistant Director, Parking 020 8359 2308 Phillip.Hoare@barnet.gov.uk

Summary

This report sets out a policy approach for future developments and controlled parking zones in Barnet. This approach is being recommended in order to better protect parking for residents within controlled parking zones, ensure that associated planning conditions in relation to parking are implemented, which in turn to support the delivery of the borough's Long Term Transport Strategy and Growth Strategy. This report also recommends the introduction of an administration charge to be passed on to developers to cover the cost of implementing a cap on the number of parking permits in relation to individual developments.

Officers Recommendations

1. That the Environment Committee notes the proposed position on parking permits as outlined within this paper.

- | |
|--|
| <p>2. That the Environment Committee recommends that Full Council approves the administration charge as part of the schedule of fees and charges and for this fee to be passed on to developers as outlined at paragraph 2.8</p> |
|--|

1. WHY THIS REPORT IS NEEDED

- 1.1 This report is needed to ensure that parking permit allocation is consistent with the evolving Local Plan and the parking provisions within the Local Plan. When parking in new developments changes from the historic pattern of being almost exclusively private parking within the development toward a development with more spaces passing to the Council as part of the adopted highway, it is proposed that a cap is placed upon the number of parking permits residents within these developments are able to apply for. This would be in keeping with the cap or limit placed upon the development in the associated planning consent which is informed by the evolving Local Plan. This paper is intended to conform the parking permit position with the Local Plan and to allow for the cost of amendments to the Council's permit issuing system and the traffic management order where appropriate.
- 1.2 A one off administrative set up fee (£25 per dwelling) for this, paid by the developer, is proposed to be introduced.

2. Background

- 2.1 The Council has a Controlled Parking Zone (CPZ) Programme which aims to address long standing requests from residents to review parking restrictions. This paper sets out a proposed approach to considering the impact of future and planned developments in the CPZ Programme, in specifically ensuring that there is an appropriate parking permit position in place which can implement the planning conditions agreed regarding parking and access to CPZ permits by the residents of those developments.
- 2.2 Currently the Council's traffic management orders set out that properties may apply for up to four resident permits. This applies to all properties regardless of the size of dwelling or number of occupants.
- 2.3 At present, the parking team liaise with the Development Management team on major developments which are being proposed and going through the planning process. This includes recommending section 106 contributions for parking to be proposed to the developer, to ensure that an appropriate financial contribution to mitigate the impact on parking in the local area is secured.
- 2.4 Where a development is of significant size this will require the developer to fund a review of the parking availability and suitability of any existing parking controls. As a result of that review, it is then to be determined whether the residents will be able to access parking permits, and if so, this access may be limited to a certain number of permits per property. This figure may be adjusted where there is partial on site (private) parking spaces and partial on street space provisions. This is increasingly common for large scale developments where the road network is altered and the new roads will be adopted by the Council at a later stage. The amount of car parking space provided for will generally be agreed in line with planning policy and may mean that some properties within the development will not have an allocated parking space.

2.5 Where a condition is agreed with a developer that would place a lower cap on permits per household, this would be with reference to the borough's residential parking standards as set out in the Local Plan, which mirror those of the London Plan policy T6.1¹.

2.6 Where the relevant planning consent does not specify that a development is car free, or sets a cap on the number of CPZ permits per property, it is proposed that the following maximum number of permits will be set as a limit for that development set out in London Plan Policy T6.1 and table 10.3. Table 1 below is for reference and shows the proposed parking standards for residential development as set out in the draft Local Plan, which are based on the standards recommended by the car parking study undertaken to support the development of the parking policy and are not a significant departure from Table 10.3 in the London Plan. It should be noted that the parking standards in the draft plan are subject to an examination in public later in the year and could change as a result before they are adopted, and the proposed CPZ permit caps within Table 1 will be monitored and kept under review with regard to their effectiveness and alignment with relevant standards as set out within planning policy.

2.7 **Table 1: Proposed maximum CPZ permits for new developments**

PTAL ²	Proposed LBB Parking Standards (draft Barnet Local Plan April 2021) Maximum parking provision*		Maximum CPZ Permits issued per property	
	1 and 2 Bed Units	3 + Bed Units	1 and 2 Bed Units	3 + Bed Units
0	1.25	1.5 [^]	1	2
1	1.25	1.5 [^]	1	2
2	0.75	1	1	1
3	0.75	1	1	1
4	0.5-0.75 [#]	0.5-0.75 [#]	1	1
5	Car Free ^{~!}	Car Free ^{~!}	0	0
6	Car Free [~]	Car Free [~]	0	0

* Metropolitan and Major Town Centres to be Car Free[~]; and Up to 0.5 spaces per dwelling be allowed for developments within Opportunity Areas.

~ With the exception of disabled persons parking, see Part G Policy T6 .1 Residential parking.

! Where the orbital PTAL is 4 or less minimal parking for car club schemes to be considered.

When considering development proposals that are higher density or in more accessible locations, the lower standard shown here should be applied as a maximum.

[^] Boroughs should consider standards that allow for higher levels of provision where there is clear evidence that this would support additional family housing.

2.8 There are costs associated with making the necessary amendments to the traffic orders and setting a maximum cap on permits issued to each property within the Council's permit system. It is proposed that these costs are charged to the developer on agreement of planning conditions and are set at £25 per property/unit.

3. REASONS FOR RECOMMENDATIONS

¹ London Plan policy T6.1, Table 10.3: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

² Transport for London's (TfL) Public Transport Accessibility Levels (PTALs): <https://data.london.gov.uk/dataset/public-transport-accessibility-levels>

- 3.1 Barnet's highway network is our largest, most valuable and most visible community asset and is probably the most used of all of our services, by nearly all residents on a daily basis. It is vital to the economic, social and environmental well-being of our community.
- 3.2 The Council has a duty to ensure that the statutory functions and responsibilities in relation to those highways for which the local authority is responsible are discharged through the Traffic Management Act 2004.
- 3.3 Protecting the ability of residents and businesses to park as well as the safe management of the highway will provide long term benefits and aids the Borough in fulfilling various statutory duties and strategic ambitions, notably in supporting the Long Term Transport Strategy delivery plan and Growth Strategy.

4. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

4.1 Take no action

- 4.1.1 This option is not recommended as to do nothing will lead to increased pressure on the public highway and existing residents experiencing increased difficulty parking on street due to the impact from development. This is not recommended as it does not support the Council's Growth Strategy and the Council may fail to meet its requirements to implement agreed planning decisions and the Long Term Transport Strategy.

5. POST DECISION IMPLEMENTATION

- 5.1 The proposed administration charges as set out at paragraph 2.8 will be adopted as part of the Council's Fees and Charges.
- 5.2 Officers will liaise with colleagues within the planning and regeneration service to identify new developments where planning conditions are being put in place to designate properties as car free or car limited (capped).
- 5.3 The conditions relating to access to parking permits to park within controlled parking zones as set out within subsequent planning agreements will be implemented in accordance with the statutory traffic order making process. This process includes statutory consultation.
- 5.4 Following publication of the relevant traffic order, the associated administration charges as set out at paragraph 2.8 will be calculated and charged to the developer. The Council's parking permit system will be updated to reflect those conditions and ensure that residents of that development are only able to apply for permits up to the cap as set out within the traffic order.

6. IMPLICATIONS OF DECISION

6.1 Corporate Priorities and Performance

- 6.1.1 The Council's Corporate Plan – Barnet 2024, states in its strategic objectives that it will work with partners to achieve a pleasant, well maintained borough that we protect and invest in.
- 6.1.2 This policy approach, if approved, will contribute to the Councils corporate plan by:

1. Promoting the principles of fairness to those who live within existing CPZs and areas outside CPZs which have become under increasing pressure by managing the demand for parking.

2. Improve the process by which parking arrangements for new developments are consulted upon and implemented, ensuring that services are delivered efficiently and achieve value for money.

3. Reflecting an engagement with communities and help to build stronger relationships by demonstrating that concerns are being considered and acted upon in a timely way, and that the Council's policy and decision making regarding traffic management is lawful and consistent.

4. The policy will also contribute towards the Council's Long Term Transport Strategy and Growth Strategy through the adoption and implementation of car free or car limited development conditions where these apply.

6.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

6.2.1 Finance: There will be a financial implication associated with these proposals in that there will be a reduction in parking permit transactions. This will not impact existing revenue, but potential future revenue may be impacted albeit not quantifiably and not to a significant extent and this impact is outweighed by the Council's statutory traffic management duties. The additional administration costs associated with these proposals will be passed on to the developer.

6.2.2 Procurement: There are no procurement implications arising from these proposals.

6.2.3 Staffing: There are no staffing implications arising from these proposals.

6.2.4 IT: Adjustments will be made to the Council's parking permit system as a result of these proposals but there are no resources required from the Council's ICT service as a result.

6.2.5 Property: There are no property implications arising from these proposals.

6.2.6 Sustainability: These proposals will contribute towards the Council's Long Term Transport Strategy and wider sustainability objectives by ensuring that developments designated as car free or car limited so as to encourage alternatives to car use and active travel are prevented from accessing permits beyond the conditions set out within the associated planning consent and/or traffic management orders.

6.3 Legal and Constitutional References

6.3.1 The Traffic Management Act 2004 places obligation on authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

6.3.2 The Council as the Highway and Traffic Authority has the necessary legal powers to

introduce or amend Traffic Management Orders through the Road Traffic Regulation Act 1984 and subsidiary regulations made under that Act. Where a development is proposed to be included within a controlled parking zone, statutory consultation is carried out under the provisions of the Act. This would set out the permit cap where this has been agreed as part of the planning consent for that development.

- 6.3.3 Council Constitution (Article 7, Committees, Forums, Working Groups and Partnerships) sets out the responsible body and their functions. For the Environment Committee it's functions include: Responsibility for all borough-wide or cross-constituency matters relating to the street scene which includes, parking and road safety.

6.4 **Insight**

- 6.4.1 No specific insight has been referenced within this report, however the borough's Long Term Transport Strategy and Growth Strategy provide the background to this report.

6.5 **Social Value**

- 6.5.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic, and environmental benefits. This report does not relate to procurement of services contracts.

6.6 **Risk Management**

- 6.6.1 Effective management of risk is an integral part of the Council's parking service and the Council's Risk Management Framework has established strategic and departmental risk registers into which the parking service report and monitor service level risks.
- 6.6.2 Approval of the policy position outlined within this paper ensures there is a clear and transparent overarching policy in place regarding private developments and/or private roads in the borough and their eligibility to park within controlled parking zones. This is effective mitigation of risk of challenge to the Council's traffic management duties.

6.7 **Equalities and Diversity**

- 6.7.1 Section 149 of the 2010 Equality Act outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- a) Eliminate discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010.
- 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.

- 6.7.2 Having due regards means the need to (a) remove or minimise disadvantage 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 people who do not share it, (c) encourage persons who share a relevant protected characteristic to participate in public life in any other activity in which participation by such persons is disproportionately low.

6.7.3 The relevant protected characteristics are age, race, disability, gender reassignment, pregnancy and maternity, religion or belief, sex and sexual orientation. The duty also covers marriage and civil partnership, but to a limited extent.

6.7.4 Barnet Council is committed to improving the quality of life and wider participation for all the religious/faith, cultural, social and community life of the borough. The implementation of a clear policy in regard to the inclusion of private developments and/or private roads within controlled parking zones contributes to the overall management of the highway network for all of the borough's residents and therefore advances equality of opportunity for all and is not considered to adversely impact on persons within the protected characteristics.

6.8 Corporate Parenting

6.8.1 In line with Children and Social Work Act 2017, the Council has a duty to consider Corporate Parenting Principles in decision-making across the council. Not applicable to this report.

6.9 Consultation and Engagement

6.9.1 Statutory consultation regarding new developments is carried out as part of the planning process where interested parties have the opportunity to comment on the proposals, including concerns regarding the impact on traffic management and parking.

6.9.2 Where a development is proposed to be included within a controlled parking zone, statutory consultation is carried out under the provisions of the Road Traffic Regulation Act 1984. This provides an opportunity for local residents, businesses and stakeholders to comment on the proposals.

7. ENVIRONMENTAL IMPACT

7.1 There are no direct environmental implications from noting the recommendations. Implementing the recommendations in the report will lead to a positive impact on the Council's carbon and ecology impact as it will ensure that the planning conditions set in respect of new developments regarding parking and traffic management will be implemented.

8. BACKGROUND PAPERS

8.1 The Council's Long Term Transport Strategy and Growth Strategy form the background papers to this report.

8.2 The Long Term Transport Strategy is published here: <https://www.barnet.gov.uk/roads-and-pavements/barnets-long-term-transport-strategy-2020-2041>

8.3 The Growth Strategy is published here: <https://www.barnet.gov.uk/regeneration/our-growth-strategy/about-growth-strategy>

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Environment Committee

AGENDA ITEM 8

8 March 2022



Title **Social Distancing Measures**

Report of Chairman of the Environment Committee

Wards All

Status Public

Urgent No

Key No

Enclosures None

Officer Contact Details Geoff Mee, Executive Director Environment
Geoff.Mee@Barnet.gov.uk

Summary

At the Environment Committee of 13 January 2022, progress on the A1000 Cycle Scheme was discussed. It was noted that a future report in March 2022 would update the Committee on measures to modify the scheme and to outline proposals for a wide engagement and consultation exercise on the future of the scheme.

This report provides an update on these measures and the proposed engagement and consultation.

Officers Recommendations

1. That the Environment Committee notes that the Executive Director, Environment will make arrangements for a wider engagement and consultation exercise, to commence by June 2022; the results to be brought back to Environment Committee in autumn 2022 for a final decision on whether to retain, modify or remove the Cycle scheme.
2. That the Environment Committee notes the introduction of new Experimental Traffic Management Orders as set out at section 4 of the report which reflects feedback so far received in respect of the scheme.

1. WHY THIS REPORT IS NEEDED

- 1.1 The Environment Committee of 13 January 2022 noted the status of a number of Coronavirus pandemic emergency schemes, including the A1000 Cycle Scheme.
- 1.2 At the January 2022 meeting, Officers undertook to report back in March 2022 on developed design alterations to allow a decision to be made on revocation or on retention, the latter to allow a consultation under a new permanent Order or under new experimental Orders.
- 1.3 This report sets out the current position with regard to the measures put in place to date and the proposed engagement and consultation.

2. REASONS FOR RECOMMENDATIONS

- 2.1 Experimental Traffic Management Orders (ETMOs) for the Social Distancing schemes were published between July and September 2020. These last for a maximum of 18 months.
- 2.2 The expiry of these current ETMOs is approaching in the early part of 2022, necessitating a decision on whether to not confirm or retain. This timing does not allow adequate time to carry out an engagement and consultation exercise on such schemes, as directed by central Government.

3. RECOMMENDED OPTIONS

- 3.1 Government requirements for schemes introduced as covid response measures are that wider consultation must take place prior to removal, modification or retention of the scheme.
- 3.2 This report notes the proposed alterations to the layout of the scheme, together with revised ETMOs, to allow a comprehensive engagement and consultation exercise to take place.

4. PROGRESS ON REVIEW AND DEVELOPMENT

- 4.1 Design work has progressed on the scheme alterations outlined in the 13th January Environment Committee report. Running north to south these are:

Sandringham Gardens to Summers Lane

- 4.2 A new shared footpath/cycle facility using the wide footway and verge along this section of the route will be installed and the adjacent southbound carriageway will revert to pre-scheme conditions. The engineering measures will be limited to localised footway repairs and amendments, lining and signing. **Appendix A** illustrates the proposed layout.

Granville Road / Summers Lane junction

- 4.3 Officers are aware from Members' comments at the 13 January Committee meeting of the desire to address the lack of pedestrian facilities at this junction. Whilst the junction does not directly form part of the cycle scheme, a permanent solution to the scheme can accommodate improvements at the junction. A new design and traffic modelling is required to propose any improvement measures, subject to funding being available. Alternatively, and again subject to funding, the junction improvement scheme will proceed independently of the cycle scheme should the decision be made in the future to remove the latter.

Summers Lane to Squires Lane

- 4.4 The current approximately 3.5m wide southbound bus and cycle lane will be removed and this section of road will be reconfigured as follows: The northbound carriageway will comprise a mandatory 1.5m wide cycle lane and one northbound general traffic lane. The southbound carriageway will comprise a mandatory 1.5m wide cycle lane and 2no general lanes. This arrangement more closely reflects the pre scheme arrangement. The proposals are shown in **Appendix B**.

A406 Flyover

- 4.5 Options remain to relocate cyclists to a shared footway/cycle way facility, ahead of development of a longer term solution should the cycle lane be made permanent later next year. However, the flyover is structurally the responsibility of TfL. Discussions continue to take place on the safety and structural implications of even the 'quick win' measures. These revolve around the necessity to increase the parapet heights to reflect minimum height standards for cyclists. Even the installation of temporary 'heras' fencing has implications for weight and wind loading that need to be assessed by TfL's structural engineers. We are continuing to liaise with TfL on this matter but these design alterations will likely follow later this year.

Alternatively, a further option exists to remove the bus / cycle lanes and cyclists will travel in the nearside traffic lane. Cycle logos on blue surfacing are proposed to raise awareness of the presence of cyclists.

Both options are shown in **Appendices C** and **D**.

Martins Primary School

- 4.6 The reintroduction of parking just to the south of Martins Primary School and outlined in the January committee report has now been completed.

East Finchley

- 4.7 Congestion and parking issues at the East End Road/Fortis Green junction and south into East Finchley town centre have been raised. Between the junction with Fortis Green and Baronsmere Road the current cycle lane facilities will be temporarily removed and reverting the layout back to pre-scheme arrangements. The proposed layout is shown in **Appendix E**.
- 4.8 South of East Finchley Underground Station it is proposed to extend the 20mph speed limit. The current 20mph limit extends to East Finchley Underground Station. In looking at the general changes to the scheme officers reviewed the last section towards the LB Haringey boundary and were mindful of LTN 1/20 Cycle Infrastructure Design guidance, which states that the “Designers should aim to provide geometry to enable most people to proceed at a comfortable speed, typically around 20mph”. Given that this last section is a mix of segregated and ‘with traffic’ conditions officers it is felt that extending the 20mph limit (which does not appear to be a contentious issue) would give less experienced cyclists more confidence in using the route. This proposal is shown in **Appendix F**.

5. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

Not Confirm the Experimental Traffic Order and Remove the Scheme

- 5.1 The current ETMO comes to an end on 20th March 2022. National Government has made clear in its letter from the Department for Transport, dated 30th July 2021 (**Appendix H**) that it expects wider consultation on any of the covid response schemes prior to removal, modification or retention.
- 5.2 A decision to not confirm in March 2022 will not allow this consultation to take place. Removal of the scheme will need to be funded and removal may have additional implications for the current funding provided for the scheme as well as future sustainable transport funding from national Government and TfL.

6. POST DECISION IMPLEMENTATION

Scheme Site Alterations

- 6.1 The design alteration proposals outlined in sections 4.2 to 4.7 will be introduced on site through the publication of new and different Experimental Traffic Management Orders (ETMOs), which will come into effect by the 21st of March 2022:
- 6.2 In order to ensure road user safety, Road Safety Audits (RSA's) need to be carried out on these design changes. These were in the process of being carried out at the time of submitting the report for circulation. Consequently, it is possible that changes may need to be made to the layouts submitted with this report. Any major alterations will be highlighted verbally at the Committee meeting.

Traffic data

- 6.3 Monitoring will continue at a suitable, cost-effective frequency. As before, this will cover traffic and cycle volume, journey times, queue lengths at the signal junctions and air quality.

Engagement and Consultation

Statutory Experimental Traffic Management Order Consultation

6.4 The change outlined above, require the creation of new ETMOs, which will in turn necessitate a 6 month statutory consultation on the amendments. After this point, depending on feedback, a decision can be made on whether to retain or revoke the measures.

Non-Statutory Engagement and Consultation

6.5 Notwithstanding the above, Officers recognise from feedback and comment that there is a need to undertake a wider engagement with the public over the future of the A1000 scheme. This recognition is re-enforced by central Government requirements that consultation take place before retention, removal or modification of any of the centrally funded covid related schemes.

6.6 To address this, officers are planning to undertake a series of engagement exercises culminating in a consultation exercise. The process will commence soon after the end of the election period in May. It will continue through the summer and conclude in early autumn to allow a final decision on the scheme to be decided following presentation to Environment committee in September or October.

6.7 Full plans for the engagement exercise are yet to be finalised but will involve the use of an external specialist company, as required by central Government. Current plans foresee the following stages, though this format and scope may change as we develop the final consultation specification over the coming weeks:

- (i) Initially, to use the Engage Barnet hub to publicise an engagement exercise for the A1000. This will place the scheme in the context of the covid measures and LB Barnet initiatives relating to health, wellbeing and transport eg the Long Term Transport Strategy. It will outline the scope and content of the engagement exercise and possibly ask for interest in participating (subject to numbers).
- (i) An engagement exercise scoped and organised by an external specialist consultant. This will involve statutory consultees, interest groups and volunteers, possibly using phone surveys, workshops etc. It will aim to include persons who live and work along the A1000 and those adjacent who may be affected by the measures. It will also aim to engage with those who use the A1000 as a transport link. This engagement exercise may make use of eg traffic data, context within LB Barnet strategies and policies, pre-workshop videos and other tools to inform participants of the issues to be discussed etc.
- (ii) On completion, the outputs from the exercise will be used to inform a consultation via the Engage Barnet hub to obtain feedback from the wider LB Barnet community on views for the future of the scheme.

6.8 The exercise will then be reported to Environment Committee in the autumn for a final decision on the future of the scheme.

7. IMPLICATIONS OF DECISION

7.1 Corporate Priorities and Performance

7.1.1 The Council's Transport Strategy

7.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

7.2.1 Finance & Value for Money

Current available funding and sources comprise:

Social Distancing Thread	Govt Direct Funding	Govt (via TfL Funding)
A1000		
Phase 1 – LB Haringey to Tally Ho Corner	£ 51,000	£ 263,800
Phase 1 - review and mitigation measures		£ 208,975
Totals	£ 51,000	£ 472,775

7.2.2 Procurement

This section does not apply to this report.

7.2.3 Staffing

The design will encompass staff from Re, assisted by Third Party companies providing surveys and data analysis and specialist engagement skills. Construction resource will be through Tarmac Kier.

7.2.4 IT

This section does not apply to this report.

7.2.5 Property

This section does not apply to this report.

7.2.6 Sustainability

The scheme supports the council's plans for a sustainable Transport Network as outlined in the Long Term Transport Strategy (LTTS).

7.3 Social Value

7.3.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. In the short term, the schemes directly support Government policies to mitigate the Coronavirus pandemic.

The schemes also support central government aspirations for sustainable travel as outlined in the Department for Transport document Gear Change: One Year On, published in 2021 (**Appendix G**) and the Department of Transport letter all highway authorities, dated 30th July 2021, concerning active travel schemes supported by Government funding (**Appendix H**).

7.4 Legal and Constitutional References

7.4.1 The Traffic Management Act 2004 and Section 122 of the Road Traffic Regulation Act 1984 places obligations on highway authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

7.4.2 The Council as the Highway Authority has the necessary legal powers to introduce or amend Experimental Traffic Management Orders under the Road Traffic Regulation Act 1984 and subsidiary regulations made under that Act.

7.4.3 There is no legal power to extend an ETMO beyond the 18 month period except in accordance with section 9(5) of the Road Traffic Regulation Act where the ETMO is to be made permanent and there is a Public Inquiry.

7.4.4 It is possible to make new experimental orders if they are a genuine new experiment and are different to the current schemes.

7.4.5 The terms of reference for the Environment Committee under Article 7 of the Council's Constitution includes responsibility for all borough-wide or cross-constituency matters relating to the street scene including, parking, road safety, lighting, street cleaning, littering, fly-tipping, fly-posting, graffiti, transport, waste, waterways, refuse, recycling, allotments, parks, trees, crematoria and mortuary, trading standards and environmental health.

7.5 Risk Management

7.5.1 The Council, as Highway Authority, has various responsibilities and duties. To address these responsibilities and duties the council has established policies, systems and processes that are regularly audited, reviewed and amended where necessary to reflect current good practice and guidance.

7.5.2 The social distancing schemes in the short term look to introduce measures to reduce the impact of the Coronavirus pandemic on the health and well-being of the local population. In the long term they look to support the development of healthy transport modes within the borough.

7.6 Equalities and Diversity

7.6.1 The Equality Act 2010 requires organisations exercising public functions to demonstrate

that due regard has been paid to equalities in:

- Elimination of unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010.
- Advancement of equality of opportunity between people from different groups.
- Fostering of good relations between people from different groups.

7.6.2 The Equality Act 2010 identifies the following protected characteristics: age; disability; gender reassignment; marriage and civil partnership, pregnancy, and maternity; race; religion or belief; sex and sexual orientation.

7.6.3 To assist in meeting the duty the council will:

- Try to understand the diversity of our customers to improve our services.
- Consider the impact of our decisions on different groups to ensure they are fair.
- Mainstream equalities into business and financial planning and integrating equalities into everything we do.
- Learn more about Barnet's diverse communities by engaging with them.

7.6.4 Good roads should provide facilities for all road users and will have a positive impact on the quality of life for those who travel along them, or live and carry out business on them.

7.6.6 Similarly, measures to support the prime function of a road or sections of a road eg Town Centres and School Streets reflect better the needs of the users, again promoting well-being. An Equality Impact Assessment has been conducted.

7.6.7 The interim Equality Impact assessment included as an appendix to the 13 January 2022 Environment Committee report will be updated and included as one of the documents informing the engagement exercise outlined in Sections 6.5 to 6.8. It is expected that updates will include one-to-one engagement with groups representing people with protected characteristics.

7.7 **Corporate Parenting**

7.7.1 In line with the Children and Social Work Act 2017, the council has a duty to consider Corporate Parenting Principles in decision-making across the council. There are no implications for Corporate Parenting in relation to this report.

7.8 **Consultation and Engagement**

7.8.1 The need for and commitment to engagement and consultation is outlined in Sections 6.5 to 6.8. The results of this proposed exercise will inform the decision on whether to retain, modify or revoke the scheme.

7.9 **Insight**

7.9.1 This section does not apply to this report.

8 **BACKGROUND PAPERS**

8.1 Environment Committee Report 30 June 2020.

<https://barnet.moderngov.co.uk/documents/s59138/Covid%2019%20Decisions.pdf>

8.2 Environment Committee Report 11 March 2021.

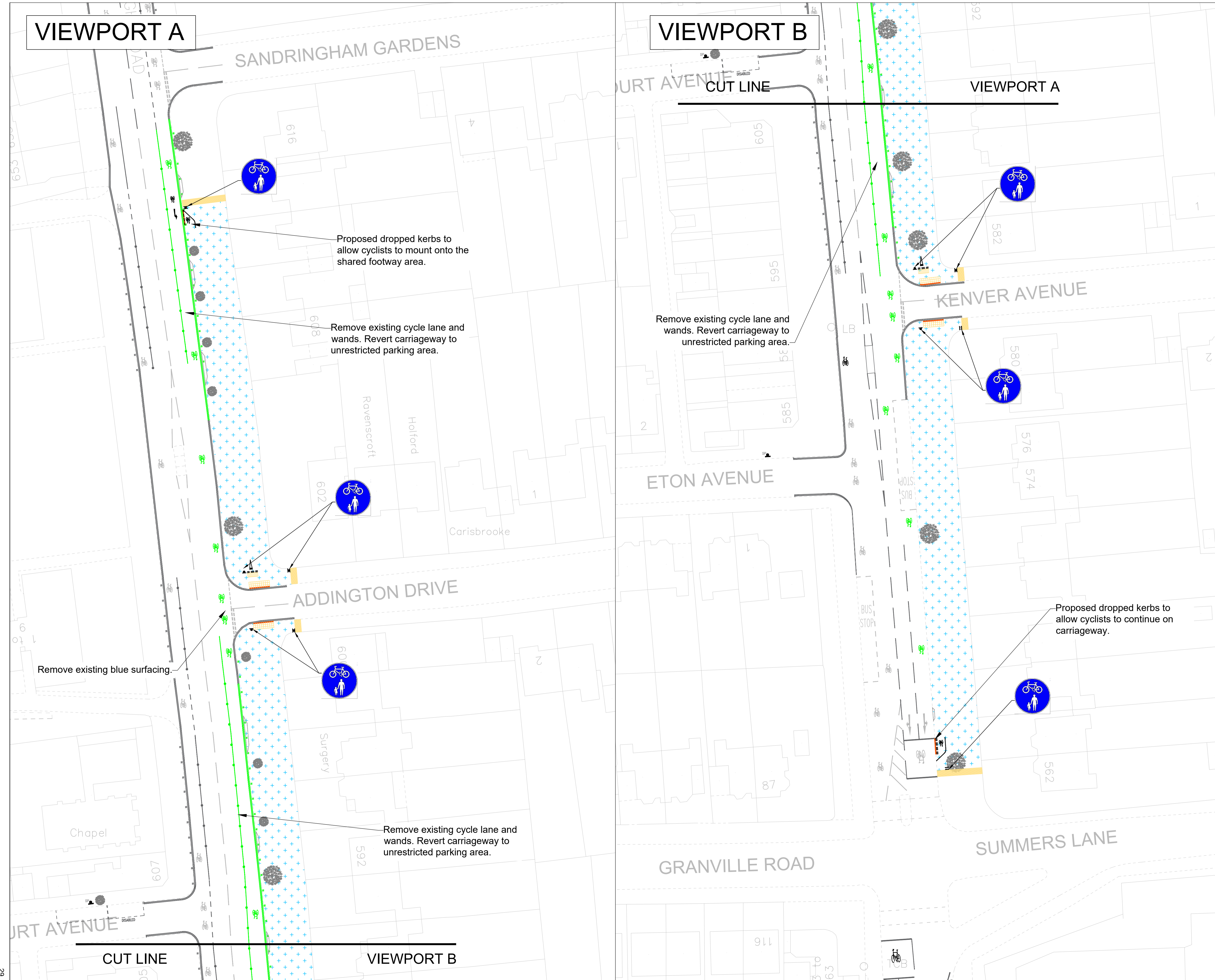
<https://barnet.moderngov.co.uk/documents/s64150/Social%20Distancing.pdf>

8.3 Environment Committee Report 13 January 2022.

(Public Pack) Social Distancing Measures Agenda Supplement for Environment Committee, 13/01/2022 19:00 (moderngov.co.uk)

VIEWPORT A

VIEWPORT B



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
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NOTES:

KEY:

- Shared footway area
- Proposed road markings
- Proposed sign and post
- Proposed buff colour tramline paving
- Proposed buff colour tactile paving
- Proposed dropped kerbs
- Items to be removed

Proposed dropped kerbs to allow cyclists to mount onto the shared footway area.

Remove existing cycle lane and wands. Revert carriageway to unrestricted parking area.

Remove existing cycle lane and wands. Revert carriageway to unrestricted parking area.

Proposed dropped kerbs to allow cyclists to continue on carriageway.

Remove existing blue surfacing.

Remove existing cycle lane and wands. Revert carriageway to unrestricted parking area.

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REVISION			
Revision Details	Design/Check	Date	Rev.
Initial issue	JC / SH	18/02/22	0

Purpose of issue
FOR INFORMATION

Client:

Scheme Ref. BC/001868-01
 Scheme title
Social Distancing Measures A1000 - Pop-up Cycle Lane Phase 1

Drawing title
Shared Footway /Cycle Facility Between Sandringham Gardens and Summers Lane

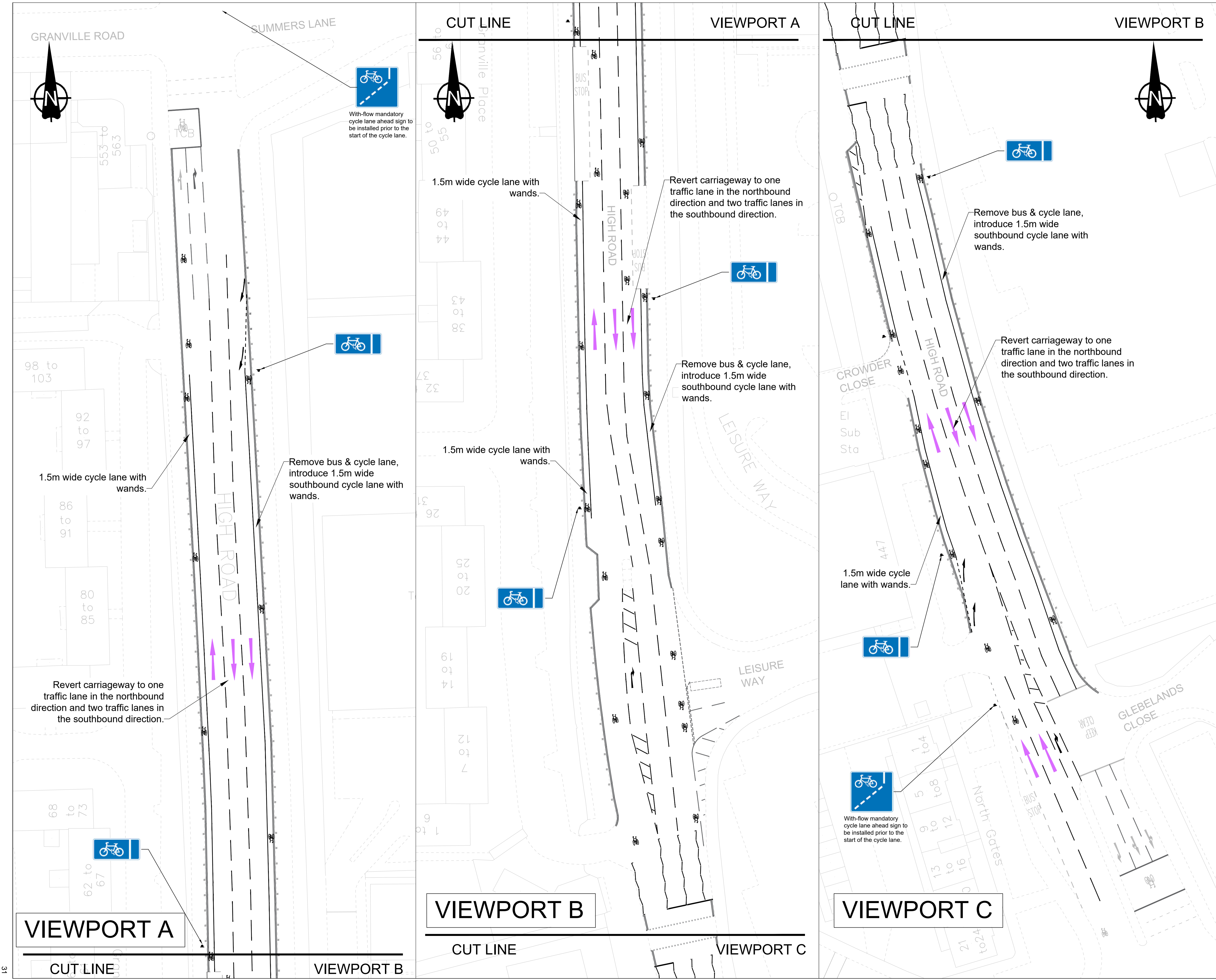
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Design JC	Drawn JC	Checked SH	Approved AG
Date: 15/02/22	Date: 15/02/22	Date: 17/02/22	Date: 18/02/22



BC/001868_01-100-Sandringham 0

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- NOTES:**
- Direction of traffic flow
 - Proposed road marking
 - Proposed sign and post

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REVISION			
Revision Details	Design/Check	Date	Rev.
Initial issue	JC / SH	18/02/22	0

Purpose of issue
FOR INFORMATION

Client:

Scheme Ref. BC/001868-01
 Scheme title **Social Distancing Measures A1000 - Pop-up Cycle Lane Phase 1**

Drawing title **Congestion Mitigation Measures Between Summers Lane and Squires Lane**

Scale @ A1: NTS

Design	Drawn	Checked	Approved
JC	JC	SH	AG

Date: 15/02/22 Date: 15/02/22 Date: 17/02/22 Date: 18/02/22



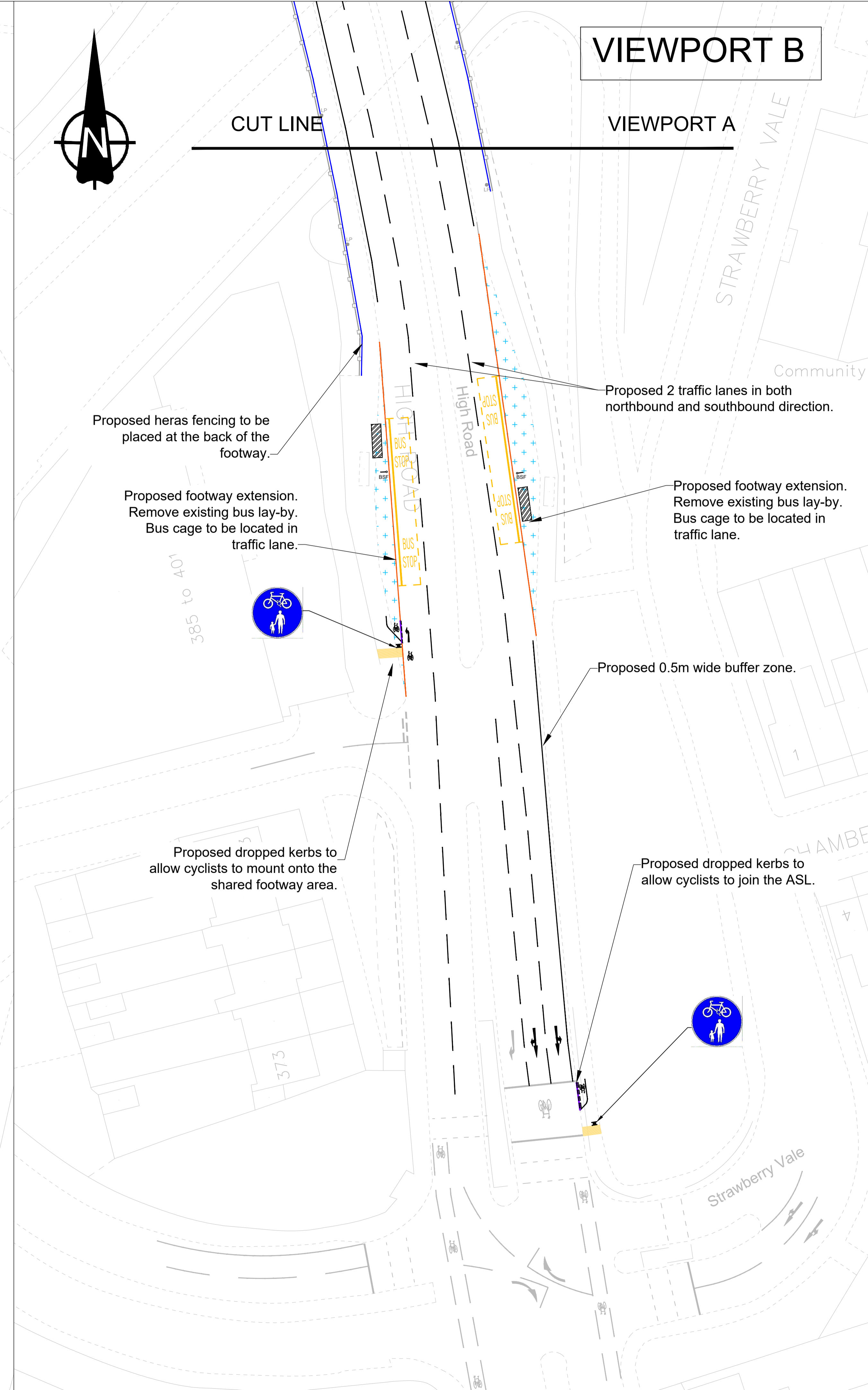
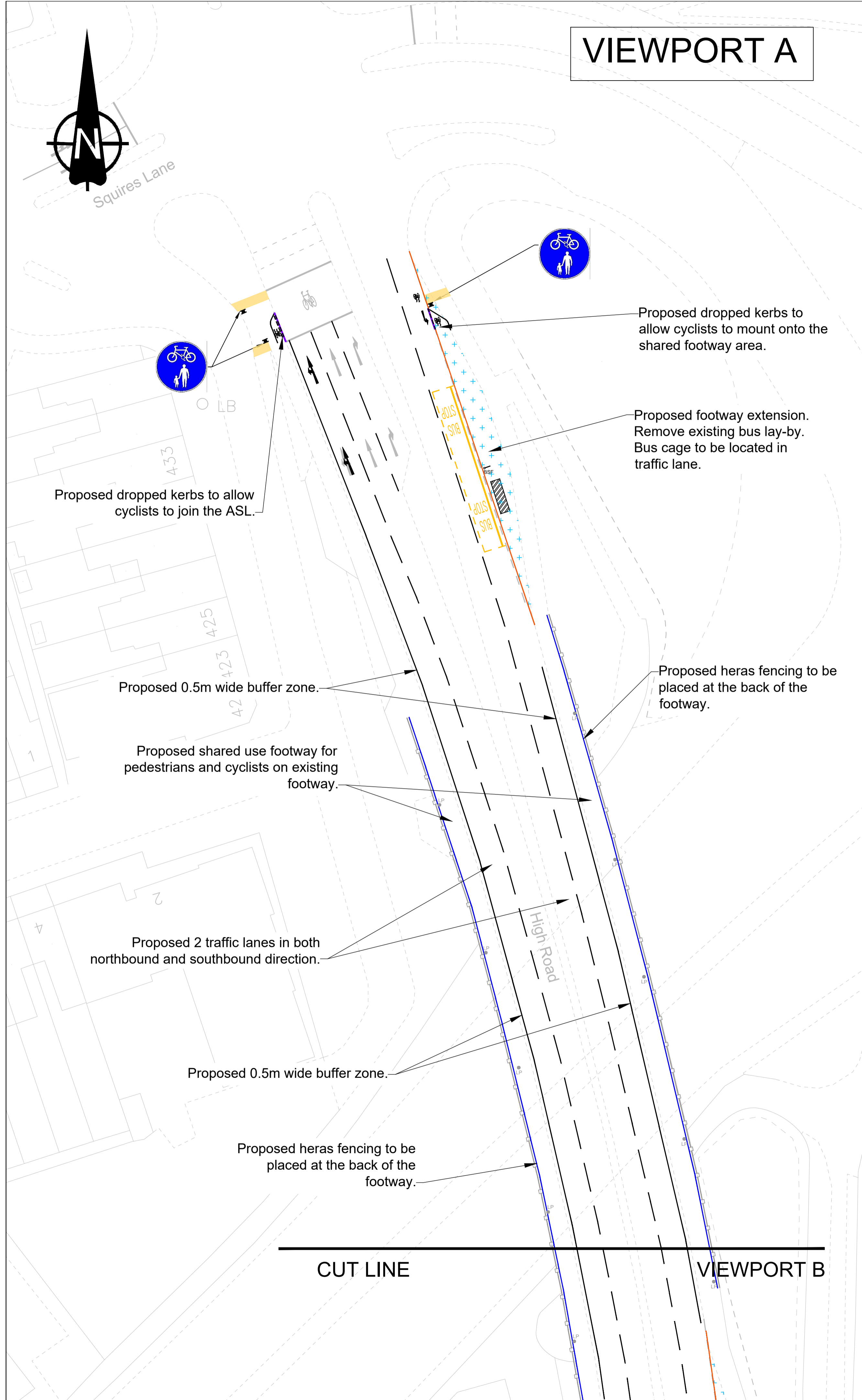
BC/001868_01-100-Summers/Squires Rev. 0

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- NOTES:**
- Footway extension
 - Proposed road markings
 - Proposed sign and post
 - Proposed buff colour tramline paving
 - Proposed kerbs
 - New Bus Shelter location
 - New Bus stop flag location
 - Proposed Heras Fencing

VIEWPORT A

VIEWPORT B



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Initial issue	JC / SH	18/02/22	0

Purpose of issue
FOR INFORMATION

Client:

Scheme Ref. BC/001868-01
 Scheme title **Social Distancing Measures A1000 - Pop-up Cycle Lane Phase 1**

Drawing title **Shared Footway /Cycle Facility Flyover - between Squires Lane and Strawberry Vale Option 3**

Scale @ A1: NTS			
Design	Drawn	Checked	Approved
JC	JC	SH	AG
Date: 15/02/22	Date: 15/02/22	Date: 17/02/22	Date: 18/02/22



BC/001868_01-100 - Flyover Opt 3 Rev. 0



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VIEWPORT A

VIEWPORT B



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
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- NOTES:**
-  Proposed cycle logo on blue surfacing
 -  Proposed road markings

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Purpose of issue
FOR INFORMATION

Client:


Scheme Ref. BC/001868-01
 Scheme title
Social Distancing Measures A1000 - Pop-up Cycle Lane Phase 1

Drawing title
Shared Footway /Cycle Facility Flyover - between Squires Lane and Strawberry Vale Option 4

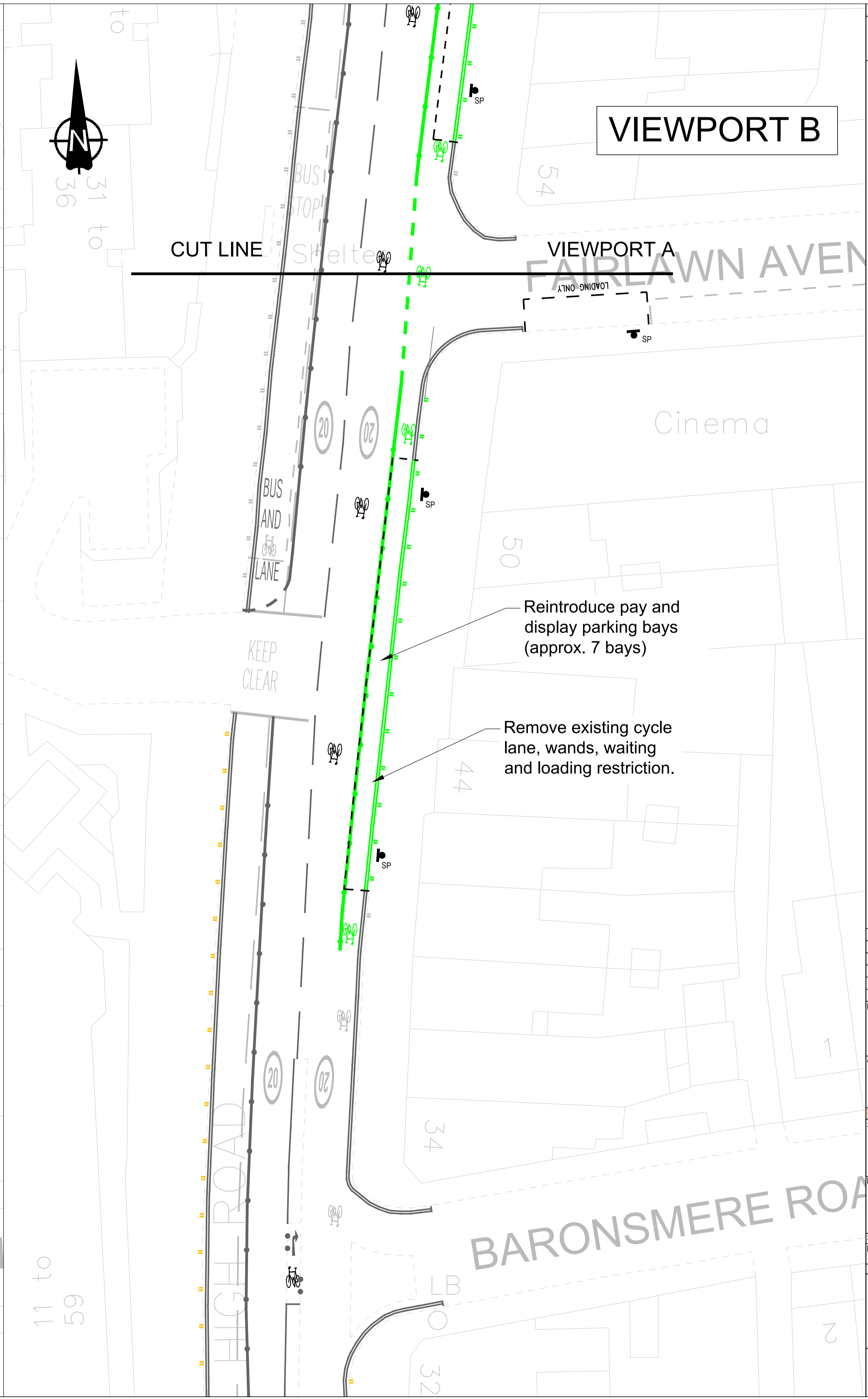
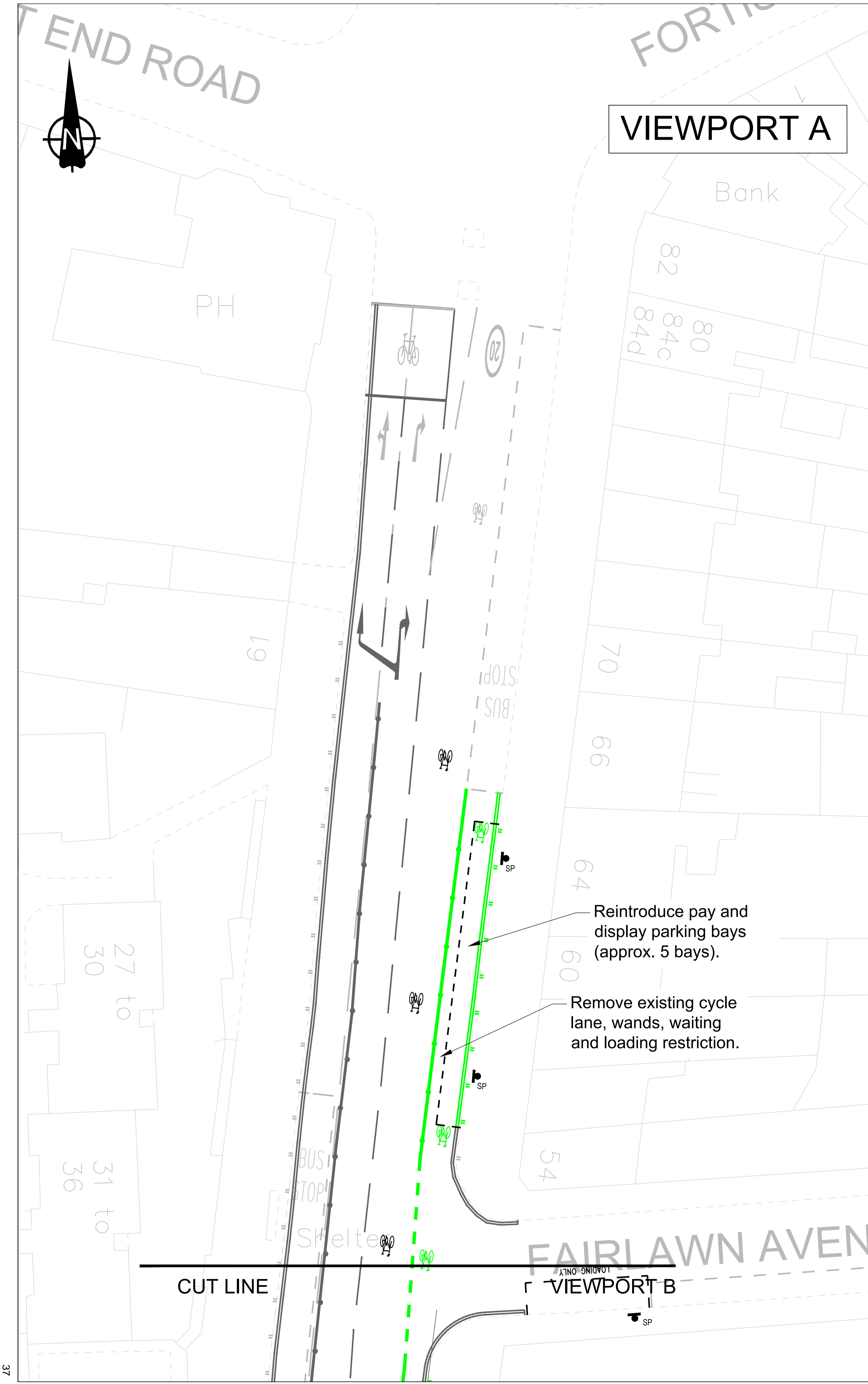
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BC/001868_01-100 - Flyover Opt 4
 Rev. **0**

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- NOTES:**
- Items to be removed
 - Proposed road marking
 - Proposed sign and post

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Purpose of issue
INFORMATION

Client:

Scheme Ref. BC/001868-01
 Scheme title **Social Distancing Measures A1000 - Pop-up Cycle Lane Phase 1**

Drawing title **Additional Parking Bays South of Fortis Green Junction**

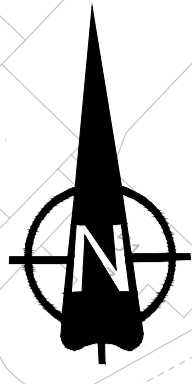
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Design	Drawn	Checked	Approved
JC	JC	SH	AG
Date: 15/02/22	Date: 15/02/22	Date: 17/02/22	Date: 18/02/22

BC/001868_01-100-Fortis Green Rev. **0**

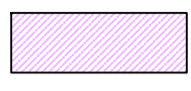
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**EAST
FINCHLEY
UNDERGROUND
STATION**



Proposed 20mph
speed limit extension.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
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NOTES:
 Proposed 20mph speed limit extension

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Initial issue	JC / SH	18/02/22	0

Purpose of issue
FOR INFORMATION

Client:


Scheme Ref. BC/001868-01
 Scheme title **Social Distancing Measures A1000 - Pop-up Cycle Lane Phase 1**

Drawing title
Proposed 20mph Speed Limit Extension

Scale @ A1: NTS

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Date: 15/02/22	Date: 15/02/22	Date: 17/02/22	Date: 18/02/22



BC/001868_01-100-20mph extension
 Rev. **0**

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Department
for Transport

Gear Change: One Year On



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Wheels for Wellbeing/Transport for London,
Bikeability Trust,
Living Streets,
Bikeability Trust,
Peter Kindersley.



Department
for Transport

Gear Change: One Year On

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Prime Minister's Foreword



About this time last year, I promised to kick off the most radical change to our city streets since the arrival of mass motoring. Perhaps rather quickly for a government promise, we seem to be achieving it.

Since last year, cycling in England has risen by 46 per cent – the greatest increase in postwar history. Cycling has increased by more in this one single year than it did over the whole of the previous 20 years. The roads are festooned with people wearing colours not found in nature. Hundreds of new schemes have created safe space for people to cycle and walk, supported pubs and restaurants that might otherwise have closed, and allowed us to get the exercise we need. For decades we mourned that children no longer played in the street. Now once again, in some places, they do.

But these achievements are not nailed on yet. So this document seeks not just to celebrate the success of our policies – but to repeat our commitment to them, to bust some of the myths about them, and to show how we will do more.

Spending on active travel this year will significantly increase – from the £257 million announced at last November's Spending Review to £338m, a rise of a third. We will use the money to invest in more low-traffic neighbourhoods and protected cycle lanes. And we will upgrade the National Cycle Network.

In the decade to 2020, road traffic in urban areas grew by a quarter, and on side streets by a third. It is forecast to rise even more in the next decade. There are only a few ways to deal with this. The best way is to make better use of the roads we've already got, by encouraging vehicles such as cycles and buses that take up less space per passenger.


I know many people think that cycling and walking schemes simply increase car traffic on other roads. But there is now increasing evidence that they do not. We sometimes think of traffic as like water: if you block a stream in one place, it will find the next easiest way. Of course some journeys by car are essential, but traffic is not a force of nature. It is a product of people's choices. If you make it easier and safer to walk and cycle, more people choose to walk and cycle instead of driving, and the traffic falls overall.

I support councils, of all parties, which are trying to promote cycling and bus use. And if you are going to oppose these schemes, you must tell us what your alternative is, because trying to squeeze more cars and delivery vans on the same roads and hoping for the best is not going to work.

And as the benefits of schemes increase over time, what opposition there is falls further. That is why schemes must be in place long enough for their benefits and disbenefits to be properly evidenced.

Almost exactly six years ago, in east London, we began the first of the transformational low-traffic neighbourhood schemes I funded as mayor. There was intense controversy: hundreds of protestors carried a golden coffin to symbolise the “death” we were supposedly causing to the local shops. But the council stuck it out, thank goodness. Now, the local shops and cafes have never been busier, air quality is up, opposition to the LTN has evaporated, and so has some of the traffic.

That is the future I want to see for a lot more places, and this plan will help achieve it.

A handwritten signature in black ink that reads "Boris Johnson". The signature is written in a cursive, slightly slanted style.

**Boris Johnson,
Prime Minister**



PLEASE KEEP A SAFE DISTANCE OF 2 METRES

PLEASE KEEP A SAFE DISTANCE OF 2 METRES

BACK IN THE SADDLE

Insurance and support package for new cyclists

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UP
cycling

Introduction

England's urban roads are filling up. Between 2010 and 2019, traffic in urban areas grew by a quarter – and on side streets, often unsuitable for volume traffic, it grew by a third. Ride-hailing services, more delivery traffic, and apps which direct people down rat-runs have all played their part.

Even before the pandemic, road traffic was predicted to grow up to 51% by 2050¹. Trends since, with the increase in delivery traffic and the hopefully temporary move away from public transport, are likely to further increase road demand in the short term. This may not be workable for much longer, at least in inner cities.

There are only a few ways to deal with the enormous growth in demand for roadspace. The first way is building more roads in urban areas, which is politically and practically difficult in most cities, with little public support for the demolitions of private property which would be required. There is also evidence that it does not work, simply attracting more traffic.

The second way is building more railways, which takes decades. The third is some form of congestion charging, as in London. The fourth is to make better use of the roads we already have, by encouraging vehicles such as buses and bikes that take up less space per passenger. In the short and medium term, this is the only way to keep the roads moving for the traffic that most needs to use them.

Even before the dramatic rises of the last year, active travel played an important role. Across England, before the pandemic, 28 per cent of all trips were made by walking and cycling². In the 2019 morning rush hours (7–10am), cycles made up about a third of the vehicles on the roads of central London, and up to 70 per cent on some main roads. London's new Blackfriars Bridge cycle track carried an average of 26 cyclists per minute, and the new Embankment cycle track – which takes up one lane of this four-lane road – moved more traffic than the other three lanes put together. Across London as a whole, there were around 700,000 cycle journeys in a full day, equivalent to about a quarter of the passengers on the entire Underground³.

Cycling was mass transit in other places too. In Greater Manchester, as many cycle journeys were made each day as on the region's Metrolink tram system.

Cambridge had among the highest levels of cycling in the English-speaking world, with 55% of residents cycling at least once a week, and 25% of people travelling by bike at least five times per week⁴.

Most cycling and walking journeys are short – but so are many car journeys. In 2019 around 58% of car trips were less than 5 miles and around a quarter were less than 2 miles. Evidence from the cycling and walking schemes installed in the last year, and before, is that making it easier and safer to walk or cycle increases the number of people walking and cycling, and reduces the number of people making short car journeys, meaning that traffic falls overall. It might not feel like it at first – and it sometimes happens gradually. But the evidence shows that, over time, it does happen. And the longer a scheme is in effect, the more it happens.

That is why, over time, cycling and walking schemes help all road users, not just cyclists or pedestrians. Everyone who walks or uses a cycle instead of a car is freeing space on the roads for others who still drive. Everyone who cycles or walks instead of driving improves not just their own health, but everybody else's health, by reducing pollution, traffic danger and noise. Low-traffic streets are better places to be, to shop and to eat. Taking away cars during the pandemic has delivered significant boosts to shops, restaurants and other businesses.

The debate about roads space is sometimes conducted on the assumption that everyone drives. But across the country, a quarter of all households have no car or van. In cities such as Newcastle, Nottingham, Hull, Manchester and Liverpool, 40 to 50 per cent of all households do not have cars. In inner London, it is 55 to 65 per cent. These figures are for households: the proportion of people without full-time access to a car or van is greater still⁵.

The pandemic has changed how we travel, but we need to change more. Without more people walking, cycling and going by bus, our cities and larger towns will become less and less pleasant, and harder and harder to move around.



Courtesy of: Sustrans

A year of achievement

In May 2020, we announced £2bn of new money for cycling and walking over the course of this parliament, a sixfold increase in the amount of dedicated funding for cycling and walking. During 2020/21, we provided over £320m to local authorities through a new Active Travel Fund, and to Transport for London through the first two tranches of its funding deal, to reallocate road space and create dedicated walking and cycling routes. In 2021/22, we will invest a total of £338 million in active travel, an increase of around a third from what we announced at the Spending Review in November 2020, reflecting the Government's ongoing commitment to this agenda. In addition to this, we have allocated £100m more for active travel in the third and latest tranche of the TfL funding deal.

All this comes on top of significant investment in walking and cycling that has already been announced.



Also in May 2020, we published new statutory Network Management Duty guidance⁶ requiring local authorities in urban areas to reallocate roadspace for cycling and walking. In July, we published *Gear Change*⁷, our ambitious cycling and walking plan for how the money will be spent, and *Local Transport Note 1/20*⁸, our detailed design guidance requiring much higher standards for cycling schemes.

Significant delivery of the spending commitments and promises made in *Gear Change* has occurred during the last year, and others will be fulfilled in this document.

We have delivered:

- Hundreds of school streets, where streets by a school are closed to motor traffic at peak times. These have dramatically improved pollution and safety risks to pupils and led to significant rises in the number of children cycling and walking to school. According to Hackney Council, which pioneered the concept, its first four school streets reduced traffic around the schools concerned by an average of 68 per cent, cut vehicle emissions at the schools by 74 per cent and increased the number of children cycling to school by 51 per cent.
- At least 150 Low Traffic Neighbourhoods to add to the thousands already in existence, where side streets are closed to through traffic to prevent rat-running. Substantial rises in walking and cycling have taken place in these areas and traffic has been reduced.
- More than 100 miles of new segregated cycle lanes on main roads, including around 60 miles in London alone.





Courtesy of: Peter Kindersley

Over the course of **2020/21** the Government has provided:

Over **£220 million** to local authorities through two tranches of the Active Travel Fund to reallocate road space and create dedicated routes for cycling and walking⁹.



Over **£100 million** to Transport for London to enable it to deliver the London Streetspace programme, which has seen over 60 miles of new segregated cycle lanes on the capital's streets, as well as to support a programme of adult cycle training.



£20 million of revenue funding to local authorities to allow them to deliver a wide range of programmes to get more people walking and cycling and access work and educational opportunities through the Access Fund.





Over **£20 million** to the Fix Your Bike voucher scheme and to the pop-up “Dr Bike” cycle maintenance facilities.



£13 million to support the Bikeability programme to teach children to cycle confidently and safely on the road.

£2 million to Cycling UK for the Big Bike Revival campaign, to help more people get cycling, particularly those from disadvantaged groups and from groups less likely to cycle.



£2 million to Living Streets for the “Walk to School” outreach campaign to get more children walking to school as schools reopened.

Further funding from wider Government transport, health and growth initiatives, such as the Transforming Cities Fund and Sport England’s Local Delivery Pilots.



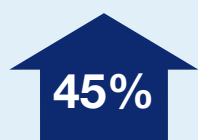
Helped by these measures and by the reduction in traffic brought about by the pandemic, the sale and use of cycles has boomed in a way not seen in almost a century.

Retail cycle spending rose by 45 per cent in 2020 – which was the first year in history that people bought more than £1bn worth of cycles. Including maintenance, parts and accessories, the total value of the retail market was £2.31bn¹⁰. The chief executive of the country's largest cycle retailer, Halfords, said that despite this growth the company's surveys found that a further 37 per cent of UK adults wanted to buy a bike within the next six months¹¹.

The number of miles cycled on the road rose to 5 billion¹², overall a 45.7 per cent increase on 2019. Cycling was the only form of transport to grow during the pandemic, with cycling levels at times 100 or even 200 per cent greater¹³ than before.

Most of the new schemes have seen large and sustained rises in cycling. Among the biggest were a new lane on London Road, Leicester, where cycling levels rose by 180 per cent¹⁴, and a new track on Chiswick High Road, west London, where the number of people cycling increased by 72 per cent, up to 2700 per day¹⁵. Cycling and walking in several of the low traffic neighbourhoods has more than doubled.

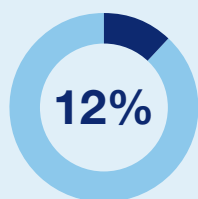
Growth in the UK cycling market



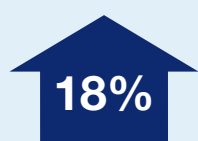
The total value of the UK cycling market in 2020 was estimated as £2.31 billion, a 45% increase over 2019 as Covid-19 triggered a sharp rise in sales of bikes and other products.



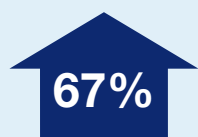
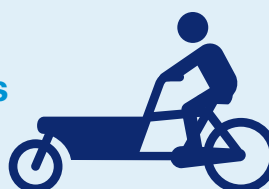
An estimated £1.03 billion was spent on pedal cycles, the first time in history that expenditure on cycles in the UK has surpassed one billion pounds.



E-cycles accounted for 12% of the market by value, reaching £280 million. Expenditure on parts and accessories increased to £880 million with £40 million spent on services such as cycle repair and maintenance, boosted by the Government's Fix Your Bike Voucher Scheme.



The volume of pedal cycle sales increased by 18%, reaching an estimated 3.1 million units.



The number of e-cycles sold rose by 67% to an estimated 160,000 units.

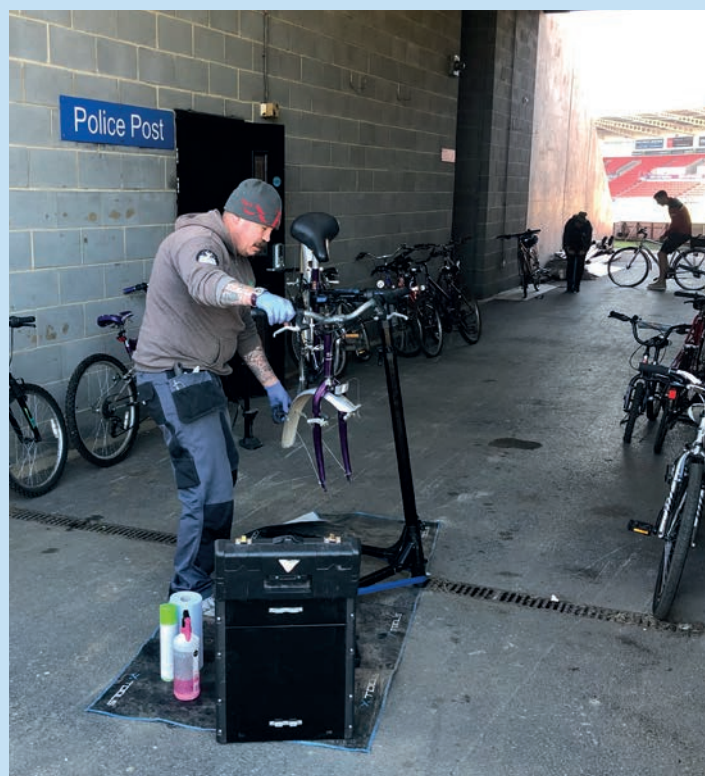


Fix Your Bike vouchers



The Government released over 400,000 vouchers to people in four tranches to help them get their cycles serviced or repaired. Provisional data suggests that around 40% of voucher users had cycled less than once a week or not at all before using the voucher; around 40% intended to use their cycle to replace car journeys; and around 60% of vouchers were redeemed in small businesses, bringing them a welcome boost.

Further funding was provided to Cycling UK to deliver Dr Bike events in workplaces and communities to act as a 'triage' service for cycle repairs.



Access Fund

We provided £20 million of funding to local authorities in 2020/21 under the Access Fund, to help people access work and education on foot and by cycle. The fund supported a wide range of measures including adult cycle training, grants for businesses, workplace and school travel planning, cycling and walking festivals and community events, cycle and walk to school initiatives, and loans of e-cycles. A further £2 million will be provided to support the Commonwealth

Courtesy of: Cycling UK

Games Cycling for Everyone programme in the West Midlands¹⁶. Additionally, £90,000 has been made available to enable car park operators to introduce more Park Active schemes¹⁷.



Courtesy of: Wheels for Wellbeing

Capability Fund

The new Local Authority Capability Fund will enable local authorities to develop infrastructure plans and deliver behaviour change activities to promote cycling and walking in their areas. It supports the commitment, made in the Prime Minister's Cycling and Walking Plan, to increase the capabilities of local authorities to plan good active travel infrastructure, including building more expertise and undertaking more evidence-based planning.

E-cargo bikes



Courtesy of: Sies Petcare

access e-cargo bikes at a discount, in an extension of the current support programme.

The Government continued to support e-cargo bikes during the pandemic through its £2 million funding programme. Over 600 e-cargo bikes have now been funded and are in use on roads across England. The Government will now provide a further £1.5 million to allow more businesses to

Walk to School Outreach

The Department gave a total of £2m to the charity Living Streets to deliver more Walk to School initiatives in 2020/21, with a focus on getting more children walking to school as schools returned from lockdown in September. The programme helps children arrive at school happier, reduces peak time congestion and improves air quality. This has enabled the Walk to School Outreach programme to help 735 schools to get more pupils walking to school. Research by Living Streets has found that on average the programme sees walking rates jump by around 23% and reduces congestion outside schools by 30%¹⁸. The Department is now providing a further £2.1 million in 2021/22, which should allow Living Streets to support more than 1,000 schools.



Courtesy of: Living Streets

Big Bike Revival



Courtesy of: Cycling UK

The Department is providing a further £2 million in 2021/22.

Cycle Rail

The most recent round of cycle rail funding in 2020 provided a further £2.5 million to Train Operating Companies to deliver 1,180 new cycle parking spaces at 30 stations. Accelerated delivery took place at many rail stations which were quieter during the lockdown periods. This funding plays a key role in encouraging more people to cycle to stations. A further £2 million will be invested in 2021/22 to create better access routes to stations, as well as high quality, accessible, safe and secure cycle parking improvements.

The Cycle Rail Working Group (CRWG) is working with British Transport Police (BTP) to cross reference existing ownership registers, allowing police to trace the owners of stolen cycles. This will help tackle cycle theft which can be a barrier to people cycling.

The Big Bike Revival programme is delivered by the charity Cycling UK¹⁹, and aims to enable people to start or return to cycling via free events held in their local community. Events focus on teaching skills, fixing cycles and increasing cycle confidence through local, short led rides. The Department provided £2 million of funding for the programme in 2020/21, which has enabled over 2,500 Dr Bike events to be delivered, with 13,000 cycles fixed. Due to the coronavirus restrictions, the majority of community events could not take place. Early delivery in 2020 shifted focus to support key workers to cycle for essential journeys, later moving to supporting widespread delivery of Dr Bike events nationwide. Research by Cycling UK shows on average, 47% of attendees were female, 45% were non-regular cyclists and 25% identify as being from an ethnic minority²⁰.



Courtesy of: Chiltern Railways



Our new and continuing commitments



We will increase funding by 30% from the amount announced at the Spending Review

We announced at the Spending Review in November 2020 that we would spend £257 million on cycling and walking in the financial year 2021/2. The total spend this year will now be £438 million, comprising a further £81 million above the £257m for cycling and walking in England outside London and a further £100m for active travel in London in the latest TfL settlement deal to December 2021.

We will use this to deliver more cycle lanes, low-traffic neighbourhoods, and school streets

There is now clear evidence that these schemes work and are popular. Hundreds of schemes have already been delivered, with many more proposed and under construction and we have encouraged local authorities to be ambitious with their proposals this year.



We will discourage the weakening or removal of schemes without proper evidence, and require full consultation that fairly reflects local views

We are revising our additional Network Management Duty guidance to make clear our expectation that schemes will remain in place and that schemes need to be given the time to bed in. The guidance also reminds authorities that gathering and publishing proper evidence about the effects of schemes is essential; and that any proposal to remove a contested scheme should involve a process that genuinely reflects local opinion – typically professional, representative polling. We are writing to all local authorities to underline this position.

We will reduce funding to councils which do not take active travel seriously, particularly in urban areas

This includes councils which remove schemes prematurely or without proper evidence, and councils which never installed them in the first place. As *Gear Change* said, an authority's performance on active travel will help determine the wider funding allocations it receives, not just on active travel. We will require more from all local authorities, urban or rural, but we will not take a one-size-fits-all approach.

We have invited bids for Mini Hollands outside London

In London, three outer boroughs with low levels of cycling were chosen through competition as “Mini-Hollands,” with intensive, transformational spending on their roads and streetscapes to make them, over time, as cycle and pedestrian-friendly as their Dutch equivalents. Segregated lanes were installed on main roads, low-traffic neighbourhoods were put in, and pedestrians were given plenty of extra space. We have now invited bids from non-London local authority areas, to benefit from intensive investment in mini-Holland schemes on the same model, and will award funding to up to 12 authorities.

We have invited bids for Active Travel social prescribing pilots

In *Gear Change*, we committed to developing a “cycling and walking on prescription” programme to overcome health inequalities and increase levels of physical activity. GPs and other referral routes would prescribe cycling and walking, and councils would install infrastructure to give people the confidence to cycle safely. We have invited local authorities to bid for feasibility study funding to develop social prescribing projects.

We are consulting on giving metro mayors new powers over the major roads in their areas

Like the Mayor of London, mayors in the eight English city regions have strategic responsibility for transport in their areas, but unlike him they have few powers over their main strategic roads. This has held back the

development of holistic transport approaches, including for buses and active travel. We are launching a consultation on giving the metro mayors powers over their key route networks similar to those exercised by Transport for London in the capital. As in London, control of most roads would remain with the constituent authorities. Subject to the results of the consultation, we intend to legislate next year.

We will allow councils to enforce against traffic offences from this year

In December we will commence the remaining elements of Part 6 of the Traffic Management Act 2004, allowing local authorities outside London to apply for an order designating powers to civilly enforce moving traffic contraventions; examples include disregarding one-way systems or entering mandatory cycle lanes. The police will retain powers to enforce such restrictions, should they need them. The change has already largely taken effect in London, where it has significantly reduced police workload on traffic offences, allowing officers to prioritise other matters, while also improving enforcement.

We will work across government to allow some local authorities to pilot delivery of waste collection management schemes

Parts of some cities are served by as many as 50 delivery and waste management companies, with multiple pickups from businesses on the same street and large numbers of vehicles carrying out duplicating trips. Voluntary projects in areas such as the City of Westminster, which aim to reduce the number of suppliers, have brought about significant reductions in commercial vehicle traffic. Following a commitment in Gear Change, the Department for Environment, Food and Rural Affairs has just consulted on franchising waste management operations. Subject to the response to the consultation, the next stage will be pilots allowing local authorities such as Westminster to better co-ordinate the number of waste collections, enabling competition and choice while reducing the number of operators and vehicle movements.



We will improve the National Cycle Network

The National Cycle Network (NCN) is a well used and important resource, for both walkers and cyclists. It stretches over 12,000 miles (UK wide) and more than half the population lives within one mile of the Network. In 2019, over 4 million people used the Network to make nearly 650 million journeys. Given its sheer size, it is understandable that some sections (around a third) are in a poor state, with low quality surfacing on many off road stretches, making it difficult for all but the most experienced to use. £30m of the new money will be used to deliver improved surfacing, widened paths and greater accessibility (through the removal of barriers).

Active Travel England, our new body for cycling and walking, will begin work in the autumn

Active Travel England (ATE) will be a new commissioning body and inspectorate which will hold the cycling and walking budget. It will examine all applications for funding and refuse any that are not compliant with the new national LTN 1/20 standards. It will inspect finished schemes and ensure that local authorities have funding allocations reduced where schemes have not been completed as promised, or have not started or finished by the stipulated times. It will act as a statutory consultee on larger planning applications to ensure that they provide properly for walking and



Courtesy of: Julie Howden/Sustrans

cycling. The job advertisements for the Commissioner (equivalent to a chair role), Chief Executive and Head of Inspections will be launched shortly. Appointments will be made in the autumn and work will begin shortly afterwards.

The Department has also appointed Dame Sarah Storey, the Active Travel Commissioner for the Sheffield City Region and the most successful female British Paralympian of all time, as a Non-Executive Director, which will help ensure that walking and cycling considerations are integral to the Department's wider policies.

We will publish a new version of The Highway Code



We consulted on changes to The Highway Code to improve safety for cyclists, pedestrians and horse riders last year, receiving nearly 21,000 responses. Feedback was sought on three key areas:

- A hierarchy of road users which ensures that those road users who can do the greatest harm have the greatest responsibility to reduce the danger or threat they may pose to others;
- Strengthening pedestrian priority on pavements and that drivers and riders should give way to pedestrians crossing or waiting to cross the road;
- Establishing guidance on safe passing distances and speeds and ensuring that cyclists have priority at junctions when travelling straight ahead.

Respondents demonstrated a high level of agreement for the proposed changes, welcoming the timing as more people choose to cycle and walk. The Department will therefore seek to introduce all the changes and will lay the finalised alterations before Parliament in winter 2021 with the changes coming into force early in 2022.

We will help train a further 1,000 Bikeability instructors to offer training to every child and adult that wants it

The Government has a manifesto commitment to offer Bikeability training to every school child. The Prime Minister announced in his cycling and walking plan that this commitment would extend to any adult that wanted cycle training. Despite challenges with delivery due to Covid-19 restrictions, over 140,000 children received Bikeability training in 2020. The Department has continued to support the cycle training industry, ensuring that cycle instructors were able to benefit either from existing Coronavirus Job

Retention Support measures or from other forms of support. We have launched a bursary scheme to help recruit up to a thousand more instructors in 2021–22 as part of the Department’s £18 million of support for cycle training in 2021/22.



Courtesy of Bikeability Trust

We will consider whether more of our historic railway structures could be used for walking or cycle routes or other transport purposes.

There has been concern about the fate of a small proportion of the 3,250 railway structures managed by Highways England. By the autumn, we will establish a formalised framework and engagement process for these structures to understand, in each case, whether there is a realistic prospect of it being used for active travel or other transport purposes in future; and to ensure that the views of local stakeholders, including active travel groups and the local authority, are fully taken into account. Until then, any infilling or demolition on these structures will be paused, unless there is an immediate need to act on grounds of public safety.



Courtesy of Jenny Box

We will launch a national e-cycle pilot programme enabling more people across the country to access e-cycles

Electrically assisted cycles can make cycling accessible to even more people, enabling those with more challenging journeys or longer commutes to take up cycling. The Government has supported nine local authorities with £1.48 million to deliver a range of schemes which will allow different approaches to be piloted, ahead of the roll-out of a new national e-cycle support programme later in 2021. A further pilot was announced in Cornwall as part of the G7 event in June 2021.

A national e-cycle support programme will be launched in the autumn of this year.

We will publish a new road safety strategic framework

Improving road safety will not only help reduce human suffering – over the last decade around 1,800 people have died every year when using our roads, and over 25,000 a year have experienced serious, and often life changing, injuries²¹ – it can also help us achieve a range of wider benefits, including helping increase the uptake of active travel.

We know from the National Travel Attitudes Study that safety concerns are a key barrier to engaging in cycling – over 60% of respondents to recent waves



Courtesy of: Living Streets

of the National Travel Attitudes Study think it is too dangerous to cycle on the roads²². These safety concerns are not without foundation: cyclists and pedestrians face a greater risk of injury on our roads than vehicle occupants²³ and between 2006 and 2020, there have been greater reductions in fatalities for car occupants and motorcyclists than for pedestrians and pedal cyclists²⁴.

The Government is therefore starting work on a new integrated road safety strategic framework. It will draw on the Safe Systems approach²⁵, and will consider how to improve road safety, and the perception of road safety, for vulnerable road users.

We will act on pavement parking

The Government recognises that vehicles parked on the pavement can cause serious problems for pedestrians, particularly people with mobility or sight impairments, as well as those with prams or pushchairs. It also acknowledges that in some areas, for example in narrow streets with no off-street parking, pavement parking can be necessary to maintain the free passage of traffic, and access for emergency services.

In response to the Transport Select Committee's 2019 report on pavement parking, the Department undertook a public consultation in 2020 on possible solutions to this complex problem. The proposed solutions included giving councils the power to enforce against obstruction of the pavement; and introducing a London-style prohibition across the rest of England. The Department received over 15,000 responses to the consultation and is now analysing these carefully. The Government's response to the consultation will be published later in the year.



Courtesy of: Leicester City Council

Low traffic neighbourhoods: the evidence so far

Low Traffic Neighbourhoods (LTNs) are where residential side streets are closed to through motor traffic to prevent rat-running with a physical barrier or increasingly an ANPR camera. No street is closed entirely: you can still drive to or from any point in an LTN, but you might have to take a longer way round.

LTNs have been perhaps the most contested element of our recent cycling and walking programme – though the concept, under various names, has been widespread for decades. Many of the LTNs in England existed before 2020, in some cases since the 1970s. It is estimated that more than 25,000 road closures of the type used in LTNs existed before the pandemic.

There is now traffic data, collected by the councils concerned, from several of the early post-pandemic LTN schemes installed last summer, typically covering their first few months. Changes in and around the LTN area can also be compared with changes in wider traffic volumes well away from it, allowing us to separate as far as possible “LTN-specific” effects from the wider effects of the pandemic. This data is preliminary, and only gives an indication at this stage.

There is also data from longer-established schemes installed before the pandemic. In these, traffic from before the installation of the scheme is compared with traffic in the latest available year before the pandemic, usually 2019 or the financial year 2019/20.

In both kinds of scheme, longer-established and recent, the data shows significant reductions in traffic, and significant increases in cycling and walking, *within* the LTNs, as you would expect.

But it also shows that a common claim about the LTNs – that they simply displace traffic to other roads – is in most cases not happening. Sometimes it did happen at the beginning, as travel patterns adjusted. But now the schemes have been in place for longer, councils are also reporting reductions in traffic on most (though not yet all) of the roads *around* the LTNs.



Traffic on the boundary main roads surrounding 12 new LTNs was surveyed by the councils concerned before and after each scheme. This shows, of the 50 boundary roads surveyed, traffic had risen on 15 of them, and fallen on 35.

LTNs work because the people living in them, several thousand in each area, change their travel behaviour – taking fewer short local journeys by car and walking or cycling more. This takes local traffic away from the surrounding roads too. On those roads, the reduction in these local car journeys appears, in most though not in all cases, to outweigh any increase caused by the diversion of longer-distance car journeys by people passing through.

But changes in travel behaviour don't happen overnight. We are noticing that the longer a scheme is in place, the greater its effect, on both the LTN and the surrounding roads. This is why we are clear that schemes must be given enough time to prove – or disprove – themselves.

Other claims sometimes made about LTNs are not true. Using years of data and more than 100,000 emergency callouts, academic research found that they do not increase emergency service response times – echoing statements made by the emergency services themselves about the post-pandemic LTN schemes²⁶. Indeed, they benefit public safety. New research shows that the pandemic LTN schemes have halved road injuries in their areas, compared with no reductions over the same period in non-LTN areas²⁷.

Other research has shown that LTNs reduce street crime, increasing safety by putting more pedestrians and cyclists on the streets²⁸. And they are socially inclusive: in London, people in areas of higher deprivation were 2.7 times more likely to live in a 2020 LTN compared to those in the least deprived quarter of the population²⁹.



Public opinion and consultation on schemes

Cycling and walking schemes can create passionate opposition, but there is now clear evidence that neither the opposition – nor the passion – reflects public views.

Multiple independent professional polls over the last year, and the government's own polling and surveys, show consistent public support for the measures on cycling and walking we and councils have taken: more than two to one on average among those who express a preference. Support for individual schemes, such as low-traffic neighbourhoods, by people living in the areas concerned is at similar levels, whenever polled or surveyed professionally.

Contrary to claims of a 'culture war,' most people do not feel strongly about these schemes. The majority of both support and opposition is "tend to support" or "tend to oppose." There are often significant numbers of people who, when asked, neither support nor oppose schemes. Only a very small minority express strong opposition, typically between 7 and 15 per cent of overall respondents.

What opposition there is to cycling and walking schemes also appears to diminish in time. In Walthamstow Village, east London, a 2015 LTN scheme caused significant opposition, including demonstrations attended by hundreds of people. The original consultation revealed roughly 50-50 support and opposition. A year after the scheme went in, only 17.6 per cent wanted to adjust the road closures.

There appears, however, to be a gap between real and perceived public opinion on this subject. One poll showed people believe that there is more opposition to these schemes than there actually is: that even though respondents themselves supported them, they believed that the public as a whole did not.

It is therefore important that consultation captures a genuinely representative picture of local views. That means listening to all, including the quieter and less vocal, not simply the most passionate; it is intended to inform decisions that members and officers make on these schemes, not to substitute for that decision making; and the consultation materials must include proper evidence and information about the effects of the proposals.

While schemes will usually have majority support, no scheme (or indeed almost any meaningful policy of any kind) will ever have unanimous support. Some councils appear to be searching for a formula which can make meaningful cycling and walking schemes acceptable to everyone, but this does not exist. We are clear that councils must not expect or require universal support and must avoid allowing any group to exercise a veto.

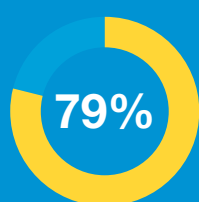
We revised our Network Management Duty (NMD) guidance³⁰ to state that measures should be “taken as swiftly as possible, but not at the expense of consulting local communities” and that “local residents and businesses should... be given an opportunity to comment on proposed changes” to schemes. These requirements apply as much to the removal or modification of existing schemes as to the installation of new ones. Our updated NMD guidance includes more about how to ensure that public views on contested schemes are captured accurately, through professional polling.



Public attitudes towards Low Traffic Neighbourhoods

There is growing evidence that people do support changes to their streets to enable walking and cycling. A recent Government-commissioned survey highlighted the following results from those living in, or near, a new Low Traffic Neighbourhood (LTN):

Supporting the reduction of traffic:



79% of respondents supported a reduction of traffic in their local area, including:

71% of respondents with mobility issues

69% of local business owners



Supporting the reallocation of road space for walking and cycling:



69% of respondents supported reallocation of local road space for walking and cycling, including:

58% of respondents with mobility issues

61% of local business owners



Supporting the local LTN:



61% of respondents supported their local LTN and **29%** were opposed, including:

49% of respondents with mobility issues supported, **36%** opposed

58% of local business owners supported, **42%** opposed



Local cycling and walking schemes

Across England, local authorities have been able to deliver high-quality cycling and walking schemes which have enabled many more people to make local journeys on foot or by cycle. The following case studies provide a snapshot of the benefits that have been unlocked:



Birmingham

In October 2020, eight modal filters were installed in Kings Heath, Birmingham across the area to the west of the High Street. This included the pedestrianisation of a section of York Road. This 'Places for People' scheme aims to reduce the amount of traffic on residential streets and encourage more walking and cycling. 63% of residents supported or strongly supported the LTN.



Courtesy of: Peter Kindersley

Dulwich, London

Three Streetspace schemes were introduced across Dulwich, introducing both permanent and permeable measures to reduce vehicle traffic. Initial monitoring shows positive changes compared to 2019 data, with the volume of motor traffic decreasing in some cases by 79%, and at its peak, cycling levels around Dulwich Village increasing by 103%. The volume of cycles on external (boundary) streets has increased by between 43% to 70%³¹.



Courtesy of: Wheels for Wellbeing

Leicester

In Leicester, £7.8 million of Transforming Cities Fund investment has enabled nine major infrastructure projects to be undertaken. These include segregated cycle paths, purpose-built junctions and improved pedestrian footways and bus stops. Early monitoring shows a 17% rise in cycling in the last year.

City Mayor Peter Soulsby said of the Belgrave Gate scheme: “The removal of the Belgrave Flyover has had a dramatic effect on the look and feel of this area, and has hugely improved the wider public realm, as well as creating a far more pleasant route into the city.

There were some concerns locally about the impact on traffic of removing the flyover, but the major congestion feared has not happened, and it's very encouraging to see so many pedestrians and cyclists are now using this safer, more open route.”



Courtesy of: Leicester City Council



Courtesy of: Living Streets



Courtesy of: Doncaster City Council

Doncaster and Barnsley

Projects in Barnsley and Doncaster, delivered by Sustrans, have improved 2.5 miles of poor-quality sections on the Trans Pennine Trail, removing restrictive barriers to help make the route accessible to everyone. The total value of improvements in South Yorkshire is £1.7m, with an additional project in Sheffield due to be completed by September 2022.

The projects in Barnsley and Doncaster have improved accessibility, surface and drainage on the Trans Pennine Trail while also improving the habitats and biodiversity along the path. The improvements have made the path more accessible for all, whether walking, on a cycle, riding a horse, using a wheelchair or pushing a pram.

Gillian Ivey, Chair of the Trans Pennine Trail Partnership, said: "This latest phase of works in Barnsley has really shown what can be achieved through partnership working. It's wonderful to see Sustrans as a national organisation supporting the Trans Pennine Trail's partnership's initiative to improve accessibility in terms of surfacing and access controls."



Courtesy of: Newcastle City Council

Newcastle

Plans are underway to make the temporary changes on Queen Victoria Road in Newcastle permanent, following positive public feedback. The changes will make it easier and safer to travel on foot and by cycle, particularly for key workers at the Royal Victoria Infirmary. The scheme will include a protected two-way cycle lane, safer crossing facilities and a new bus stop outside the hospital.

The city council has secured £2.3 million to carry out the work; this includes £1.3m funding through the Active Travel Fund.

Cllr Arlene Ainsley, cabinet member for transport and air quality at Newcastle City Council, said: “The changes we have made on Queen Victoria Road to make it safer and easier to walk and cycle have resulted in very positive feedback, particularly from hospital staff who travel to work this way.”

Essex

Delivered as part of the £15m Chelmsford City Growth Package, a long stretch of Broomfield Road has been transformed into a sustainable transport corridor providing a safe, attractive and sustainable option for active travel. This scheme has been based on two previously installed schemes which reported a 38% and 100% increase in cycling. A full impact study is planned for later in 2021.

Before this transformation, Broomfield Road suffered from congestion and the existing cycle route desperately required an upgrade to reflect its status as a Sustainable Travel Corridor. Buses no longer have to wait for a break in traffic to pull out into the main carriageway, reducing travel times. By encouraging increased use of sustainable transport modes, especially for shorter journeys, economic growth can be supported.



Courtesy of: Wheels for Wellbeing

Waltham Forest

An early example of a Low Traffic Neighbourhood is the Waltham Forest “Mini-Holland”. With significant investment (£27m) from Transport for London in 2015, Waltham Forest was transformed with over 16 miles of segregated cycle tracks, 62 new and improved crossings, and more than 700 new trees. The scheme has led to significant changes in behaviour, with an increase of up to 45% in the average daily number of cyclists and a significant increase in the amount of walking³². The Mini-Holland scheme is also having a positive impact on air quality (a reduction of 95% in the number of households exposed to more than the EU recommended amount of Nitrogen Dioxide) and increased life expectancy, thanks to increased physical activity levels³³.



Courtesy of: Jon Bewley/photob/Sustrans

Endnotes

- 1 [Road Traffic Forecasts 2018, DfT, 2018](#)
- 2 [Walking and Cycling Statistics – England: 2019, DfT, 2021](#)
- 3 [Update on the Implementation of the Quietways and Cycle Superhighways Programmes, TfL, 2016](#)
- 4 [Walking and Cycling Statistics – England: 2019, DfT, 2021](#)
- 5 [2011 Census, Office for National Statistics](#)
- 6 [Reallocating Road Space in Response to COVID-19: statutory guidance for local authorities, DfT, 2020](#)
- 7 [Gear Change: a bold vision for cycling and walking, DfT, 2020](#)
- 8 [Cycle infrastructure design \(LTN 1/20\), DfT, 2020](#)
- 9 [Active Travel Fund Final Allocations, DfT, 2020](#)
- 10 [COVID Cycling Boom will Triple E-bike Sales by 2023, Bicycle Association, 2021](#)
- 11 [Halfords Group Financial Year 21 Results, 2021](#)
- 12 [Road traffic estimates in Great Britain: 2020 - GOV.UK \(www.gov.uk\)](#)
- 13 [Transport use During the Coronavirus \(COVID-19\) Pandemic, DfT, 2020](#)
- 14 [Changes to City's Network of Pop-up Cycle Lanes and Social-Distancing Measures, Leicester City Council, 2021](#)
- 15 [New Data Highlights Success of Trial Cycleway in Chiswick Including Improved Road Safety and Air Quality, TfL, 2021](#)
- 16 [Legacy Plan, Birmingham 2022, 2021](#)
- 17 [Park Active Website](#)
- 18 [Government Announces New Funding for the Walk to School, Living Streets](#)
- 19 [About the Big Bike Revival, Cycling UK](#)
- 20 [About the Big Bike Revival, Cycling UK](#)
- 21 [See chart 6 in Reported Road Casualties in Great Britain 2019, DfT, 2020](#)
- 22 [National Travel Attitudes Study: Wave 3, DfT, 2020](#)
- 23 [See chart 6 in Reported Road Casualties in Great Britain 2019, DfT, 2020](#)
- 24 [Reported Road Casualties Great Britain - Provisional Results: 2020, DfT, 2021](#)
- 25 [The Safe System, Towards Zero Foundation](#)

- 26 [The Impact of 2020 Low Traffic Neighbourhoods on Fire Service Emergency Response Times in London'](#), Goodman, Lavery, Aldred, 2021
- 27 [The Impact of Introducing Low Traffic Neighbourhoods on Road Traffic Injuries'](#), Lavery, Aldred, Goodman, 2021
- 28 [The Impact of Introducing a Low Traffic Neighbourhood on Street Crime in Waltham Forest'](#), Goodman and Aldred, 2021
- 29 [Equity in New Active Travel Infrastructure: a spatial analysis of London's new Low Traffic Neighbourhoods'](#), Aldred, Verlinghieri, Itova, Goodman, 2021
- 30 [Traffic Management Act 2004: network management in response to COVID-19](#), DfT, 2021
- 31 [Dulwich LTN Monitoring Report](#), Southwark Council, 2021
- 32 [Enjoy Waltham Forest Walking and Cycling Account](#), Waltham Forest Council and TfL, 2019
- 33 [Celebrating Five Years of Mini-Holland in Waltham Forest](#), Waltham Forest Council, 2019

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30 July 2021

To: Leaders of all combined, transport and highway authorities in England

Dear Council Leader,

Active travel schemes supported by Government funding

Over the last year, cycling has risen by 46%. In 2020, we saw the highest level of cycling on the public highway since the 1960s, and the greatest year-on-year increase in post-war history. Many people have started cycling for shorter journeys, saving appreciable amounts of pollution, noise, CO2 and traffic danger. In some cities the delivery bike has become as normal a sight as the delivery van. Even after these remarkable rises, according to one leading retailer, a further 37 per cent of the population now wants to buy a bike.

These things have been made possible, in part, by hundreds of school streets, pop-up cycle lanes, and Low Traffic Neighbourhoods implemented under the Government's Emergency Active Travel Fund (EATF) and under statutory Network Management Duty guidance. For all the controversy these schemes can sometimes cause, there is strong and growing evidence that they command public support.

I do know that a few councils have removed, or are proposing to remove, cycle schemes installed under the fund, or to water them down. Of course I understand not every scheme is perfect and a minority will not stand the test of time, but if these schemes are not given that time to make a difference, then taxpayers' monies have been wasted. Schemes need time to be allowed to bed in; must be tested against more normal traffic conditions; and must be in place long enough for their benefits and disbenefits to be properly evaluated and understood. We have no interest in requiring councils to keep schemes which are proven not to work, but that proof must be presented. Schemes must not be removed prematurely, or without proper evidence and too soon to collect proper evidence about their effects.

As the Secretary of State stated in a letter to all local authorities in November 2020, since the peak of the emergency had passed, we now expected local

authorities to consult more thoroughly. We revised our Network Management Duty (NMD) guidance to state that measures should be "taken as swiftly as possible, but not at the expense of consulting local communities" and that "local residents and businesses should... be given an opportunity to comment on proposed changes" to schemes. Please note these requirements also apply as much to the removal or modification of existing schemes as to the installation of new ones. In many cases where schemes have been removed or modified, there appears to have been little or no consultation.

The Secretary of State also stated in his November letter that consultation should include objective tests of public opinion, such as professional polling, to gather a truly representative picture of local views. Obviously the views of the local Member of Parliament should be taken into account.

Premature removal of schemes carries implications for the management of the public money used in these schemes and for the Government's future funding relationship with the authorities responsible. The Department will continue to assess authorities' performance in delivering schemes and, following the precedent we have already set, those which have prematurely removed or weakened such schemes should expect to receive a reduced level of funding.

We are also publishing updated Network Management Duty guidance on this subject, describing in more detail the obligations of authorities to allow adequate time to evaluate schemes and to engage with local people and protected groups using professional opinion surveys, including on any proposed removal. Authorities which are proposing to remove or weaken schemes should not proceed with their plans unless they are satisfied that they have had regard to the guidance.



CHRIS HEATON-HARRIS

MINISTER OF STATE FOR TRANSPORT



Environment Committee

8th March 2022

Title	Highway Infrastructure Safety Inspection Manual (HISIM) 2022
Report of	Chairman of Environment Committee
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	Appendix 1 – Safety Defect Intervention Criteria/non-intervention examples Appendix 2 – Highway Infrastructure Safety Inspection Manual(HISIM) 2022 Appendix 3 - Operational Network Hierarchy (ONH) 2022
Officer Contact Details	Geoff Mee, Executive Director, Environment Goeff.Mee@barnet.gov.uk

Summary

This report seeks the Committee’s approval (on behalf of LBB as the Highway Authority) for the 2022 reviewed and updated LBB Highway Infrastructure Safety Inspection Manual (HISIM). This document supersedes the previous 2013 LBB Highway Inspection Manual. Intervention levels have not changed but best practice now requires a risk assured and financial affordability policy to be added to the manual.

The HISIM is a key quality and risk assurance element of the LBB Strategic Asset Management Plan (Highways) and follows the “2016 Well-Managed Highway Infrastructure: A Code of Practice” national guidance. The HISIM incorporates the LBB Operational Network Hierarchy (ONH), which is reviewed regularly as the network changes, and safety inspection operational plans. The HISIM defines the LBB standards for safety defect intervention action thresholds for carriageway and footway trips and potholes, which are not changing.

An annual budget of £1,415,000 in 2021/22 is assigned to achieve the policy standards. This budget is complemented by other revenue and capital funds, including the Network Recovery Plan, to maintain Barnet's highway infrastructure.

Officer's Recommendations

- 1. That the Committee approves the 2022 LBB Highway Infrastructure Safety Inspection Manual (HISIM) as part of the Authority's overall Highway Infrastructure Asset Management system.**
- 2. That the Committee delegate authority to the Executive Director for Environment to review the Operational Network Hierarchy as required, in consultation with the Chairman of the Environment Committee, to ensure a risk-based approach to highway safety inspection is maintained.**

1. WHY THIS REPORT IS NEEDED

- 1.1 This report is needed to evidence that LBB as Highway Authority has in place a fit for purpose risk management system to ensure the safety of highway infrastructure users is achieved within the financial resource. The system is documented in the LBB Highway Infrastructure Safety Inspection Manual 2022 (HISIM) and is based on current best practice guidance in the 2016 "Well-Managed Highway Infrastructure: A Code of Practice". The system is based on defined criteria and measurable thresholds for highway infrastructure safety defects to be repaired linked to the appropriate timescales to make safe the Highway for users.

2. REASONS FOR RECOMMENDATIONS

- 2.1 Barnet's highway network is our largest, most valuable and most visible community asset and is probably the most used of all our services, by nearly all residents daily. It is vital to the economic, social and environmental well-being of our community.
- 2.2 The Highways Act 1980 ("**HA 1980**") sets out the main duties of highway authorities in England and Wales. Highway maintenance policy is set within a legal framework. Section 41 of the HA 1980 imposes a duty to maintain highways which are maintainable at public expense. The HA 1980 sits within a much broader legislative framework specifying powers, duties and standards for highway maintenance.
- 2.3 The Council has a duty to ensure that the statutory functions and responsibilities in relation to those highways for which the local authority is responsible are discharged. The Council also has a duty to ensure a safe passage for the highway user through the effective implementation of the legislation available to it, principally the HA 1980 and, in particular, Section 41 of the HA 1980 (noted above).

- 2.4 The Highway network is constantly aging and subject to deterioration and damage. Deterioration results in potholes in carriageways and potholes and trips in footways which cause safety concerns for users. Potholes and trips will range in severity and the particular risk they pose due to their location. All Highway Authorities need to make available a budget to make repairs.
- 2.5 The current intervention levels are 25mm for footways and 40mm for carriageways. Examples of intervention levels and the type of defects recorded but not repaired are in Appendix 1.
- 2.6 An effective regime of inspection, assessment and recording is the most crucial component of highway maintenance. The characteristics of the regime, including frequency of inspection, items to be recorded and nature of response, should be defined following an assessment of the relative risks associated with potential circumstances of network condition. These are set in the context of the authority's overall policy and maintenance strategy. Highway Inspectors will measure and record the size of potholes and/or trips and based on the measurement and position on the network assign a risk-based repair response time category ranging from a very urgent 'make safe' emergency through various timed responses. The present policy is based on a 25mm intervention threshold in footways and 40mm in carriageway. In footways situations where the paving slab 'trip' or tarmac pothole is less than 25mm deep no repair action will be taken and the location will be monitored during subsequent scheduled inspections. Carriageway potholes and other defects less than 40mm will not meet the safety defect intervention criteria and will not be actioned for repair but will be monitored by scheduled inspections. Appendix 1 contains an extracted table 6.5 from the HISIM covering safety defect guidance for a variety of assets and situations.
- 2.7 This inspection, assessment and recording regime provides the basic information for addressing the core objectives of highway maintenance namely safety, serviceability and sustainability.
- 2.8 All Authorities are therefore strongly advised to undertake safety inspections in accordance with the principles of the current guidance document (Well Managed Highways Infrastructure: A Code of Practice 2016) so that, where necessary, they are able to support a defence under Section 58 of the Highways Act 1980. This requires that a court shall have regard to:-
- 'whether the highway authority knew or could reasonably be expected to know, that the condition of the part of the highway to which the action relates was likely to cause danger to users of the highway'.*
- 2.9 Section 58 also states that the court shall, in particular, have regard for:
- The character of the highway and the traffic which was reasonably to be expected to use it.

- The standard of maintenance appropriate for a highway of that character and use by such traffic.
- That state of repair in which a reasonable person would have expected to find the highway.
- Whether the Authority knew or could reasonably have been expected to know that the condition of the highway was likely to cause danger to users
- Whether warning notices were displayed when immediate repair could not reasonably be expected

2.10 The Section 58 standards adopted for safety defect intervention criteria need to achieve a reasonable approach and be aligned with general standards used by similar authorities and take due regard for budget affordability to meet the standards. It is difficult to benchmark precisely between authorities. The LBB current annual expenditure of circa £1.4m on reactive maintenance combined with £6.7m network recovery capital planned maintenance compared to the latest Annual Local Authority Road Maintenance (ALARM) survey indicates a close proximity to average London budgets (£8.5m).

2.11 This recommendation supports our robust inspection regime. It facilitates a good service for road users and provides the system to collect evidence to show that the highway authority has acted reasonably. The Council categorises the importance of this categorisation and documents all roads and footways for inspection together with the frequency of inspection and the intervention criteria for repairing defects.

2.12 The LBB Highway Infrastructure Safety Inspection Manual (HISIM) helps to ensure that LBB statutory Highway duties are met and that a robust safety inspection system is fully documented and operationally performance managed. The HISIM conforms with the latest legislative framework and Code of Practice guidance regarding highway infrastructure maintenance inspections. It covers the core elements of asset classification, network classification/hierarchy, process for inspections, decision making and record keeping, resource needs, performance management, training health and safety and training requirements, which will be covered as relevant in each section.

2.13 The LBB Operational Network Hierarchy (ONH) is an integral part of the safety inspection system and the HISIM. The ONH maintains a risk category for all parts of the network from which scheduled safety inspections are planned and undertaken to appropriate frequencies. ONH is regularly reviewed by officers to ensure compliance with national guidelines and updated accordingly to maintain a risk-based approach to highway inspections.

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 An effective safety inspection system is a mandatory and necessary requirement to comply with Section 41 of the Highways Act and to provide LBB

as Highway Authority with a legal defence to personal injury and damage claims under Section 58 of the Highways Act. No alternatives have been identified.

4. POST DECISION IMPLEMENTATION

- 4.1 Once the Committee approves the recommendations, the authority's managing agents (Re) will commence review of the resources required to implement the new inspection regime and mobilise for delivery from 1 April 2022. Barnet's highways management system (Confirm) will also be reconfigured to take into account the revised requirements.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

- 5.1.1 The Highway network is the Council's most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. It is a key element in the LBB Strategic Asset Management Plan. The Highways provide access for business and communities, as well as contribute to the area's local character and the resident's quality of life. Highways really do matter to people and often public opinion surveys continually highlight dissatisfaction with the condition of local roads and the way they are managed. Public pressure can often result in the need for reactive and emergency repairs such as potholes, for example, to ensure the infrastructure is safe for users.

- 5.1.2 The Council's Corporate Plan – The Barnet Plan 2021-25 contains the strategic priority "Clean, Safe and Well Run". There is a commitment to invest in planned maintenance through the Network Recovery Programme to ensure roads and pavements can be used for safe, reliable travel in the long term. The Highway Infrastructure Safety Inspection Manual (HISIM) ensures that in parallel to that programme that necessary reactive and emergency safety defects are identified and remedied applying risk management criteria and coordinating with the planned maintenance carriageway and footway Network Recovery Programme.

- 5.1.3 The Highway Infrastructure Safety Inspection Manual does also contribute to the Council's Health and Wellbeing Strategy by making Barnet a safe and great place to live and enable the residents to keep well and independent.

5.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

- 5.2.1 The proposed revised maintenance regime will ensure the effective financial management of the highways network through the implementation of a clear policy framework, optimising resources deployed.
- 5.2.2 No additional revenue budget will be required to implement the new inspection policy.

5.2.3 There are no additional staffing ICT or property implications. Existing organisational and system arrangements will continue

5.3 Social Value

5.3.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This report does not relate to procurement of services contracts.

5.4 Legal and Constitutional References

5.4.1 The Council's Constitution Article 7 – Committees, Forums, Working Groups and Partnerships (Responsibility for Functions, 7.5) gives the Environment Committee responsibility for all borough-wide or cross-constituency matters related to the street scene.

5.4.2 Highway Maintenance is a statutory duty under the Highways and Traffic Management Acts.

5.5 Risk Management

5.5.1 Effective management of risk is an integral part of asset management and the Council's Risk Management Framework has established strategic and departmental risk registers.

5.5.2 The Code of Practice 'Well-managed highway infrastructure' (2016) advocates the adoption of a risk-based approach to the management of highway infrastructure assets. The LBB Highway Infrastructure Safety Inspection Manual (HISIM) 2022 (Appendix 2) and the accompanying LBB Operational Network Hierarchy (ONH) V6 December 2022 (Appendix 3) have been developed in accordance with this.

5.6 Equalities and Diversity

5.6.1 Good roads and pavements have benefits to all sectors of the community in removing barriers and assisting quick, efficient and safe movement to schools, work and leisure. This is particularly important for older people, people caring for children and pushing buggies, those with mobility difficulties and sight impairments. The state of roads and pavements are amongst the top resident concerns and the Council is listening and responding to those concerns by the proposed planned highways maintenance programme.

5.6.2 The physical appearance and the condition of the roads and pavements have a significant impact on people's quality of life. A poor-quality street environment will give a negative impression of an area, impact on people's perceptions and attitudes as well as increasing feelings of insecurity. The Council's policy is

focused on improving the overall street scene across the borough to a higher level and is consistent with creating an outcome where all communities are thriving and harmonious places where people are happy to live.

5.6.3 There are on-going assessments carried out on the conditions of the roads and pavements in the borough, which incorporates roads on which there were requests by letter, email, and phone-calls from users, Members and issues raised at meetings such as Area Forums. The improvements and repairs aim to ensure that all users have equal and safe access across the borough regardless of the method of travel. Surface defects considered dangerous are remedied to benefit general health and safety issues for all.

5.6.4 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- a) Eliminate discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010.
- 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.

The broad purpose of this duty is to integrate considerations of equality into day to day business and keep them under review in decision making, the design policies and the delivery of services. There is an on-going process of regularisation and de-cluttering of street furniture and an updating of highway features to meet the latest statutory and technical expectations.

5.7 Corporate Parenting

5.7.1 This section of the report does not apply to this report.

5.8 Consultation and Engagement

5.8.1 No public consultation was undertaken as this is a statutory duty and the proposed changes do not have a significant impact on public expectations.

5.8.2 Council's Organisational Resilience, Assurance Group has been engaged in reviewing of the highway inspection manual and the risk assessment process.

5.9 Environmental Impact

5.9.1 There are no direct environmental implications from this recommendation to approve the 2022 HISIM.

5.10 Insight

5.10.1 This section of the report does not apply to this report.

6. BACKGROUND PAPERS

6.2 LBB Highway Inspection Manual (2014)

6.3 LBB Strategic Asset Management Plan- September 2014. Highways (para 5.1, p20).

6.4 LBB Highways Asset Management Plan – November 2012

Appendix 1:

A. Types of defects meeting the intervention levels (Extract from HISIM).

Table 6.5		
Item	Defect	Investigatory Level
carriageway	pothole/spalling	40mm depth
	crowning	50mm (area as NRSWA Code of Practice)
	depression	50mm (area 2 sq.m)
	rutting gap/crack	40mm
	sunken ironwork	40mm depth (20mm wide) 25mm level difference
pedestrian crossing	trip/pothole	25mm depth
footway	trip/pothole	25mm depth
	rocking slab/block	25mm vertical movement
	open joint	25mm width × 200mm length (min depth 20mm)
	tree root damage/tree pits	25mm trip
	sunken ironwork defective coal plates/basement lights etc	25mm level difference 25mm trip
surfacing	missing/defective skid resistant carriageway	If present
	“bubbled” mastic asphalt footway	25mm trip
kerbing	dislodged	50mm horizontally
	loose/rocking	25mm vertically
	missing	yes/no
ironwork	Broken/cracked cover likely to cause a hazard	If present
	worn/polished cover likely to cause a hazard	If present
	missing cover	If present
	leaking cover likely to cause a hazard	If present
	level difference within framework	15mm

Table 6.5		
Item	Defect	Investigatory Level
drainage	missing gully blocked gully likely to cause a hazard broken/cracked gully grating likely to cause a hazard standing water in footway 1 hr after cessation of rainfall standing water in carriageway 1 hr after cessation of rainfall	If present If present If present full width of footway 1m width from kerb
private forecourt	hazardous defect	If present
private attributes	hazardous defect	If present
grass verge	Rutting	75mm depth
road markings	faded/worn highway or parking markings	30% loss of effective marking. Overlay height of 6mm.
signs/ bollards/ lights/ signals	damaged/misaligned item likely to cause a hazard missing item likely to cause a hazard defective item likely to cause a hazard obscured/dirty/faded item likely to cause a hazard exposed wiring missing door to lamp column signal lamp failure	If present If present If present If present If present If present If present
safety fencing and barriers	item damaged or misaligned likely to cause a hazard	If present
trees and vegetation	overhanging carriageway overhanging footway obstructing visibility low tree base in footway	exceptional circumstances 2.1m height clearance yes/no 50mm level difference

Table 6.5		
Item	Defect	Investigatory Level
highway general	oil/diesel spillage	300mm diameter area
		If present
	presence of ice	If present
	debris likely to cause a hazard	If present
	fly tip likely to cause a hazard	If present
	obstruction likely to cause a hazard	If present
	scaffolding likely to cause a hazard	If present
	hoarding likely to cause a hazard	
	defective skip/temporary structure likely to cause a hazard	If present
	defective reinstatement likely to cause a hazard	If present
	defective open excavation likely to cause a hazard	If present
	defective/damaged utility cabinet likely to cause a hazard	If present
	defective/damaged street furniture likely to cause a hazard	If present
	defective/damaged street name plate likely to cause a hazard	If present
	damaged/unstable overhead wires	
	Exposed electrical wires	If present
		If present
		If present
other danger to the public	anything else considered hazardous or dangerous	If present

B. Network Examples for Intervention and Non Intervention Situations
Footway (Pavement)

Intervention level



Not at intervention level



Carriageway (Road)

Intervention level



Carriageway (Road)

Not at intervention level





London Borough of Barnet (LBB)
Improving Barnet's Roads

Highway Infrastructure Safety Inspection Manual (HISIM)

DRAFT

JOB NUMBER	DOCUMENT REF	AUTHOR
60672	60672_A	Antoine Aubert

REVISION	PURPOSE	ORIGINATED	CHECKED	APPROVED	DATE
N/A	First Issue	AA	AA/MC/PB	PB	DEC 12
A	Minor Amendments	AA	AA/MC/PB	PB	JAN 13
B	General Updates	RM	AG	IE	AUG 21
C	Major Review	M. R-W	R. MARCHAND	A. GUDGE	DEC 21

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Appendix G: Safety Defect Risk Categorisation Matrix Guidance

Appendix H: LBB Asset Inventories

Appendix I: Document Review Table

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1. Foreword

- > The highway network is one of the Council's most valuable assets. Through regeneration and infrastructure improvement it is continuing to expand and therefore increasing in value. Keeping the network in good condition is a huge challenge given rising travel demand and traffic flow. The purpose of highway maintenance is to maintain the highway network for the safe, convenient and efficient movement of people and goods. The LBB Highway Infrastructure Asset Management Plan sets out the overarching asset management approach.
- > The Department for Transport (DfT) "*Well-Managed Highways Infrastructure*" Code of Practice (CoP) October 2016 provides guidance for highway authorities on how to discharge their responsibilities and deliver an efficient, effective and economic highway maintenance service. The procedures adopted by the Council (London Borough of Barnet -LBB) in preparing this Highway Infrastructure Safety Inspection Manual are guided by the latest 2016 revision of the CoP, with practical amendments made to reflect local circumstances. Relevant extracts from the CoP have been placed into this document as appropriate.
- > The purpose of this Manual (HISIM) is to provide a clear and consistent quality system guidance/ standards and support for Highway Infrastructure Maintenance inspections to ensure a consistent approach and standards across the borough. It provides important guidance to LBB Highway Inspectors, Operational Managers, and other LBB Highways staff carrying out maintenance related inspections on the highway infrastructure network.
- > The adoption of the robust and risk based safety defect inspection, recording, and rectification regime set out in this Highway Infrastructure Safety Inspection Manual (HISIM) will minimise the risk of claims for damages against LBB which are costly and a significant drain on limited resources. The LBB current (2021) claim repudiation rate is circa 75%.
- > This HISIM will also help to inform Councillors, the Public and other LBB stakeholders of the approach to the maintenance of the highway network and response to identified defects.
- > This HISIM is primarily focussed on the regime for highway infrastructure safety inspections although it does cover the basic arrangements for related service inspections, and asset condition surveys linking to planned maintenance.

2. Introduction

- > The establishment of an effective regime of inspection, assessment and recording is the most crucial component of highway maintenance. The characteristics of the regime, including frequency of inspection, items to be recorded and nature of response, should be defined following an assessment of the relative risks associated with potential circumstances of network condition. These are set in the context of the authority's overall policy and maintenance strategy.
- > This inspection, assessment and recording regime provides the basic information for addressing the core objectives of highway maintenance namely; safety, serviceability and sustainability.
- > Inspections and surveys will be considered in the following categories:
 - **Safety Inspections:** These are designed to identify all safety defects likely to create danger or serious inconvenience to users of the network or the wider community. The risks of those safety defects are assessed and remedial actions taken based on the danger they pose to road users.
 - **License Inspections/Enforcement:** These inspections will determine whether a developer or construction project has the relevant licenses in place as outlined in the Highways Act 1980. Inspections will generally consist of an initial condition survey (if an application has been made), an inspection during construction, and an inspection upon completion or reinstatement.
- > This HISIM conforms with the latest legislative framework and Code of Practice guidance regarding highway infrastructure maintenance inspections. It covers the core elements of asset classification, network classification/hierarchy, process for inspections, decision making and record keeping, resource needs, performance management, training health and safety and training requirements will be covered as relevant in each section.

3. Legislative, National, and Local Frameworks

3.1 Highway Act 1980

- > There is a legal requirement under Section 36 to maintain a list of adopted roads (roads maintainable at public expense).
- > Under Section 41 the Council has a statutory duty to maintain all adopted roads. Neglecting this duty could lead to claims against the Council for personal injuries/damages resulting from failure to maintain the highway.
- > All Authorities are therefore strongly advised to undertake safety inspections in accordance with the principles of the current guidance document (Well Managed Highways Infrastructure 2016) so that, where necessary, they are able to support a defence under Section 58 of the Highways Act 1980. This requires that a court shall have regard to

'whether the highway authority knew or could reasonably be expected to know, that the condition of the part of the highway to which the action relates was likely to cause danger to users of the highway'.

- > Section 58 also states that the court shall in particular have regard for:
 - The character of the highway and the traffic which was reasonably to be expected to use it.
 - The standard of maintenance appropriate for a highway of that character and use by such traffic.
 - That state of repair in which a reasonable person would have expected to find the highway.
 - Whether the Authority knew or could reasonably have been expected to know that the condition of the highway was likely to cause danger to users
 - Whether warning notices were displayed when immediate repair could not reasonably be expected
- > A robust inspection system supports regime facilitates an excellent service for road users and provides evidence to show that the highway authority has acted reasonably. It is therefore vital that the Council categorises and documents all roads and footpaths for inspection together with the frequency of inspection and the intervention criteria for repairing defects.
- > As well as the authorities obligations under section 58 of the Highways Act 1980, it will ensure that all other requirements and obligations in regard to maintenance, licensing and enforcement are realised.

3.2 The Traffic Management Act 2004

- > The Traffic Management Act 2004 (TMA) placed a statutory requirement on highway authorities called the Network Management Duty (NMD). This duty made highway authorities responsible for three main areas.
 - Appoint a Traffic Manager
 - To secure the expeditious movement of traffic on the authority's road network.
 - To facilitate the expeditious movement of traffic on road networks for which another authority is the traffic authority.
- > All local authorities were encouraged to use all powers available to carry out their Network Management Duty. Failure to deliver an authority's NMD could result in central government issuing an intervention order.
- > This order would set out the requirements for improvements within a set time. Further failure could result in central government appointing a Traffic Director to carry out the functions of the Council's Traffic Manager. The associated cost for any required information or appointment would be met by the failing authority.
- > The Act 2004 (TMA) also introduced a permit scheme in which highway promoters including the Council would need to obtain a permit to work. The permit scheme replaces the noticing regime under NRSWA with the main difference being that a highway promoter would have to ask when they could work in a street as opposed to just informing them when they were going to work and the highway authority being able to apply conditions to the permit.
- > Barnet applied to the Department for Transport in October 2009 to operate a London Permit Scheme (LoPS) and was granted permission via a statutory instrument, which came into force on 11th January 2010.
- > The authority will ensure that where all highways maintenance activities are taking place, that parity is shown to other promoters in line with the current LBB Utilities Charter.

3.3 The New Roads & Street Works Act 1991

- > The New Roads and Street Work Act 1991 (NRSWA) sets out the legal framework for work promoters and aims to balance everyone's needs. It focuses around three main criteria.
 - Safety
 - Co-ordination
 - Protecting the integrity of the highway
- > The 1991 Act introduced strict codes of practice for these three key areas and gave highway authorities additional powers and responsibilities, which were to be carried out as a statutory requirement.
- > Utility Companies have a legal right to place their apparatus within the public highway but they have a statutory duty under the noticing regime to notify the Highway Authority of their intention to work. They must work safely and restore the highway to an acceptable level. Local builders have no statutory right to work on the highway and those who want to place/retain and thereafter inspect/maintain apparatus in the highway must obtain a street works licence.
 - The two statutory duties under NRSWA:
 - Co-ordinate all Street Works and Highway Activities on the highway.
 - Inspect utility companies' works and reinstatements.
- > Although inspections relating to street works being carried out on the public highway are the direct responsibility of the street works inspectors there is an overlap between defects identified in relation to these works and those identified by highway inspectors as part of safety or service inspections. Inspectors should take a joined up approach and ensure all activities are inspected, reported and actioned in accordance with current legislation.

3.4 "Well-Managed Highway Infrastructure" Code of Practice October 2016

- > The Dft "Well-Managed Highway Infrastructure"; A Code of Practice (CoP) 2016 is the primary guidance available to local highway authorities to assist them in discharging their duties in an effective manner. The following principles and context are stated in the CoP;
 - This document is the first edition of 'Well-managed Highway Infrastructure'. It replaced the previous separate Well-maintained Highways, Management of Highway Structures and Well-lit Highways.
 - The Code is intended to apply throughout the United Kingdom. Production has been overseen by the UK Roads Liaison Group (UKRLG) and its Roads, Bridges and Lighting Boards. It is recognised that there are differences in approach to some matters in England, Scotland, Wales and Northern Ireland, which are not always detailed in the Code, but general principles are set out.
 - The Code is designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment. It also includes guidance on some additional topics.
 - The Code is produced as a single document to emphasise the integrated approach to highway network infrastructure assets.
 - Delivery of a safe and well maintained highway network relies on good evidence and sound engineering judgement. The intention of this Code is that Authorities will develop their own levels of service and the Code therefore provides guidance for authorities to consider when developing their approach in accordance with local needs, priorities and affordability.
 - Changing from reliance on specific guidance and recommendations in the previous Codes to a risk-based approach determined by each Highway Authority will involve appropriate analysis, development and gaining of approval through authorities' executive processes. Some authorities may be able to implement a full risk-based approach immediately. Others may require more time and may choose to continue with existing practices for an interim period, in which case the previous Codes will remain valid for them until the earlier of when they have implemented their approach or a period of two years from the date of publication of this Code.
 - In the interest of route consistency for highway users, all authorities, including strategic local, combined and those in alliances, are encouraged to collaborate in determining levels of service, especially across boundaries with neighbours responsible for strategic and local highway networks. Boundaries are not usually apparent to users and authorities should be aware of the possibility of distinct changes to levels of service through a risk-based local approach, both across authority boundaries and between roads with different character within an authority.
 - All Highway Authorities should consider adoption of new and emerging technologies as part of their highway service. This should include consideration of new ideas, methods of working and innovation in order to drive greater efficiency.
 - References to third party documents and web sites are included throughout to provide further information and support on various topics, but are not to be seen as part of the Code of Practice. References are to the version current at the time of this Code's publication, unless otherwise indicated.

- > The code is essential for the delivery of a well managed highway infrastructure network, it should be understood and utilised by all members of the Traffic & Compliance team.
- > A summary of the CoP key recommendations is included at Appendix F.

3.5 Highway Infrastructure Asset Management Plan (HIAMP)

The LBB HIAMP is the overarching highway infrastructure maintenance policy document. Implementation of and compliance with the HIAMP is through a suite of operational manuals which include this Highway Infrastructure Safety Inspection Manual.

3.6 Operational Network Hierarchy (ONH)

- > Well-Managed Highway Infrastructure Code of Practice October 2016 includes the key Recommendation 12 regards a Network Hierarchy. A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.
- > LBB has an Operational Network Hierarchy (ONH) . It is a standalone document but an integral dependency for the HISIM. The purpose of the ONH is to explain the complete process and methodology used by the London Borough of Barnet (LBB) to produce their Operational Network Hierarchy (ONH) using a factor based scoring system. The ONH applies to the carriageway, footway and designated cycleway networks where such exist, but excludes Public Rights of Way.
- > The ONH is a fully controlled document subject to periodic overall review but also dynamic localised temporary network changes driven by changing risks. It is a stand alone document accessible through a link at Appendix C
- > It is necessary to have a hierarchy because different parts of the carriageway and footway network have different characteristics and risks to users (drivers/vehicles, pedestrians and cyclists). All Highway Authorities must comply with the Highways Act 1980 and in particular it is essential to be able to apply the Section 58 statutory defence to defend third party claim liabilities by demonstrating reasonable systems and maintenance to ensure road user safety. A key part of such systems is a clear basis for applying different inspection and maintenance expenditure plans for different parts of the highway network.
- > The ONH is essential for the delivery of a well managed highway network, it should be understood and utilised by the Traffic & Compliance team.

4. Record Keeping (Maintenance Management Systems)

4.1 Confirm

- > The Council uses highway maintenance management software called Confirm to collect, store and access all records about its highway assets.
- > The database can be interrogated using pre-set or specific reports which combine data according to the users' specification to provide quick and up to date information on the assets and inspection records.
- > The handheld computers used by Highway Inspectors are updated daily and give them access to recent information from the database to allow them to make more informed decisions thus ultimately improving the service delivered to Barnet's residents. Street works co-ordinators also have the ability to access the database remotely although at present they are updating it in the office only.
- > The LBB highway network is electronically defined into the system together with a thorough asset inventory to provide a base to record any defects, repairs, improvement, or amendment to the borough's highway assets.
- > Information about work to be carried out on the network (safety defect works instruction) is sent to the Council's contractors electronically via the Confirm application. The contractor is required to inform the Council of completed works using the same system. This allows all information exchange to be centrally recorded and monitored to ensure compliance with the contractual timescales for defect correction.
- > All information recorded, even if not primarily intended for network safety purposes, may have consequential implications for safety and may therefore be relevant to legal proceedings.
- > Under the freedom of information Act 2000, all publicly held records are potentially available for public inspection and reference.

5. Asset Inventory and Classification

5.1 Asset Inventory

- > Highway assets such as roads, street furniture, and underground drains are the council most valuable assets and are essential to ensure the effective movement of goods and people in the borough.
- > A thorough inventory of these assets is required in order to ensure that they provide users with the required level of service and allow the Council to target available funds in line with its current strategy.
- > A number of attributes are recorded for each asset such as location, nature, general condition, dimensions, and maintenance history. These data are then used to enable officers to take informed decision on the most appropriate way to maintain them throughout their serviceable life.
- > As with any database the quality of its information over time depends on it being regularly updated. The management of works undertaken as a result of planned, reactive and cyclical maintenance through the authority's maintenance programme will ensure that the information is kept up to date.
- > The current LBB Asset inventory covers records for: see Appendix H.

5.2 Road Hierarchy - ONH

- > A network hierarchy is the foundation of a coherent, consistent and auditable maintenance strategy. It is also crucial to asset management in establishing levels of service and to the new statutory network management role for developing co-ordination and regulating occupation.
- > Tables 1 and 2 below (referenced in this document as tables 5.1 and 5.2) are CoP extracts that are used by the LBB ONH which provide definitions for carriageway and footways based on their location and usage.

Table 5.1: Carriageway Hierarchy

TABLE 1 - CARRIAGEWAY HIERARCHY			
Category	Hierarchy Description	Type of Road General description	Description
1	Motorway	Limited access motorway regulations apply	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
2	Strategic Route	Trunk and some Principal 'A' roads between Primary Destinations	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited

TABLE 1 - CARRIAGEWAY HIERARCHY (cont)			
Category	Hierarchy Description	Type of Road General description	Description
3a	Main Distributor	Major Urban Network and Inter-Primary Links. Short - medium distance traffic	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.
3b	Secondary Distributor	Classified Road (B and C class) and unclassified urban bus routes carrying local traffic with frontage access and frequent junctions	In rural areas these roads link the larger villages and HGV generators to the Strategic and Main Distributor Network. In built up areas these roads have 30mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra crossings. On-street parking is generally restricted except for safety reasons
4a	Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions	In rural areas these roads link the smaller villages to the distributor roads. They are of varying width and not always capable of carrying two way traffic. In urban areas they are residential or industrial interconnecting roads with 30mph speed limits random pedestrian movements and uncontrolled parking.
4b	Local Access Road	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often only single lane width and unsuitable for HGV's. In urban areas they are often residential loop roads or cul-de-sacs.

Table 5.2: Footway Hierarchy

TABLE 2 - FOOTWAY HIERARCHY		
Category	Hierarchy Description	Description
1 (a)	Prestige Walking Zones	Very busy areas of towns and cities with high public space and streetscene contribution.
1	Primary Walking Routes	Busy urban shopping and business areas and main pedestrian routes
2	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc.
3	Link Footways	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footways	Footways associated with low usage, short estates roads to the main routes and cul-de-sacs.

- > In addition to the footway definitions given in table 5.2 the ONH requires that the presence of schools, hospitals, health centres and areas with a particular concentration of elderly or disabled people be taken into consideration when classifying footway sections. The LBB ONH (Appendix J) has analysed and incorporated relevant risk information in respect of pedestrian activity generation.
- > The overall network length in Barnet is 926km, of which 759km (82%) is managed by the Council. The remainder of the network is either private, managed by Transport for London (A1, A41, A406), or by the Highway Agency (A1(M), M1).
- > The highest carriageway category under LBB management is 3a "Main Distributor Road" with road such as the A5, A598, A411, A1000, A1003, locally referred as main corridors. These account for 8% of the LBB network.
- > The amount of category 3b "secondary distributors" under LBB management represents 20% of LBB carriageway.
- > The vast majority of carriageways managed by LBB are either category 4a "link road" or category 4b "local access road" which represent 72% of the LBB network.
- > The highest category of footway in Barnet is category 1 "Primary Walking Route". This applies to LBB's 19 local town centres. Category 1a "Prestige footway" does not apply. This category referring to major cities such as Oxford Street central London. The location of these town centres together with the footway classification can also be found in Appendix A.
- > LBB manages mostly category 3 "link" and category 4 "local access" footways representing a combined 68% of the LBB boroughs footways.
- > Highways Infrastructure assets are managed through the Confirm database.
- > The Operational Network Hierarchy (ONH) will be reviewed at the start of every financial year by the Street Works & Network Asset Manager to ensure that it provides a true reflection of the network conditions. Information from the claims department will be used as part of this assessment to ensure that the Council is optimising its chances of successfully defending claims for damages. Section 6.2 refers regards inspection frequency and the dynamic review of information.

6. Safety Inspections

6.1 Overview

- > The Council has a duty to inspect and maintain all of the LBB adopted roads. The Section 36 (Highway Act) list of adopted highways roads is maintained, updated and published using the Street Gazetteer.
- > All adopted roads are included in the LBB ONH with update protocol linked to the Street Gazetteer.
- > Safety Inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community.
- > Investigation levels are set for each defect likely to be encountered. Defects meeting these investigation criteria are recorded, risk assessed, categorised, and remedied (if appropriate) according to agreed contractual timescales.
- > Safety inspections are either carried out in a cyclic (according to the LBB inspection regime) or reactive manner (responding to customer enquiry service requests). See Appendix B for examples of the scheduled inspection system and links.
- > A robust process for the identification and correction of safety defects on the public highway allow the council to optimise highway safety for users and minimise the risks of personal injury and/or damage claims against LBB.

6.2 Inspection Frequency (Cyclic)

- > Table 6.1 below shows the inspection frequencies set out for guidance in Well-Managed Highway Infrastructure Code of Practice 2016 for the various asset classes applicable to the LBB network.

Table 6.1: Cyclic Safety Inspection Frequencies by Asset Class (source: CoP)

Carriageway Safety Inspection Frequency (ONH)		
Category		Frequency
3a)	Main Distributor	Monthly
3b)	Secondary Distributor	Monthly
4a)	Link Road	3 monthly
4b)	Local Access	Yearly

Barnet Footway Safety Inspection Frequency (ONH)		
Category		Frequency
1	Primary Walking Route	Monthly
2	Secondary Walking Route	3 monthly
3	Link Footway	6 monthly
4	Local Access Footway	Yearly

- > The COP categories 1 and 2 for highway and 1a for footway have been omitted from the table as the Council is not responsible for any assets fitting these descriptions.
- > The LBB cyclic safety inspection system is informed by the ONH and set out in a detailed electronic annual programme of weekly inspection (beats) for each inspection area. The inspection programme is uploaded and managed via the inspection mobile devices. Examples of the detailed inspection routes are shown at Appendix B.
- > To account for lost staff time and service efficiency there is an agreed tolerance of + / - one week for monthly and + / - two weeks for all other inspections.
- > Safety inspection performance is formally assessed monthly using KPI 1.1
- > The inspection approach is to inspect both carriageway and adjacent footway.
- > Inspecting adjacent sections of carriageways and footways at the same time while aligning the inspection frequencies to that of the highest adjacent asset would put too much pressure on the Council's resources and was not therefore considered to be a viable option.
- > In order to satisfy the inspection requirements set out in the ONH and current CoP, Barnet therefore undertakes its inspection as follow:
 - The 19 town centres identified in Appendix A are inspected on foot once a month. Both carriageway and footway are done at the same time for these inspections.
 - Outside town centres assets are inspected on foot.
 - Walked inspections systematically look at both carriageway and footway at the same time and are carried out by each inspector separately.
 - Secondary distributor roads Cat 3b are adjacent to secondary walking routes Cat 2. As the inspection frequencies of the footway is one third that of the carriageway, every three inspections are done on foot while and the others are driven.
 - A similar approach is taken for link footways and link roads where every other inspections is done on foot.
 - Local access roads and footway have the same frequency and are therefore inspected together on foot once a year.
 - Cycle ways are either walked or cycled according to the relevant frequency.
 - Where there are no footways or safe walking routes, a road may be inspected by car. When inspected by car, two inspectors will be present for safety reasons.
- > Close working relation between the three Senior Highways Inspectors and the insurance team ensures that the classification and associated inspection frequency for assets subject to high claim numbers is adequate to reduce the risk of personal injury accidents and the risk of further claims applying a dynamic review informed by data.

Extract LBB ONH V6 December 2021

5. The dynamic risk review process runs a systems report to identify actual personal injury insurance claims and reactive footway defects for a rolling 12-month period. The process is undertaken in May and November each year and is documented in the process flow chart at Appendix M Database Management Plan. The process uses an initial threshold of two or more insurance claims and/or six or more reactive safety defects per km to inform a specific review by the local inspector of the reasons for the incidents. If corrective action cannot be undertaken at that point in time the process will result in a temporary adjustment to the sections' score which may in turn lead to a temporary increase in its inspection frequency to ensure a follow up inspection within 6 months. This is particularly relevant for annually inspected sections which, if affected, will be inspected bi-annually until further notice.

- > CONFIRM (Maintenance Management Software System) is used to log inspections records and predict the next dates for future inspection. Inspection records are automatically loaded into the database at the end or the start of each working day when the inspector reports back to the office.
- > Although it is possible to produce rigid inspection schedules for inspectors using Confirm, the borough prefers to maintain some flexibility and leave the Inspectors to decide on the most appropriate route to be inspected each day. This allows them to combine the visit carried out for reactive safety inspections with their overall cyclic rota.
- > The three Senior Network Asset Inspectors are responsible for monitoring progress and ensure that the relevant frequencies are maintained over time.

6.3 Inspection Regime (Reactive/Customer Requests)

- > Complaints, reports and requests for maintenance (Service Requests - SRs) from members of the public are received via the The Hub, which log them onto the Confirm database and allocate them a unique reference number.
*The Hub - LBB Customer Care Team and Online Reporting system
- > Requests relating to carriageway potholes are sent to the relevant Highway Inspector.
- > The corporate customer care policy guidance currently requires a response to requests to be sent out within 10 working days.
- > When practical, reactive 'SR' inspections are combined with the cyclic scheduled safety inspections so that the opportunity is taken for that section or area of the network to be reviewed at the same time.
- > ME Emergency/Urgent requests for situations that could be potentially hazardous to highway users will be telephoned directly through to the appropriate Highway Inspector.
- > Intervention action follow the process and guidelines at 6.5.
- > Responses to Customer Service Requests are generated automatically using Confirm. The Senior Highway Inspector oversees the correspondence process and ensures that queries are answered within the corporate deadlines.

6.4 Resource Requirement (Cyclic and reactive)

- > The Council is responsible for maintaining 759km of public highway divided over 21 wards. Inspections are handled by six highways inspectors working in teams of two each covering specified areas. The highway inspectors are supervised by three senior highway inspectors. Refer Appendix D.
- > Table 6.2 below and Appendix A shows the wards allocated to each team of inspectors.

Table 6.2: Ward allocation for cyclic inspection teams

Ward Responsibility for Cyclic Inspections		
Team 1	Team 2	Team 3
High Barnet	Woodhouse	West Hendon
East Barnet	West Finchley	Hendon
Underhill	Finchley Church End	Colindale
Totteridge	East Finchley	Burnt Oak
Oakleigh	Garden Suburb	Mill Hill
Brunswick Park	Childs Hill	Hale
Coppetts	Golders Green	Edgware

- > In order to maximise local knowledge, continuity and assist in monitoring the quality of repairs each team will remain responsible for the same area over time.
- > The Senior Inspection Officer has direct responsibility for the inspection and defect correction process. This includes managing the Highway Inspectors, controlling the budget, and contractors performance. Administrative support is provided to the Senior Inspector to assist him as required.
- > The Senior Inspection Officer co-ordinates leave request so that at least one inspector is present to cover each area on any given day. He also makes sure that each team covers its area on time and arranges for assistance to be provided between team as required to meet the agreed timescales.
- > Selected inspectors will be trained to undertake more detailed post accident investigations and to provide such evidence in court. These inspections will be instigated by the Insurance Claim Manager with strict timescales for completion.

6.5 Safety Inspection Investigatory Levels (Cyclic and Reactive)

- > During the course of their inspections highway inspectors shall observe defects from the following list of items of highway inventory:
 - carriageways
 - pedestrian crossings
 - footways
 - surfacing
 - kerbing
 - ironwork
 - drainage
 - private forecourts
 - grass verges
 - road markings
 - signs/bollards/lights/signals
 - safety fencing and barriers
 - trees and vegetation
 - highway general.
 - private attributes e.g. coal plates, building access hatches, pavement lights. smoke vents etc.
- > Any items presenting a defect equal to or exceeding the investigatory levels set out in Table 6.5 (next page) shall be recorded by the inspector and assessed in accordance with the risk based criteria set out in this Safety Inspection Manual. Defects not meeting the intervention criteria will not be recorded.
- > Where trees are on the highway (footway or footpath), and a tree pit is present, it is considered that where a right of way with a tree pit in place has a width of 1.5 metres or more (not including the tree pit) that is deemed sufficient in terms of passing pedestrian traffic and as such the tree pit does not form part of the "maintainable highway". For this reason, where there is sufficient width on the highway at 1.5 metres to allow passing pedestrian traffic, there are no defect intervention levels in place for tree pits..
- > However, if a highway has a width of less than 1.5 metres for passing pedestrian traffic due to a tree pit, there will be an intervention level of 75mm. this intervention level will only apply to edges of the tree pit which are directly adjacent to a used section of highway e.g. if a dip of 75mm were next to a kerb and posed no risk to pedestrians it would not be considered a defect, if a dip of 75mm or more were directly adjacent to a section of footway which carries pedestrians then it would be considered a defect.

Table 6.5:

Item	Defect	Investigatory Level
Carriageway	pothole/spalling crowning depression rutting gap/crack sunken ironwork	40mm depth 50mm (area as NRSWA Code of Practice) 50mm (area 2 sq.m) 40mm 40mm depth (20mm wide) 25mm level difference
Pedestrian crossing	trip/pothole	25mm depth
Footway	trip/pothole rocking slab/block open joint tree root damage/tree pits sunken ironwork defective coal plates/basement lights etc	25mm depth 25mm vertical movement 25mm width x 200mm length min depth 20mm) 25mm trip 25mm level difference 25mm trip
Surfacing	missing/defective skid resistant carriageway "bubbled" mastic asphalt footway	If present 25mm trip
Kerbing	dislodged loose/rocking missing	50mm horizontally 25mm vertically yes/no
Ironwork	Broken/cracked cover likely to cause a hazard worn/polished cover likely to cause a hazard missing cover leaking cover likely to cause a hazard level difference within framework	If present If present If present If present 15mm
Drainage	missing gully blocked gully likely to cause a hazard broken/cracked gully grating likely to cause a hazard standing water in footway 1 hr after cessation of rainfall standing water in carriageway 1 hr after cessation of rainfall	If present If present If present full width of footway 1m width from kerb

Item	Defect	Investigatory Level
private forecourt	hazardous defect	If present
private attributes	hazardous defect	If present
Grass verge	Rutting	75mm depth
Road markings	faded/worn highway or parking markings	30% loss of effective marking. Overlay height of 6mm.
signs/bollards/ lights/signals	<p>damaged/misaligned item likely to cause a hazard</p> <p>missing item likely to cause a hazard</p> <p>defective item likely to cause a hazard</p> <p>obscured/dirty/faded item likely to cause a hazard</p> <p>exposed wiring</p> <p>missing door to lamp column</p> <p>signal lamp failure</p>	<p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p>
Safety fencing and barriers	item damaged or misaligned likely to cause a hazard	If present
Trees and vegetation	<p>overhanging carriageway</p> <p>overhanging footway</p> <p>obstructing visibility</p> <p>low tree base in footway</p>	<p>exceptional circumstances</p> <p>2.1m height clearance</p> <p>yes/no</p> <p>50mm level difference</p>
Highway general	<p>oil/diesel spillage</p> <p>presence of ice</p> <p>debris likely to cause a hazard</p> <p>fly tip likely to cause a hazard</p> <p>obstruction likely to cause a hazard</p> <p>scaffolding likely to cause a hazard</p> <p>hoarding likely to cause a hazard</p> <p>defective skip/temporary structure likely to cause a hazard</p> <p>defective reinstatement likely to cause a hazard</p>	<p>300mm diameter area - If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p> <p>If present</p>

Item	Defect	Investigatory Level
Highway general	defective open excavation likely to cause a hazard	If present
	defective/damaged utility cabinet likely to cause a hazard	If present
	defective/damaged street furniture likely to cause a hazard	If present
	defective/damaged street name plate likely to cause a hazard	If present
	damaged/unstable overhead wires Exposed electrical wires	If present If present
Other danger to the public	anything else considered hazardous or dangerous	If present

- > In regard to defects specified in the above table, particularly those covered under the "highway general" heading, many are the responsibility of individuals or organisations and not the Council. Unless urgent action is required, the Inspector's course of action shall be to pass on the relevant information to the section or department that is responsible for overseeing that particular activity.
- > Highway inspectors will make every effort to identify the person(s) responsible for the defect and draw their attention to both the defect and their responsibilities. If necessary, appropriate temporary action should be taken to protect the public such as minor temporary traffic management.
- > To manage s81 defect notices, preset contacts for the utility providers owning assets within the borough and letter templates are available to allow any logged defects identified on their assets to be reported immediately. S81 defects will be monitored from notification to repair completion by a dedicated resource.
- > Inspectors will check as part of cyclic inspections that items on the public highway for which a licence should have been issued such as of skips, building materials, or scaffoldings are appropriately recorded on the Council's database. They will be able to do so using the information displayed for any given street on their handheld computers. Any unlicensed activity should be reported to the licensing officer for check and eventual enforcement action to be taken against the relevant third party.

6.6 Safety Defects Categorisation, Type, and Response times (Cyclic and Reactive)

- > The CoP suggests that defect categorisation should be done via a risk assessment and proposes the use of a risk calculation matrix to derive a risk score which is then used to categorise the defect. A risk matrix for guidance purposes is referenced at Appendix G.

RE		CARRIAGEWAYS																				
		Excessive unevenness	Potholes The depth of a pothole is covered below. As a general rule, the diameter at the surface level, should be >75mm on cycle lanes and >150mm on carriageways				Loose Material etc	Regulatory Lines - excessive wear	Ironwork - missing, broken, tilting etc	Edge Damage	Unevenness - ruting etc	Displaced road stud, cat eyes and debris										
Network hierarchy	Risk rating	Cycle Lanes	Other Locations	Cycle Lanes	Other Locations	Initial signs of spaviness, craters with rutted loss of aggregate	Of sufficient depth to need immediate action	Small accumulations that could become a hazard/fault	White regulatory lines (at junctions) worn so as to detract from their purpose	White and yellow lines worn that still just functioning	Missing ironwork	Cycle lanes	Other Locations	Checked frame or cover, rocking or rattle noise or vibration. Degraded or tilted	Worn, slight unevenness, expected to worsen	Road edge breaking, falling away so as to be potentially hazardous	Road edge extensive cracking, some deterioration. Likely to worsen in short term	Severe unevenness due to rut, bumps, corrugations	Severe unevenness should be reported to the planned maintenance team and therefore may influence programme	Moderate unevenness	Displaced and heaving surface	Heavily / loose
Carriageway 24.6 & 24.7	High (in-line with vehicle / cycle path)	1	1	3	3		1				1	1	3			1						
Challenges A, B, C	Medium (adjacent with vehicle / cycle path)	2	2				3	4	3	4	2	4	4			4	4	4	4		1	4
	Low (other area of carriageway)	3	4	4	4		4				3											

RE		FOOTWAYS							STREET FURNITURE, VEGETATION AND STRUCTURAL INSPECTIONS							
		Edgings - excessive rut, trip etc	Ironwork - missing, broken, tilting etc	Broken or loose - Trips >25mm and/or broken >150mm	Loose/cracked covers and frames not an immediate hazard	Potholes >25mm deep	Potholes <25mm deep and/or edges of wear and tear, slight heaving, crating and loss of aggregate	Trips >25mm, open joint 20mm wide and 200mm in length >10mm deep	Bumps, depressions, surface heave, undulations etc	Loose, tilting etc	Furniture defects Prior to replacement or maintenance of any street furniture ensure justification is still warranted			Tree and vegetation defects Unless obvious cases refer to Arboriculture		
Network hierarchy	Risk rating	Trips >25mm	Missing ironwork	Broken or loose - Trips >25mm and/or broken >150mm	Loose/cracked covers and frames not an immediate hazard	Potholes >25mm deep	Potholes <25mm deep and/or edges of wear and tear, slight heaving, crating and loss of aggregate	Trips >25mm, open joint 20mm wide and 200mm in length >10mm deep	Bumps, depressions, surface heave, undulations etc	Loose, tilting etc	Rails, barriers, safety fences etc - excessive defects	Road signs and signals - excessive defects	Useful signs - safety hazard	On highway	Off highway - safety hazard	Building, walls and fence defects Unless obvious cases refer to structural engineer
Footways 24.1, 2.4.1.1	High (in-line with pedestrian / cycle path)			1		1		1		1						
	Medium (adjacent with pedestrian / cycle path)			2		2		2		2						4
	Low (other area of footway)			2		2		2		2						4
Footway 4	High (in-line with pedestrian / cycle path)			1		1		1		1						1
	Medium (adjacent with pedestrian / cycle path)			2		2		2		2						4
	Low (other area of footway)			4		4		4		4						4

Impact	Risk Factor	PROBABILITY					Response Category	Response Category	Response Category	Description
		Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)				
Negligible (1)	1	2	3	4	5	Emergency	Cat 1	Cat 1	Correct/repair or make safe within 24 hours preferred, 48 hours maximum. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out within 28 days. If there are planned maintenance/improvement works that could/would permanently resolve the defect then it may be left at a "made safe" status. Normally this time period would not exceed 12 months.	
Low (2)	2	4	6	8	10	Emergency	Cat 2	Cat 2	Correct/repair or make safe within 7 days. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out within 28 days. If there are planned maintenance/improvement works that could/would permanently resolve the defect then it may be left at a "made safe" status. Normally this time period would not exceed 12 months.	
Noticeable (3)	3	6	9	12	15	Emergency	Cat 3	Cat 3	Correct/repair or make safe within 28 days unless planned maintenance/improvement works are planned	
High (4)	4	8	12	16	20	Emergency	Cat 4	Cat 4	Normally reviewed during next inspection or resources permit, correct during next available local area works	
Extreme (5)	5	10	15	20	25	Emergency	Cat 4	Cat 4	Normally reviewed during next inspection or resources permit, correct during next available local area works	

Notes	
These are recommended minimum standards and there is an option for inspectors to increase response levels on specific defects where appropriate taking into consideration defect type, location, road/footway and usage.	All defects involving or resulting from utility company apparatus and/or works should be reported to the New Road and Street Works Act team to contact the company involved to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.
Vulnerability of cyclists must be taken into account when assessing footway and kerb defects.	For defects located on private land or resulting from private property, the owners will need to be contacted to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.
During severe weather and at times of high numbers of defects being recorded it may be necessary to delay or suspend highway safety inspections and response times may need to be extended	

- > The risk assessment is to be based on impact and probability of the risk.
- > Factors considered to categorise defects include the severity of the defect, the type of asset the defect is located on, and the location of the defect on the network. Under this system a 25mm trip hazard on a given footway would be given a different priority level depending on whether or not it is located on the pedestrian desired path. Similarly a pothole exceeding the investigatory level will be given a different priority for treatment based on its location on the carriageway.

- > LBB's Term Maintenance Contract has four categories of safety defects with their own preset correction period (see below). Category 4 is used to record a nil action at that point in time arising from a response inspection.
 - **Emergency (ME)** - completion (or at least make safe) within 2 hours;
 - **Category 1** - completion within 24 preferred, 48 hours maximum;
 - **Category 2** - completion within 7 days;
 - **Category 3** - completion within 28 days
 - **Category 4** - monitor/ no specific timescale
- > Category 1 defects should be corrected or made safe at the time of inspection, if reasonably practicable. In this context, making safe may constitute displaying warning notices, coning off or fencing off to protect the public from the defect. If it is not possible to correct or make safe the defect at the time of inspection, which will generally be the case, repairs of a permanent or temporary nature should be carried out as soon as possible and in any case within a period of 48 hours (this can be reduced to 24hr at the Inspector's discretion). Permanent repair should be carried out within 28 days. Examples of Cat 1 defects are items such as large potholes, obstacle, or trip hazard in the path of vehicles or pedestrians, exposed electrical equipment, and damaged street furniture leaving sharp edges likely to injure users.
- > At the discretion of the officer undertaking the inspection Cat 1 defect can be upgraded to priority ME order for a 2 hour response time. If felt necessary the inspector shall remain at the site to warn highway users of the necessary hazard until the area has been made safe
- > Category 2 defects are those which, following a risk assessment, are deemed not to represent an immediate or imminent hazard or risk of short term structural deterioration. Such defects may have safety implications, although of a far lesser significance than Category 1 defects, but are more likely to have serviceability or sustainability implications.
- > Category 3 is used for defects which do not pose an immediate risk to users due to their nature or location on a given asset but still exceed the borough's intervention level. This category is also used for defects likely to become Cat 1 defects if left untreated until the next cyclic inspection. Examples of Cat 3 defects are items such as obscured direction signs, minor drainage issue, potholes and footway depressions below the intervention level.
- > Category 4 defects are those which do not currently meet the LBB intervention level but are worth noting for potential intervention as part of future overall planned maintenance works.

6.7 Safety Defect Correction - Work Instructions (Cyclic and Reactive)

- > The Council ensures that all safety defect repairs are undertaken in accordance with the correct timescales, frequency, and quality, as failure to do so will severely influence the Council's ability to defend claims.
- > Work instructions for defect repairs are issued directly from Confirm by the highways inspectors. Having identified and categorised a defect, Inspectors choose from a list of preset corrective treatments how the defect is to be corrected.
- > The LBB Direct Labour Organisation (DLO) is currently providing the emergency (ME) call out service for out of hours requirements.
- > The LBB Maintenance Contractor will provide the emergency (ME) call out service Monday to Friday working hours requirements.
- > The Maintenance Contractor provides the Category 1, 2 and 3 responses during in hours service.
- > The contractors carry out the defect correction as per the original instruction. The contractors are responsible for submitting and getting written approval for any variation of instruction in terms of type and quantities of treatment prior to carrying out the works. No variation in committed costs will be accepted post completion.
- > If a repair is defective then a defect notice will be issued to the contractor with instruction to repair, this is at their cost and is required immediately. All defect notices are stored on a register for completeness and review when required.

6.8 Performance Monitoring (Cyclic and Reactive)

- > Performance monitoring of the inspection process is carried out by the Senior Highway Inspectors in two ways.
 - Day to day management and communication with the inspectors
 - Analysis of monthly progress report from the database.
- > A report is produced monthly from the inspection database indicating as a minimum:
 - % of the network inspected to planned schedule (with tolerance) by area
 - % of the network overdue for inspection by area
 - Audit requirements as per relevant KPI's
- > The current suite of KPI's linked to highways inspections are outlined in Re KPI and PI Owners List (2021_22).
- > Payments for safety defect works completed by the contractors are issued on a monthly basis. Ahead of any payments being released a status report is obtained from the database. The report shows the following information for the safety defects issued and corrected in the last calendar month sorted out by category and type:

- Number of safety defects issued
 - ID and value of safety defects rectified on time
 - ID and value of safety defect rectified late
 - ID and value of outstanding safety defects (both within and outside the rectification period)
- > Payment is checked against this report prior to certification.
- > LBB will review the inspection, assessment and recording regime annually to consider:
- Change in legislation or best practice (Code of Practice)
 - Changes to the LBB ONH and network characteristics and use
 - Completeness and effectiveness of data collected
 - Effectiveness of data analysis
 - The need for changes to the inspection regime derived from risk assessment
 - Compliance with legal obligations
 - Network serviceability and condition
 - Opportunities for improvement
 - Service delivery performance
- > Changes to frequency or intervention criteria will be discussed at regular Inspector team meetings and the outcome reported to the Operations Manager. Recommendations for change will be discussed with the Head of Service and the Insurance Claims Manager and managed via the ONH dynamic risk assessment process.
- > The Council will continue to engage with neighbouring authorities in regard to cross boundary arrangements to review road hierarchies across local authority boundaries and compare inspection procedures and where necessary harmonise standards.

6.9 Budgets

- > It is essential that the reactive maintenance budget set out to cover the cost of inspecting and repairing identified designated safety defects is adequate to allow the Council to fulfil the commitments defined in this procedure.
- > Failure to set aside enough money to inspect or repair defects would reduce the Council's ability to defend itself against legal challenges for personal damages and expose it to an unacceptable level of risks.
- > The current annual allowance for defects is 10637 jobs based upon the lump sum costing outlined in the current term maintenance contract with TKJV.
- > Specific contract details and financials will not be included in this document.

6.10 Highway Inspector Training

- > The principle training objective is to ensure quality and consistency of decision making, safety defect interventions and records,
- > The Highway Inspectors and the Senior Highway Inspectors are all required to attend a technical course dealing with safety inspections and the relevant legislations attached to them. Attendees are required to pass a short examination at the end of the course to gain a certificate of competence. The training and examination are renewed every fifth year to ensure that staff's knowledge remains good and up to date with the current legislations and recommendations. Training requirements shall be in line with those set out in the CoP Well Managed Highway Infrastructure 2016.
- > Each Highway Inspector will understand his or her responsibilities, their role in any claims process and take a pride in securing a safe highway for all road users. This should incorporate not only the identification of safety defects but continued vigilance to ensure that the area is kept in a safe condition and that the correct/necessary ? repairs are completed to standard.
- > On top of the required professional knowledge, separate training sessions will be organised in 2021 to assist the team and its managers to migrate from the previous Bentley Exor system to the current Confirm system. [completion scheduled for December 2021]
- > Specific sessions involving the contractors will also be organised to ensure that the requirement of the new procedure are understood by all involved in this process.
- > Specific training requirements over and above that described previously will be identified through the Council's staff development and appraisal process.

6.11 Health & Safety Risk Assessment Method Statement for Safety Inspections

- > All inspections will be carried out in a safe manner in order to protect the inspector and the public. The individual, corporate and management responsibilities are set out in the Council's statement for compliance with the Health and Safety at Work Act 1974.
- > All staff must be aware of and discharge their responsibilities in accordance with the relevant risk assessments for their specific activities.
- > Inspections in Barnet are carried out either individually on foot or in teams of two inspectors when driven.

- > The inspector will wear the appropriate PPE clothing and footwear for the activity, location and potential weather conditions. Where necessary each inspector will be issued with the following:
 - Reflective jacket/vest
 - Waterproof clothing
 - Safety footwear
 - Mobile phone – smartphone ?
 - Handheld data collection device
 - Maps
 - Backup report sheets for use in the event of system failure
 - Inspection manual (HISIM)
 - Measuring wheel
 - Tape measure / measuring board
 - Digital Camera
- > Reflective clothing will always be worn when undertaking inspections
- > Walked inspections should, wherever possible, be carried out from the footway. The recording of data must be carried out from the footway or other safe place
- > When marking out work in the carriageway "Surveying" signs must be displayed at each end of the section of road warning traffic from both directions
- > In very heavy traffic it is essential that marking out be undertaken by two people. The second person will concentrate on safety and be on the lookout for traffic. It may be necessary to defer inspection, such as rescheduling the inspection for a time of day when traffic is lighter. In some circumstances traffic management measures may be required.
- > Inspectors will be made aware that if in any doubt on how to complete the inspection and identification of the works required in a safe manner, they are to discuss the matter with their line manager before proceeding.
- > Under no circumstances should inspection staff handle needles, syringes or other sharp objects.
- > Any instances of racist or obscene graffiti observed shall be reported immediately by mobile phone to the Cleansing Team.

7. Other General Inspections

7.1 Street Lighting Inspections

- > The provision, operation and maintenance of street lighting in LBB is managed through the Street Lighting PFI (Private Finance Initiative) Contract. This includes all inspections and repairs necessary to maintain the specified level of operational lighting and to assist in defending street lighting related claims against the Council.
- > The Service Provider currently carries out night scouts (inspections) of all street lighting apparatus on a weekly basis. All street lighting related emergency call-outs should be attended to within one hour.
- > Lighting level checks are also undertaken on up to 30 roads each month to check the quality of lighting. Further details can be found in the PFI's contract documentation.

7.2 Tree Inspections

- > LBB is responsible for inspecting all trees on highway land as well as any tree that may be overhanging or have the potential to fall on the highway. These are collectively called 'Highway Trees'.
- > Highway Inspectors carry out basic visual assessments of these trees as part of the highway safety inspections and handle directly any issues caused as result of overhanging or overgrown tree on the public highway via the issue of a section 154 notice to the tree's rightful owner. Any other concerns noted by the Highway Inspectors as part their cyclic inspections are reported to the Council's Street Scene Services for further inspection.
- > In parallel to the above the Council's Street Scene Services ensures that all highway trees are subjected to a detailed inspection by a specialist contractor once every three years. A health and safety check of all trees in parks and public open spaces is also undertaken annually by trained arboriculturists.

7.3 Drainage Inspections

- > The general condition (missing or cracked covers, blocked) of road and footway gullies is observed as part of the cyclic safety inspections undertaken by Highway Inspectors.
- > Reactive service inspections are carried out on specific problem sites by the borough's drainage engineer as a result of public complaint or query.
- > The current maintenance regime is managed by the Asset Management team.

7.4 Traffic Signs and Road Markings

- > The general condition of traffic signs, street nameplates and road markings throughout the borough are reviewed using section 6.5 of this Manual criteria by Highway Inspectors as part of the safety inspections. Safety defects interventions are instructed as appropriate

7.5 Highway Use Licensing

- > The Highways Act (HA) gives The Council (LBB), as the Highway Authority, the power to regulate a number of activities on the public highway.
- > Under the HA LBB may issue licences for the erection of scaffoldings, placing of skips and building materials on the public highway and various other licenses under part 9 of the Highways Act 1980. The issuing of these licences allows the Council to co-ordinate such activities with other planned works in the vicinity and ensures that the condition of any asset is not compromised afterward and that highway safety is assured.
- > Highway Inspectors will receive a Highway Licence application and its details from the admin team, they will then review and advise upon suitability.
- > Site inspections for compliance with highway licence requirement are carried out by the Highway Inspectors who ensure that these activities are properly licensed and that the conditions placed on these licenses are adhered to. These visits are recorded on Confirm and reported on site, any enforcement requirements will then be dealt with by the senior inspector alongside the legal team.
- > All past and present licences information is stored in the Confirm database to enable proper co-ordination of activities on the public highway. Highway Inspectors have sight of this information on their handheld computers and check for compliance while carrying out cyclic inspections. Any observed breach in condition is reported to the admin team for remedial actions (which can include the issuing of fixed penalty notices) to be taken.

7.6 Insurance Claims

- > The Highway Inspectors will investigate and respond to insurance claim queries (Service Request logged) as received from the LBB insurance team. Once a claim pack is received, inspectors then have 10 working days to prepare their response and issue back to the insurance team who will assess and decide upon liability.
- > Inspectors will lead on the review and validation of insurance claims – these claims can be things such as damaged cars due to dislodged paving or potholes, slips trips and falls due to cracked paving and other hazards which cause injury or damage as a result of an incident.
- > Accident Report Document (ARD's) - inspectors review the claim and our own information against our inspection records. If a defect is found it will be repaired. ARD's have strict timescales for response and when assessed by the inspector the completed record is submitted to insurance for a decision on liability.

- > Legacy information on inspection records will be kept on Confirm for access should any insurance claims require historic information.
- > Safety inspections are key to insurance claims as they provide a record of our maintenance responsibilities and actions. It is crucial that the inspection regime is adhered to in order to prove the authority has carried out its statutory duties to maintain the highway network.
- > Insurance claim information is used to map any trends or clusters in claim activity and assessed against safety defect information to dynamically consider temporary risk upgrades to the ONH and inspection frequencies.

7.7 Third Party Damage to LBB Highway Infrastructure Assets

Under certain circumstances relating to vehicular accidents and crashes that damage or destroy road restraint systems (vehicular and pedestrian barriers), signs, bollards and lighting columns for example, it may be possible to include the costs of repairs to assets through the third party insurance process. An assessment will be made by the Operations Manager as to the cost benefits of pursuing recovery.

7.8 Vehicular Crossings (of footways)

A clear documented process is in place to request, manage and pay for requests for vehicular crossings.

8. General Summary

This LBB Highway Infrastructure Safety Inspection Manual (HISIM) sets out a clear and managed process and procedure to deliver an effective risk based highway inspection maintenance system. It is an efficient system subject to performance monitoring and is compliant with all key legislation and best practice guidance. It fulfils the Council's statutory duties under the Highways Act 1980.

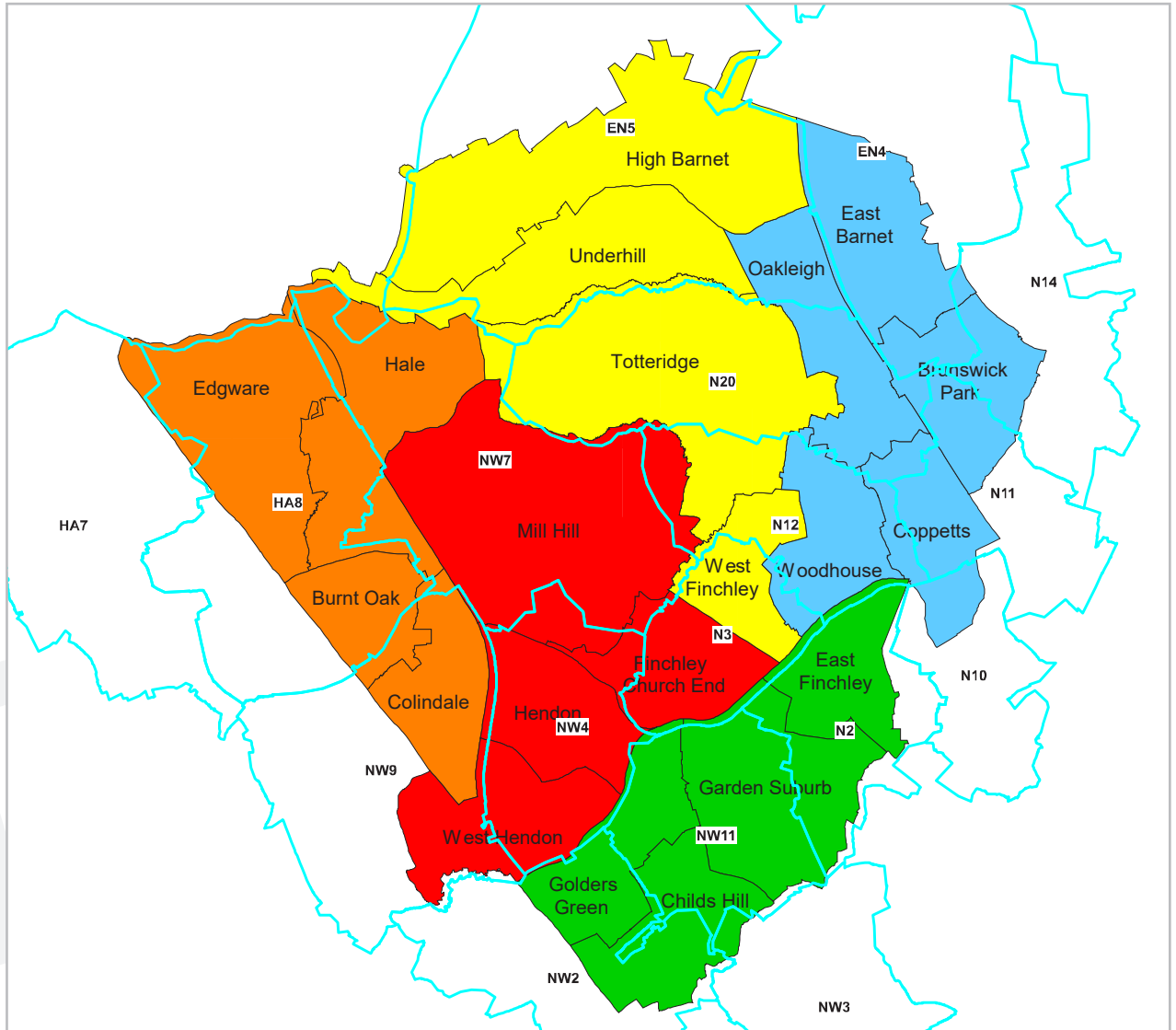
The HISIM follows the guidance set out in the (Well-Managed Highways Infrastructure Code of Practice October 2016) for highways maintenance management. The HISIM should be read in conjunction with the LBB HIAMP and the CoP..







The manual will be reviewed on an annual basis. Reviews will include legislative updates, guidance updates, organisational structure changes, operational changes and any other items which may influence the contents of this manual.

Appendix A

Ward and Town Centres Locations

Appendix A: Ward and Town Centres Locations



Wards by Inspector	
	Area 1 Antony Leigh 07939 551328
	Area 2 Marciano (Rocky) Bryan 07984 695943
	Area 3 Andrew Broom 07566 290073
	Area 4 Susan Weyman 07775 016979
	Area 5 Stewart Green 07904526830
	Post Code Boundaries

Appendix B

Inspectors Beat Areas

Appendix C

Operational Network Hierarchy

Appendix C: Operational Network Hierarchy



Operational Network Hierarchy Review and Management Plan

Review Version 6: December 2021 - DRAFT

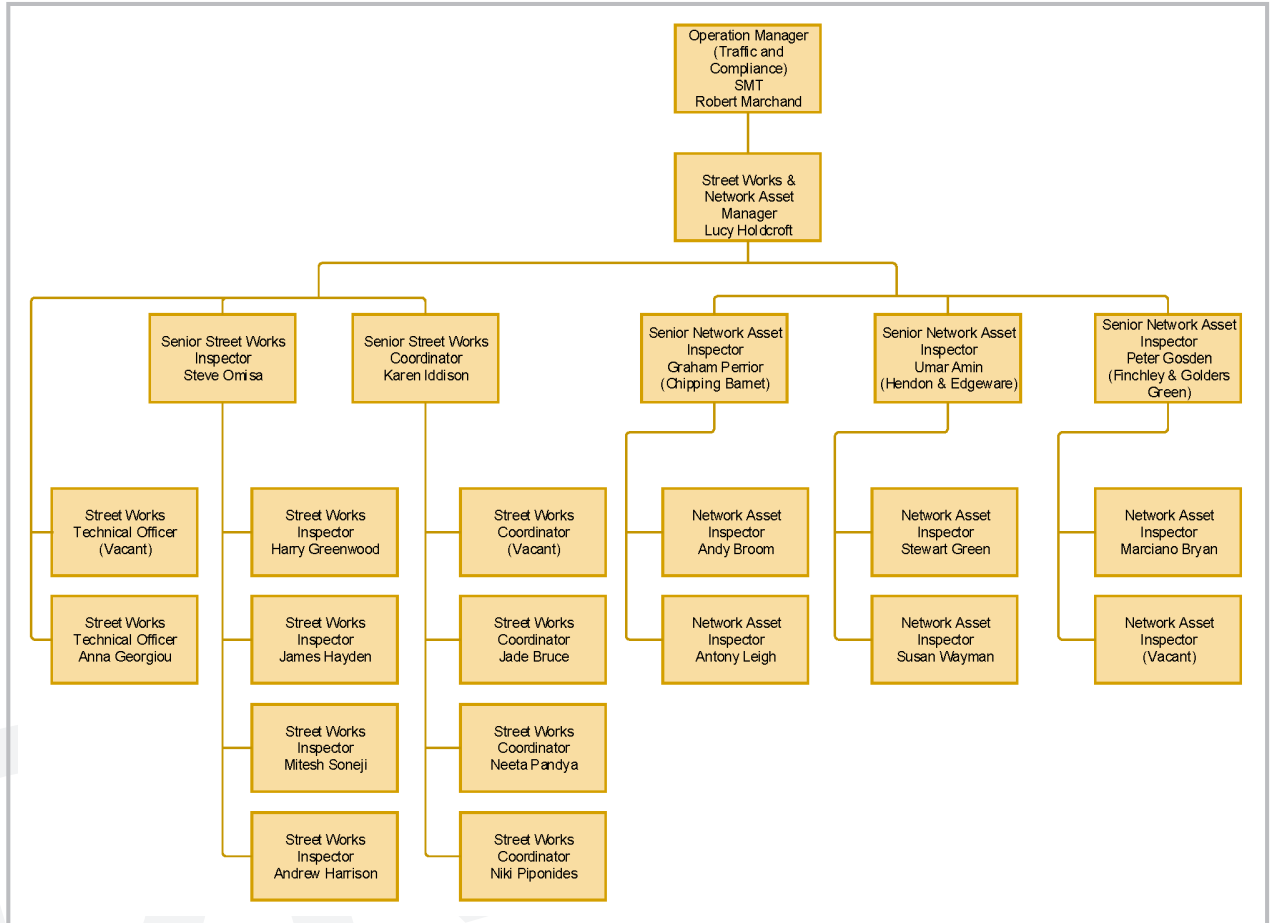


We care about place

Appendix D

Maintenance Team Organogram

Appendix D: Maintenance Team Organogram



Appendix E

Safety Defect KPIs

Appendix E: Safety Defects KPI

HIGHWAYS 1.1	Annual programme relating to Highway Safety Inspections
HIGHWAYS 2.1	Emergency Defects Rectification Timescales completed on time (2 hours)
HIGHWAYS 2.2	Category 1 Defects Rectification Timescales completed on time (48 hours)
HIGHWAYS 2.3	Category 2 Defects Rectification Timescales completed on time (7 days)
HIGHWAYS 2.4	Insurance Investigations completed on time
HIGHWAYS 2.6	Response in dealing with Highway Licence applications

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Appendix F

Well-Managed Highway Infrastructure: Recommendations

Appendix F: Ward and Town Centres Locations

A Summary of the 36 Codes of Practice ('Well-managed Highway Infrastructure') Recommendations

RECOMMENDATION 1 – USE OF THE CODE

This Code, in conjunction with the UKRLG Highway Infrastructure Asset Management Guidance, should be used as the starting point against which to develop, review and formally approve highway infrastructure maintenance policy and to identify and formally approve the nature and extent of any variations.

RECOMMENDATION 2 – ASSET MANAGEMENT FRAMEWORK

An Asset Management Framework should be developed and endorsed by senior decision makers. All activities outlined in the Framework should be documented.

RECOMMENDATION 3 – ASSET MANAGEMENT POLICY AND STRATEGY

An asset management policy and a strategy should be developed and published. These should align with the corporate vision and demonstrate the contribution asset management makes towards achieving this vision.

RECOMMENDATION 4 – ENGAGING AND COMMUNICATING WITH STAKEHOLDERS

Relevant information should be actively communicated through engagement with relevant stakeholders in setting requirements, making decisions and reporting performance.

RECOMMENDATION 5 – CONSISTENCY WITH OTHER AUTHORITIES

To ensure that users' reasonable expectations for consistency are taken into account, the approach of other local and strategic highway and transport authorities, especially those with integrated or adjoining networks, should be considered when developing highway infrastructure maintenance policies.

RECOMMENDATION 6 – AN INTEGRATED NETWORK

The highway network should be considered as an integrated set of assets when developing highway infrastructure maintenance policies

RECOMMENDATION 7 – RISK BASED APPROACH

A risk based approach should be adopted for all aspects of highway infrastructure maintenance, including setting levels of service, inspections, responses, resilience, priorities and programmes.

RECOMMENDATION 8 – INFORMATION MANAGEMENT

Information to support a risk based approach to highway maintenance should be collected, managed and made available in ways that are sustainable, secure, meet any statutory obligations, and, where appropriate, facilitate transparency for network users.

A Code of Practice RECOMMENDATION 9 – NETWORK INVENTORY

A detailed inventory or register of highway assets, together with information on their scale, nature and use, should be maintained. The nature and extent of inventory collected should be fit for purpose and meet business needs. Where data or information held is considered sensitive, this should be managed in a security-minded way.

RECOMMENDATION 10 – ASSET DATA MANAGEMENT

The quality, currency, appropriateness and completeness of all data supporting asset management should be regularly reviewed. An asset register should be maintained that stores, manages and reports all relevant asset data.

RECOMMENDATION 11 – ASSET MANAGEMENT SYSTEMS

Asset management systems should be sustainable and able to support the information required to enable asset management. Systems should be accessible to relevant staff and, where appropriate, support the provision of information for stakeholders.

RECOMMENDATION 12 – NETWORK HIERARCHY

A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

RECOMMENDATION 13 – WHOLE LIFE / DESIGNING FOR MAINTENANCE

Authorities should take whole life costs into consideration when assessing options for maintenance, new and improved highway schemes. The future maintenance costs of such new infrastructure are therefore a prime consideration.

RECOMMENDATION 14 – RISK MANAGEMENT

The management of current and future risks associated with assets should be embedded within the approach to asset management. Strategic, tactical and operational risks should be included as should appropriate mitigation measures.

RECOMMENDATION 15 – COMPETENCIES AND TRAINING

The appropriate competency required for asset management should be identified, and training should be provided where necessary.

RECOMMENDATION 16 – INSPECTIONS

A risk-based inspection regime, including regular safety inspections, should be developed and implemented for all highway assets.

RECOMMENDATION 17 – CONDITION SURVEYS

An asset condition survey regime, based on asset management needs and any statutory reporting requirements, should be developed and implemented.

RECOMMENDATION 18 – MANAGEMENT SYSTEMS AND CLAIMS

Records should be kept of all activities, particularly safety and other inspections, including the time and nature of any response, and procedures established to ensure efficient management of claims whilst protecting the authority from unjustified or fraudulent claims.

RECOMMENDATION 19 – DEFECT REPAIR

A risk-based defect repair regime should be developed and implemented for all highway assets.

RECOMMENDATION 20 – RESILIENT NETWORK

Within the highway network hierarchy a 'Resilient Network' should be identified to which priority is given through maintenance and other measures to maintain economic activity and access to key services during extreme weather.

RECOMMENDATION 21 – CLIMATE CHANGE ADAPTATION

The effects of extreme weather events on highway infrastructure assets should be risk assessed and ways to mitigate the impacts of the highest risks identified.

RECOMMENDATION 22 – DRAINAGE MAINTENANCE

Drainage assets should be maintained in good working order to reduce the threat and scale of flooding. Particular attention should be paid to locations known to be prone to problems, so that drainage systems operate close to their designed efficiency.

RECOMMENDATION 23 – CIVIL EMERGENCIES AND SEVERE WEATHER EMERGENCIES PLANS

The role and responsibilities of the Highway Authority in responding to civil emergencies should be defined in the authority's Civil Emergency Plan. A Severe Weather Emergencies Plan should also be established in consultation with others, including emergency services, relevant authorities and agencies. It should include operational, resource and contingency plans and procedures to enable timely and effective action by the Highway Authority to mitigate the effects of severe weather on the network and provide the best practicable service in the circumstances.

RECOMMENDATION 24 – COMMUNICATIONS

Severe Weather and Civil Emergencies Plans should incorporate a communications plan to ensure that information including weather and flood forecasts are received through agreed channels and that information is disseminated to highway users through a range of media.

RECOMMENDATION 25 – LEARNING FROM EVENTS

Severe Weather and Civil Emergencies Plans should be regularly rehearsed and refined as necessary. The effectiveness of the Plans should be reviewed after actual events and the learning used to develop them as necessary.

RECOMMENDATION 26 – PERFORMANCE MANAGEMENT FRAMEWORK

A performance management framework should be developed that is clear and accessible to stakeholders as appropriate and supports the asset management strategy.

RECOMMENDATION 27 – PERFORMANCE MONITORING

The performance of the Asset Management Framework should be monitored and reported. It should be reviewed regularly by senior decision makers and when appropriate, improvement actions should be taken.

RECOMMENDATION 28 – FINANCIAL PLANS

Financial plans should be prepared for all highway maintenance activities covering short, medium and long term time horizons.

RECOMMENDATION 29 – LIFECYCLE PLANS

Lifecycle planning principles should be used to review the level of funding, support investment decisions and substantiate the need for appropriate and sustainable long- term investment.

RECOMMENDATION 30 – CROSS ASSET PRIORITIES

In developing priorities and programmes, consideration should be given to prioritising across asset groups as well as within them.

RECOMMENDATION 31 – WORKS PROGRAMMING

A prioritised forward works programme for a rolling period of three to five years should be developed and updated regularly.

RECOMMENDATION 32 – CARBON

The impact of highway infrastructure maintenance activities in terms of whole life carbon costs should be taken into account when determining appropriate interventions, materials and treatments.

RECOMMENDATION 33 – CONSISTENCY WITH CHARACTER

Determination of materials, products and treatments for the highway network should take into account the character of the area as well as factoring in whole life costing and sustainability. The materials, products and treatments used for highway maintenance should meet requirements for effectiveness and durability.

RECOMMENDATION 34 – HERITAGE ASSETS

Authorities should identify a schedule of listed structures, ancient monuments and other relevant assets and work with relevant organisations to ensure that maintenance reflects planning requirements.

RECOMMENDATION 35 – ENVIRONMENTAL IMPACT, NATURE CONSERVATION AND BIODIVERSITY

Materials, products and treatments for highway infrastructure maintenance should be appraised for environmental impact and for wider issues of sustainability. Highway verges, trees and landscaped areas should be managed with regard to their nature conservation value and biodiversity principles as well as whole-life costing, highway safety and serviceability.

RECOMMENDATION 36 – MINIMISING CLUTTER

Opportunities to simplify signs and other street furniture and to remove redundant items should be taken into account when planning highway infrastructure maintenance activities.

Appendix G

Safety Defect Risk Categorisation Matrix Guidance

Appendix G: Safety Defect Risk Categorisation Matrix Guidance

CARRIAGEWAYS														
Network Hierarchy	Risk rating	Excessive smoothness		Potholes		Loose Material etc		Regulatory Lines – excessive wear		Inverock		Edge Damage	Urnwareness – rilling etc	Displaced road stud, cat's eyes and debris
		Cycle Lanes	Other Locations	Cycle Lanes	Other Locations	Cycle Lanes	Other Locations	Cycle Lanes	Other Locations					
Carriageway to 4 & 5 Carriageway A, B & C Low (other area of carriageway)	High (in line with pedestrian / cycle path) Medium (adjacent with pedestrian / cycle path) Low (other area of carriageway)	1	1	3	3	1	1	1	1	3	4	1	4	4
		2	2	4	4	3	4	2	4	4	4	4	4	1
		3	4	4	4	4	4	4	4	4	4	4	4	4

FOOTWAYS														
Network Hierarchy	Risk rating	Engine – missing ironwork, etc		Network		General Surface		Kerbing defects		PROBABILITY				
		Trips > 25mm	Missing ironwork	Broken or loose – Trips (ironwork) or surface defects	Low/cracked/loose – not in immediate hazard	As per table	As per table	Trips > 25mm, Gaps/joints > 25mm, surface holes, undulations etc	Loose, lifting etc	Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
High (in line with pedestrian / cycle path) Medium (adjacent with pedestrian / cycle path) Low (other area of footway)	High (in line with pedestrian / cycle path) Medium (adjacent with pedestrian / cycle path) Low (other area of footway)	1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2	2
		4	4	4	4	4	4	4	4	4	4	4	4	4

STREET FURNITURE, VEGETATION AND STRUCTURAL INSPECTIONS													
Network Hierarchy	Risk rating	Building, wall etc		Tree and vegetation defects		Furniture defects		Urban furniture – safety hazard		On highway		Off highway – safety hazard	
		Building, wall etc	In trees about 10m from road	Prior to replacement or maintenance of any street furniture ensure justifications is still warranted	Furniture defects	Urban furniture – safety hazard	On highway	Off highway – safety hazard					
High (in line with pedestrian / cycle path) Medium (adjacent with pedestrian / cycle path) Low (other area of footway)	High (in line with pedestrian / cycle path) Medium (adjacent with pedestrian / cycle path) Low (other area of footway)	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2
		4	4	4	4	4	4	4	4	4	4	4	4

RESPONSE CATEGORY		RISK FACTOR	
Category 1	Emergency	25	Emergency
Category 2	Cat1	15-20	Cat1
Category 3	Cat2	8-12	Cat2
Category 4	Cat3	5-6	Cat3
Category 4	Cat4	1-4	Cat4

RESPONSE CATEGORY		DESCRIPTION	
Category 1	Emergency	Correct/repair or make safe within 24 hours preferred, 48 hours maximum. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out as soon as possible. If a permanent repair is not possible, the defect should be permanently resolved by the defect team it may be left at a "make safe" status. Normally this time period would not exceed 6 months.	
Category 2	Cat1	Correct/repair or make safe within 7 days. If it is not possible to correct/repair defect within these time periods, a permanent repair should be carried out within 28 days. If there are no planned maintenance/improvement works that could/would permanently resolve the defect, the defect may only be left at a "make safe" status. Normally this time period would not exceed 12 months.	
Category 3	Cat2	Correct/repair or make safe within 28 days unless planned maintenance/improvement works are planned.	
Category 4	Cat3	Normally reviewed during next inspection or if resources permit, correct during next available local area works.	

Notes	
All defects involving or resulting from utility company apparatus and/or works should be reported to the New Road and Street Works Act Team to contact the company involved to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.	
For defects located on private land or resulting from private property, the owners will need to be contacted to initiate repairs. Failure to act could result in remedial action being taken and costs recovered.	
Vulnerability of cyclists must be taken into account when assessing footway and kerb defects.	
During severe weather and at times of high numbers of defects being recorded it may be necessary to delay or suspend highway safety inspections and response times may need to be extended.	

Appendix H

LBB Asset Inventories

Appendix H: LBB Asset Inventories

Refer CONFIRM System for details and reports.

DRAFT

Appendix I

Document Review Table

Appendix I: Document Review Table

SECTION	REVIEW COMMENT	ACTION/UPDATE
1. Forward	Mainly text changes Removal of information on claims expenditure proposed	Obtain client approval for changes
2. Introduction	Mainly text changes	Obtain client approval for changes
3. Legislative Standards	Some text changes Added HIAMP as key policy reference Added clear link between HISIM and the stand alone ONH document to ensure document control and key document that drives inspection frequencies based on risk	Obtain client approval for changes Formal update December 2021 V6 ONH. Create link in electronic HISIM
4. Record Keeping	Some text changes	Obtain client approval for changes
5. Asset Inventory & Collection	Some text changes Propose clearer link to all asset inventory records eg. to those held in MMS- CONFIRM and other asset databases for Street Lighting and gullies Reference part of the ONH that sets out system for Insurance risk management – dynamic review temporary upgraded risk. Could be an additional appendix to help illustrate example of process in place to discuss with and confirm to Inspectors and CONFIRM.	Obtain client approval for changes
6. Safety Inspections	Some text changes Text changes needed to remove 'discussional' points – final version just needs the LBB system Key confirmation needed as to operational use of the Blue Books for defined inspection routes. Also needs conformation of whether the risk matrix is being used as a guide by inspectors. Propose addition of an Appendix to show the actual inspection team set and names/quals etc.	Obtain client approval for changes
7. Other General Inspections	Some text changes Sections to be added in to cover Third Party Damage and Vehicular Crossings	Obtain client approval for changes
8. General Summary	Text changes	Obtain client approval for changes

SECTION	REVIEW COMMENT	ACTION/UPDATE
APPENDIX A	Insert the latest Ward/Inspector area map	Obtain client approval for changes Agree latest best map image for Ward boundaries and Town Centres
APPENDIX B	Insert example of defined weekly routes and if needed in electronic format links to the 5 x Area Blue Books	Obtain client approval for changes
NEW APPENDIX C	insert extract from ONH and electronic link as critical relationship with the HISIM	Obtain client approval for changes
NEW APPENDIX D	Insert the LBB Maintenance Team organogram General move to use this document to keep in one place and document control key details.	Obtain client approval for changes
NEW APPENDIX E	Insert KPI information	Obtain client approval for changes
NEW APPENDIX F	Insert Well Managed Highway Infrastructure: A Code of Practice 2016 Key Recommendations	Obtain client approval for changes
NEW APPENDIX G	Insert the existing Re. Safety Defect Risk Categorisation Matrix Guidance	Obtain client approval for changes
NEW APPENDIX H	Insert summary of LBB H/way Infrastructure Asset Inventories	Obtain client approval for changes

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Operational Network Hierarchy Review and Management Plan

Review Version 6: December 2021 - DRAFT



Project No: CS/078817



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Operational Network Hierarchy Review and Management Plan
Review Version 6 - DRAFT

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Issue Record

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V2	MAY '15	Update- agreed actions Zurich Review comments	Mark Rees-Williams	Dean Cronk
V3	AUG '15	Update: minor edits plus recommendations progress	Mark Rees-Williams	Dean Cronk
V4	NOV '16	Annual review – minor edits - Appendix N	Stephanie Malson	
V5 Draft	JULY'18	Annual review - Minor edits to reflect 2016 Code of Practice and Dynamic Assessment Process	Mark Rees-Williams	
V6 Draft	DEC'21	Annual review - Minor edits to confirm 2016 Code of Practice and Dynamic Assessment Process	Mark Rees-Williams	Andrew Gudge

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1. Overview

1.1 Purpose

The purpose of this document is to explain the complete process and methodology used by the London Borough of Barnet (LBB) to produce their Operational Network Hierarchy (ONH) using a factor based scoring system. The ONH applies to the carriageway, footway and designated cycleway networks where such exist, but excludes Public Rights of Way.

1.2 Background

The general operational characteristics* of a road network route are typically encapsulated within the traditional designations of the road classification (see section 2), Traffic Management Act traffic sensitivity designations, the Transport for London Road Network (TLRN) and the Strategic Road Network (SRN).

* *vehicle flows, percentage of HGVs, bus routes, importance to the economy, role in connecting population centres - cities/towns/settlements, network sensitivity (to congestion and disruption).*

Such factors are also key considerations and components in the designations of Highway Asset Management Plan (HAMP)/Transport Asset Management Plans (TAMP) network service level standards and for the Traffic Management Act Network Management Plan, particularly in terms of 'congestion' journey time reliability and network resilience.

Collectively such 'embedded' factors in the designation already set out the comparative importance between different parts of the network in terms of operational usage and importance between different routes and are an appropriate 'foundation' for an operational maintenance hierarchy.

There are a number of other factors that may necessitate particular localized parts of a network being recognized in the operational hierarchy as being significant and so upgraded or alternatively downgraded.



Manage risk by targeted planned maintenance

The Operational Hierarchy (ONH) was developed in 2014 as a Re. investment commitment (T3-81). The process has assessed the whole of the LBB maintained carriageway and footway network together with any designated cycleways. The LBB ONH does not cover those parts of the main strategic network directly and wholly managed by Transport for London TfL. The LBB network comprises a total of 687km of carriageway/footway equating to approximately 5million square metres of carriageway and 3 million square metres of footway.

Operational Network Hierarchy Review

The process assessed each defined section of the network against a range of operational factors which collectively reflect the level of use and importance of particular routes or localised parts of the carriageway and footway networks.

The project has defined and established a point score based LBB ONH which is maintained in an electronic GIS database*

*the MapInfo based GIS integrates with the CONFIRM system. Governance of key data sets (Appendix I sets out the database structure) is documented in the ONH Data Management Plan (Appendix M)

The ONH is used by LBB/Re. Highways to formulate the Highway Asset Management strategies and policies for the Safety Inspection system and annual planned maintenance programme. The ONH is designed to be a dynamic review approach to changing risks to help support service optimisation and operational efficiencies.

1.3 Why is an Operational Hierarchy needed?

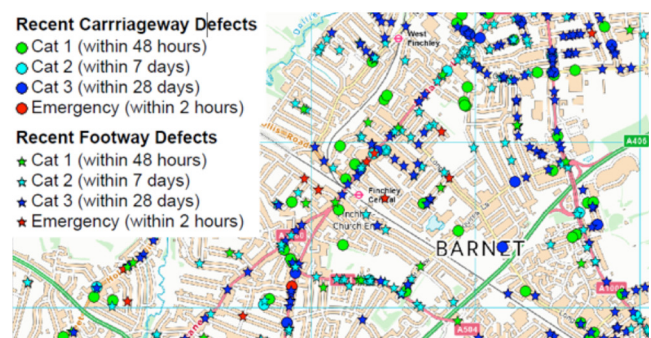
It is necessary to have a hierarchy because different parts of the carriageway and footway network have different characteristics and risks to users (drivers/vehicles, pedestrians and cyclists).

All Highway Authorities must comply with the Highways Act and in particular it is essential to be able to apply the Section 58 statutory defence to defend third party claim liabilities by demonstrating reasonable systems and maintenance to ensure road user safety. **A key part of such systems is a clear basis for applying different inspection and maintenance expenditure plans for different parts of the highway network.**

Drivers using the highway network are familiar with the national road classifications on roadmaps and being guided by advance directional road signing to a destination (M1, A41, A406, A5109 etc.). This is the system used by Satellite Navigation systems to select journey route options. The use of the Transport for London (TfL) Strategic Network road classifications and signing is designed to direct traffic in an efficient manner and achieve optimum journey times with free flow traffic.

Through this system drivers recognise that Motorways have the highest classification because of the volume of traffic they carry and their importance to the economy in distributing all manner of freight and goods. They are multi lane carriageways, properly designed and constructed and have good maintenance regimes supported by revenue and capital funding. At the opposite end of the scale local roads on residential estates and in rural areas are known by their street name and will typically be narrower single carriageway roads carrying low levels of traffic, in many cases with little or no formal construction.

The Well-Managed Highway Infrastructure: A Code of Practice 2016 provides nationally prepared guidance on how all highway authorities should define their networks in order to produce a network hierarchy. In simple terms the busiest or most important routes will be inspected most frequently and require expenditure to be prioritised over less well used or important roads.



GIS analysis of reactive maintenance

Operational Network Hierarchy Review

1.4 Benefits of an Operational Network Hierarchy

The network hierarchy is an essential tool for the Highway Authority and maintenance engineers to ensure that highway maintenance expenditure is focused where it will give the best value and is most needed. It is very important that the process followed is transparent, understandable, fair/equitable and auditable.

The reality is that demand for highway maintenance works has exceeded available budget resources for as long as maintenance engineers can remember and as a result there is a constant need for prioritization of maintenance schemes. Members and Officers alike need a justifiable basis for making decisions on which schemes to take forward and which to defer.

The application of a clear set of factors through a consistently applied points system will direct higher or lower levels of service designation for different parts of the network. The factor based adjustments will typically impact on localized sections of the network rather than whole route parts of the operational network, an example would be, for instance, in the immediate proximity of an important traffic or pedestrian generator such as a hospital, industrial estate, major shopping centre, school and transport hubs such as underground or mainline stations.

The example below shows how the inspection frequencies on local pedestrian routes to schools are increased from annual to 6-monthly on a permanent basis following the application of the key public services factor.

Barnet Network Inspection Frequencies

Monthly Quarterly 6-Monthly Annually



Foundation score inspection frequencies



Adjusted score inspection frequencies

Operational Network Hierarchy Review

1.5 Operational Network Hierarchy Scoring Process

The LBB/Re have devised a straightforward and consistent strategic network scoring system which derives a score by applying points against a range of 11 factors (see Appendix C) to each part of the network. This approach is carefully designed to assess the relative role and importance of a particular part of the network to road users. The 11 factors cover the following broad aspects of a highway network:

- actual usage in terms of vehicular traffic (both cars and heavy goods vehicles);
- Significant (above normal) pedestrian generating sections of the footway network
- strategic importance and traffic sensitivity;
- importance of a route to access key public services;
- access to town centres and prestige regeneration areas.
- Available incident and claims history (risks)

The starting point to the analysis is a 'foundation' score (Factor 1) applied to each part of the network. The foundation score is based on the Well-managed Highway Infrastructure: Code of Practice for Highway Maintenance Management categories for the LBB network (Appendix A & Appendix B).

Network sections are assessed as a carriageway and adjacent footway combination with the inspection requirement being applied to both footway and adjoining carriageway.

Each part of the carriageway/footway network has then been methodically considered against 10 further categories although not all factors will apply to all sections of the network and data may also not be available to apply the factor.

The application of the factors has the potential to locally change the operational characteristics of a given network section, either on their own or in combination with other adjoining sections. One such example would be an unclassified road which may in reality have the characteristics of a higher category 'C' road in terms of local volumes of traffic or the dependence/importance to the travelling public. Another example might be a local residential road that usually has low use but is a designated alternative or secondary route to a Hospital. For footways the characteristic may be influenced by the proximity of schools and underground stations. The review has specifically analysed such locations (for example Appendix J).

In the example below sections have been moved down into less frequent and up into more frequent inspections as a result of greater vehicle flows, lesser pedestrian flows and/or sensitivity to rush hour traffic.

ROAD NAME	FOOTWAY LOCAL HIERARCHY	CARRIAGEWAY LOCAL HIERARCHY	FACTOR 1 FOUNDATION SCORE	FACTOR ADJUSTMENTS			ADJUSTED SCORE
				FACTOR 2 VEHICLE FLOW	FACTOR 3 PEDESTRIAN FLOW	FACTOR 5 TRAFFIC SENSITIVE	
Barnet Gate Lane	Cat4 Local Access Footway	Cat4a Link Road	200	0	-100	0	100
Barnet Road	Cat3 Link Footway	Cat3a Main Distributor	400	0	-200	50	250
Hendon Wood Lane	Cat3 Link Footway	Cat3b Secondary Distributor	300	0	-100	0	200
Mays Lane	Cat4 Local Access Footway	Cat4a Link Road	200	0	-100	0	100
Nuption Drive	Cat4 Local Access Footway	Cat4b Local Access	100	0	0	50	150
Quinta Drive	Cat3 Link Footway	Cat4b Local Access	100	50	0	0	150



Foundation score inspection frequencies



Adjusted score inspection frequencies

Applying this approach to the Operational Network Hierarchy will objectively and consistently identify those parts of the network which warrant 'enhanced' or 'reduced' status in the hierarchy due to their locally assessed characteristics. The factor based adjustments will typically impact on localized rather than whole route parts of the operational network.

The database contains the 11 factors, described in Appendix C, together with other data sets needed to calculate the factor scores and support map display functionality. A tabulation of the data fields is included at Appendix I.

The project to apply the hierarchy applied a test validation phase (sense check) in conjunction with the LBB Client representatives.

The total points score variance to the foundation score will establish either a neutral, enhanced or reduced classification for each section.

The assessed operational hierarchy scores for each part of the network are maintained in the database and subject to periodic review by the database administrator (see para. 1.2). A Data Management plan to ensure due process, governance and sign off of change control to the ONH applies (see Appendix M).

2. Links to Existing Road Classifications & Hierarchies

2.1 Route Capacity Classifications

Established road classifications are a good indication of relative importance and usage (volume of traffic, particularly HGVs). They directly correlate to network maintenance strategy and carriageway asset deterioration (wear and tear). Road classifications will periodically be reviewed as new infrastructure impacts on strategic routing. By way of example an 'A' road may be re-classified to a 'B' Road as a result of a new by-pass. Footways may be changed as a result of major development regeneration projects such Brent Cross which could create Prestige Walking Zones or Primary Walking Routes.

There is a correlation between the volume of traffic flow and the risks to users. It is important to identify those sections of the network which are carrying significantly more traffic than they have been designed for. The traffic capacities for urban roads are tabulated in Appendix D. These traffic flows are the basis for assessing factor 2, the vehicular traffic volume and factor 3, the HGV adjustment.

2.2 Well Managed Highway Infrastructure - Code of Practice Hierarchy

The current 2016 publication Code of Practice (Well Managed Highway Infrastructure) retains the predecessor Code guidance and importance placed on locally appropriate network hierarchies.

The Code of Practice (COP) guidance for maintenance hierarchies is set out in Section 4.3 Functional Hierarchy and A 4.3.11 Table 1 and A 4.3.14 Table 2 and covers Motorway, Strategic, Main and Secondary Distributors, Link Roads, Local Access and Minor Roads (carriageways) and the Prestige/Primary and Secondary walking routes/ Link/Local Access and Minor Footways as well as Cycleways.

The primary function of the maintenance hierarchy is to:

- underpin the COP directive for risk based maintenance and resource (budget) allocation;
- provide the Section 58 defence under the Highway Act 1980 in terms of risk management;

The COP risk based maintenance hierarchy directs the intervals for regular scheduled inspection and the defined intervention points in terms of safety defects and is the basis for the Highway Maintenance Plan. The hierarchy also directs the prioritization of planned maintenance programmes (revenue and capital).

Appendix E illustrates the relationships and linkage between route classifications, COP hierarchy guidance and inspection frequencies. The 2016 COP no longer provides specific guidance for inspection intervals related to designated types of carriageways or footways. The Authority has retained the intervals that had been established based on previous best practice and local risk assessment.

3. Network Review and Monitoring

As part of the ONH Management Plan the local network hierarchy will be periodically re-assessed using the guidelines and factor based point scoring approach to accommodate any significant changes to the network environment. It is recommended that an annual formalized reassessment is conducted with the database being the 'tool' to conduct the review in line with the dataset management and update protocols identified in Appendix M.

In addition in response to dynamic network condition risks a dynamic ongoing assessment will be undertaken every 6 months based on actual safety defect and third party claim information.

4. Role of Hierarchy on Capital and Revenue Investment

The points scoring system is designed to achieve an appropriate level of sensitivity to be able to influence and justify the movement of a foundation classification route to a higher or lower band of service or prioritization attracting either an enhanced or reduced level of service and resource allocation.

The diagram in Appendix E is illustrative of the connectivity between bandings and thresholds on service delivery outcomes and ultimately...expenditure and investment.

The factors potentially raise or lower the importance of a route or part of a route. The reasons may be permanent, semi permanent or temporary. Periodic reviews of the network will revisit such factors.

The Operational Hierarchy classification will not formally alter the route classification but it will identify parts of the network which are required to function with non typical characteristics. This assessment will inform operational risk and budget decisions.

In operational terms the 'importance' of a route in terms of need for maintenance (capital or revenue) will be defined by:

- Safety Defect Rating System for frequency of inspection (and defect intervention levels);
- The order/priority that the planned maintenance programme is tackled.

5. Role of Operational Hierarchy on Insurance Claims

Poorly maintained roads leave the Council at risk of receiving third party insurance claims for vehicle or property damage and/or personal injury as a result of potholes in carriageways or defects in the surface of footways. Whilst the Council as Highway Authority is not liable for a defect they do not know about, they are required to demonstrate that an effective system is in place to ensure road condition surveys (inspections) are carried out at appropriate intervals.

The Council must also demonstrate that if they are notified of defects, either by their own staff or a member of the public, that repairs are completed within a timely manner commensurate with clear and reasonable decision making and response times.

Operational Network Hierarchy Review

These factors are used as a **dynamic assessment** to apply if necessary a temporary increased risk, and more frequent scheduled inspection, based on enhanced probability of safety defects developing in the asset prior to planned maintenance and/or the next scheduled inspection. The ONH GIS database management plan sets out periodic data update processes for reactive maintenance workticket instructions, ongoing claims and planned maintenance schemes to allow changes to the ONH to be proposed. The current frequency for the assessment is twice yearly.

This ONH Management Plan integrates with the LBB HAMP and the current Network Recovery Plan NRP supplement to the HAMP which are strategically focused on directing maintenance expenditure to close out such risks as quickly as possible through targeted planned maintenance. Upon completion of planned maintenance the number of defects and claims recorded at that location should reduce to zero. The absence of defect and claims will return a section to its original adjusted score and inspection frequency and it will no longer appear on the temporary increased risk list.

6. Recommendations

It was originally recommended that the Council take the following actions:

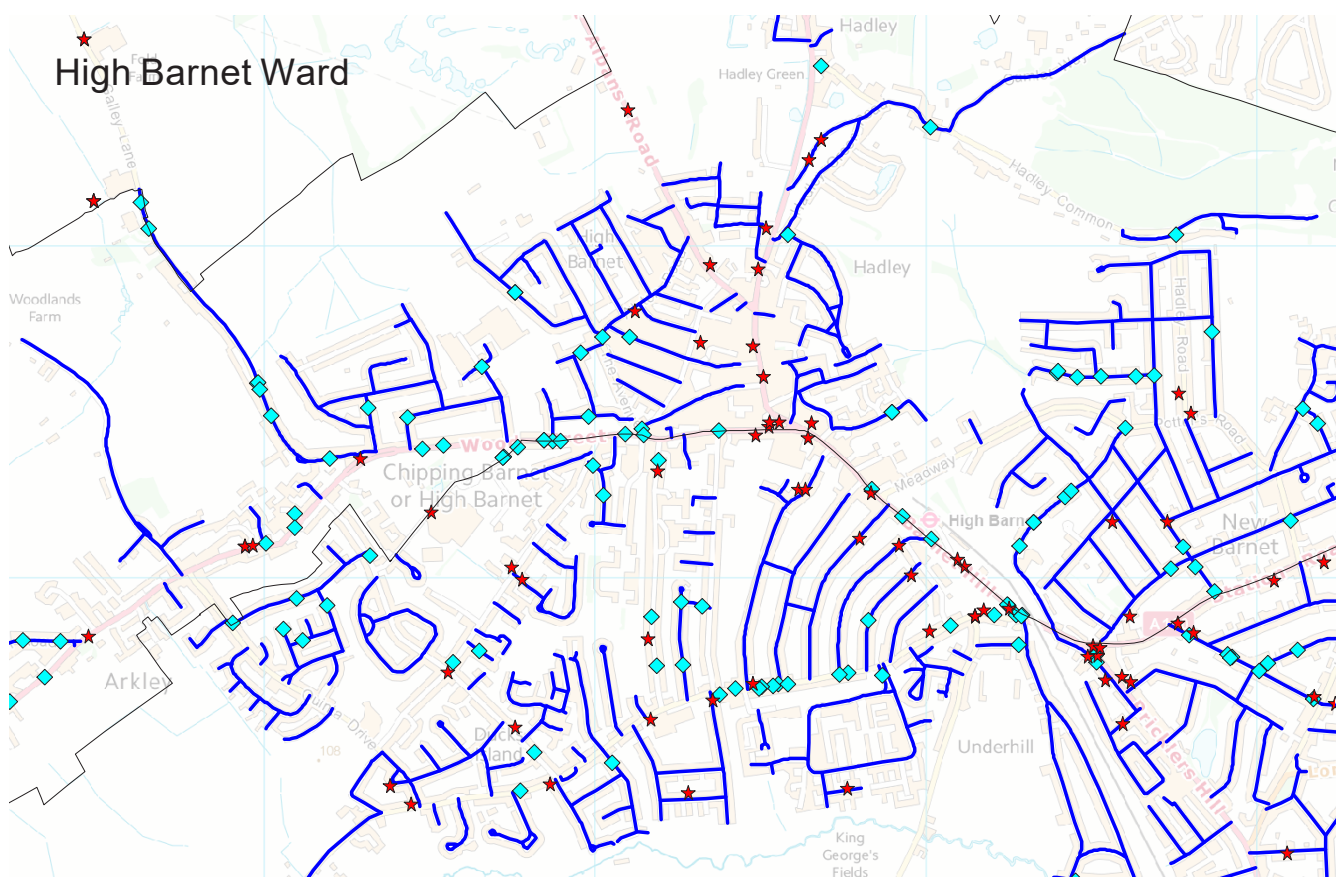
1. Review the whole highway network with regard to an agreed set of factors for which data is available and ascertain a new Operational Network Hierarchy;
2. Use the Inspectors manual assessment to sense check the results;
3. Re-define the frequency of each link in the Barnet road network;
4. Design inspection routes based on the revised frequencies using the MapInfo database to calculate route lengths;
5. Determine other factors, for which data is not available, that have local significance and obtain data sets to strengthen database value.

The progress status of each of the recommendations, as of December 2021, is:

1. An operational network hierarchy database has been produced by application of the methodology set out in this document. The hierarchy has been the subject of discussion between LBB and Re. officers and an LBB commissioned review by Zurich. The review findings were incorporated into Version 2 May 2015 update.
2. The local highway inspectors were used in the preparation of the ONH to capture their local knowledge. In addition following the Zurich review a number of specific analytical data processes have taken place to help sense check the hierarchical assessments. A specific review of school sites and undergrounds stations was undertaken and a specific risk review of the network based on a combination of actual safety defects instructed (to LBB safety policy) and claim incident history. These parts of the network are scheduled for 6 monthly inspections.
3. Completed – each section of the network has been categorised and an appropriate code of practice guidance safety inspection assigned.

Operational Network Hierachy Review

4. Completed. A comprehensive investment has been completed to move the previous paper system inspection routes to an electronic geographical information system (GIS) as part of Re.'s move to introduce mobile working. There are now 5 defined inspection areas.
5. The dynamic risk review process runs a systems report to identify actual personal injury insurance claims and reactive footway defects for a rolling 12-month period. The process is undertaken in May and November each year and is documented in the process flow chart at Appendix M Database Management Plan. The process uses an initial threshold of two or more insurance claims and/or six or more reactive safety defects per km to inform a specific review by the local inspector of the reasons for the incidents. If corrective action cannot be undertaken at that point in time the process will result in a temporary adjustment to the sections' score which may in turn lead to a temporary increase in its inspection frequency to ensure a follow up inspection within 6 months. This is particularly relevant for annually inspected sections which, if affected, will be inspected bi-annually until further notice.



Temporary risk increase analysis of safety defects and claim incidents

Appendix A

Carriageway Hierarchy

Operational Network Hierarchy Review

APPENDIX A

Carriageway Hierarchy

Extract from 2016 Well Managed Highway Infrastructure. A 4.3.11

Carriageway hierarchy will not necessarily be determined by the road classification, but by functionality and scale of use. Table 1 is intended to be used as a reference point from which to develop local hierarchies. The descriptions relate to the most usual circumstances encountered in the UK.

There are likely to be, some very significant variations and authorities should take their own circumstances into account.

Category	Type of Road General Description	Description
Motorway	Limited access - motorway regulations apply	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
Strategic Route	Trunk and some Principal 'A' class roads between Primary Destinations	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited.
Main Distributor	Major Urban Network and Inter-Primary Links. Short - medium distance traffic	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.
Secondary Distributor	B and C class roads and some unclassified urban routes carrying bus, HGV and local traffic with frontage access and frequent junctions	In residential and other built up areas these roads have 20 or 30 mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra crossings. Onstreet parking is generally unrestricted except for safety reasons. In rural areas these roads link the larger villages, bus routes and HGV generators to the Strategic and Main Distributor Network.
Link Road	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions	In urban areas these are residential or industrial interconnecting roads with 20 or 30 mph speed limits, random pedestrian movements and uncontrolled parking. In rural areas these roads link the smaller villages to the distributor roads. They are of varying width and not always capable of carrying two-way traffic.
Local Access Road	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often only single lane width and unsuitable for HGVs. In urban areas they are often residential loop roads or cul-de-sacs.
Minor road	Little used roads serving very limited numbers of properties.	Locally defined roads.

Table 1: Factors to Consider - Carriageways

Appendix B

Footway Hierarchy

Operational Network Hierarchy Review

APPENDIX B

Footway Hierarchy

Extract from 2016 Well Managed Highway Infrastructure. A 4.3.14

Footway hierarchy should be determined by functionality and scale of use. Table 2 is intended to be used as a reference point from which to develop local hierarchies. The detailed descriptions relate to the most usual circumstances encountered in the UK. There are, however, some very significant variations from the norm and authorities should take their own circumstances into account.

Category	Description
Prestige Walking Zones	Very busy areas of towns and cities with high public space and streetscene contribution.
Primary Walking Routes	Busy urban shopping and business areas and main pedestrian routes.
Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc.
Link Footways	Linking local access footways through urban areas and busy rural footways.
Local Access Footways	Footways associated with low usage, short estate roads to the main routes and cul-de-sacs.
Minor Footways	Little used rural footways serving very limited numbers of properties

Table 2: Factors to Consider - Footways

Appendix C

Application of Factor Points

Operational Network Hierarchy Review

APPENDIX C

Application of Factor Points

Factor 1 is the baseline 'foundation' score to which factors 2-8 inclusive are then applied (added or subtracted) to establish the LBB operational hierarchy score.

Factor			Points Awarded
1	Foundation Score	<p>The foundation scores are based on the existing LBB Network classification (see Appendix A).</p> <p>Town Centre Type 2 Strategic Type 3a Main Distributer Type 3b Secondary Distributer Type 4 Link Road Type 4b Minor Access Road</p>	<p>600 500 400 300 200 100</p>
2	Vehicle Flows Adjustment	<p>Where actual traffic flows are available and vary with the traffic flow baseline a graduated points scale is applied.</p> <p>Where no measured traffic flow is available an option is available to accommodate local knowledge:</p> <p>Actual/Perceived AADT >50% of baseline Actual/Perceived AADT >40% of baseline Actual/Perceived AADT >30% of baseline Actual/Perceived AADT >20% of baseline Actual/Perceived AADT >10% of baseline</p> <p>Actual/Perceived AADT <10% of baseline Actual/Perceived AADT <20% of baseline Actual/Perceived AADT <30% of baseline Actual/Perceived AADT <40% of baseline Actual/Perceived AADT <50% of baseline</p>	<p>+100 +80 +60 +40 +20</p> <p>-20 -40 -60 -80 -100</p>
3	Pedestrian Flow Adjustment	<p>The purpose of this factor is to make use of the inspectors' local knowledge in terms of pedestrian flows. The points awarded are variable as the basis for the change is to ensure a 'low' observed flow moves the section into a less frequent inspection regime and an observed 'high' flow moves the section into a more frequent inspection regime.</p>	<p>Varies within a range of +400 to -400</p>
4	Heavy Goods Vehicles (HGV)	<p>Traffic survey guidelines state that HGVs account for approx. 10% of traffic. Significantly higher or lower levels indicate the role and importance of that link in the network to commerce.</p> <p>This factor also reflects the asset wear and tear.</p> <p>Actual HGV traffic >20% of traffic flow Actual HGV traffic < 5% of traffic flow</p>	<p>+50 -50</p>
5	Traffic Sensitive (including Bus Routes)	<p>The NRSWA identifies that a street designated as traffic-sensitive must have one or more of the following criteria:</p> <p>(a) The street is one on which, at any time, the street authority estimates traffic flow to be greater than 500 vehicles per hour, per lane of carriageway, excluding bus or cycle lanes.</p>	

Operational Network Hierarchy Review

APPENDIX C

Factor			Points Awarded
5 (cont)		<p>(b) The street is a single carriageway two-way road, the carriageway of which, is less than 6.5 metres wide, having a total traffic flow in both directions of not less than 600 vehicles per hour.</p> <p>(c) The street falls within a congestion charges area.</p> <p>(d) Traffic flow contains more than 25% heavy commercial vehicles.</p> <p>(e) The street carries more than eight buses an hour.</p> <p>(f) The street is designated for pre-salting, by the street authority as part of its programme of winter maintenance.</p> <p>(g) The street is within 100 metres of a critical signalised junction, gyratory or roundabout system.</p> <p>(h) The street, or that part of a street that, has a pedestrian flow rate in both directions at any time, of at least 1,300 persons per hour, per metre width of footway.</p> <p>(i) The street is on a tourist route or within an area where international, national, or significant major local events take place.</p> <p>For sections of the network (regardless of category) which are designated traffic sensitive</p>	+50
6	Strategic Road Network	<p>This factor adds emphasis and prioritization to operational networks service standards for the strategic integrated transport network which influences the speed and reliability of journey times.</p> <p>Diversionary routes (formally designated in the Network Management Plan (congestion management) and/or the Emergency Plan)</p>	+75
7	Single Settlement and Designated Primary Accesses	<p>The purpose of factor 7 is to recognize the 'no alternatives' (single access) function of a road as access to a settlement or the designation of one principal access road where several options exist.</p> <p>7a Sole access 7b Designated primary access 7c Non primary access</p> <p>This factor applies a refinement in relative importance to localised groups of unclassified routes.</p>	+75 +50 -25
8	Key Public Service (KPS) Accessibility	<p>The purpose of this factor is to recognize the local importance of a route or road in accessing/servicing important community facilities.</p> <p>Additional points to be applied for sections of the network that have localised importance in accessing/servicing:</p> <p>8a Major regional hospital 8b School, college and/or university pedestrian route 8c Overground/underground Station 8d Other significant public service</p> <p>The vicinity of specific locations will be assessed to decide on logical cut off points for application of any KPS factors.</p>	+100 +50 +50 +50
9	Tourist Locations	<p>An adjustment factor to recognise the importance of a route to the local economy, increased seasonal volumes of traffic and public perception of LBB by visitors. Applies to primary tourist destinations based on Tourism Strategy.</p> <p>Recognised tourist route.</p>	+25

Operational Network Hierarchy Review

APPENDIX C

Dynamic Risk Review

Factors 10 and 11 are used for the periodic dynamic risk review based on actual maintenance management system information. The decision making governance is set out in the Management Plan at Appendix M.

10	Reactive Safety Defects	A temporary adjustment factor to recognise sections where 6 or more footway defects have been recorded within a 12 month period.	+50
11	Incident and Claim History	A temporary adjustment factor to recognise sections where 2 or more personal injury claims have been recorded within a 12 month period.	+50

Appendix D

Traffic Capacity of Urban Roads

Operational Network Hierarchy Review

APPENDIX D

Traffic Capacity of Urban Roads

Extracts from DMRB TA79/99

- 1.4 This Advice Note gives the maximum hourly vehicle capacity for various types of Urban Trunk Road. All capacities quoted are for traffic compositions including up to 15% heavy vehicles; corrections are provided for higher proportions.
- 1.9 Urban All-Purpose Road (UAP)
An all-purpose road within a built up area, either a single carriageway with a speed limit of 40 mph or less or a dual carriageway with a speed limit of 60 mph or less.
- 1.10 Capacity
For the purposes of this Advice Note, capacity is defined as the maximum sustainable flow of traffic passing in 1 hour, under favourable road and traffic conditions.

Feature	ROAD TYPE				
	Urban Motorway	Urban All-purpose			
	UM	UAP1	UAP2	UAP3	UAP4
General Description	Through route with grade separated junctions, hardshoulders or hardstrips and motorway restrictions.	High standard single/dual carriageway road carrying predominantly through traffic with limited access	Good standard single/dual carriageway road with frontage access and more than two side roads per km	Variable standard road carrying mixed traffic with frontage access, side roads, bus stops and atgrade pedestrian crossings	Busy high street carrying predominantly local traffic with frontage activity including loading and unloading.
Speed Limit	60mph or less	40 to 60mph for dual and generally 40mph for single carriageway	Generally 40mph	30mph to 40mph	30mph
Side Roads	None	0 to 2 per km	more than 2 per km	more than 2 per km	more than 2 per km
Access to roadside development	None. Grade separated for major only.	Limited access	access to residential properties	Frontage access	Unlimited access to houses, shops & businesses
Parking and Loading	None	Restricted	Restricted	Unrestricted	Unrestricted
Pedestrian Crossing	Grade separated	mostly grade separated	Some at-grade	Some at-grade	Frequent at-grade
Bus stops	None	in lay-bys	at kerbside	at kerbside	at kerbside

*Table 1:
Types of Urban roads and the features that distinguish them*

Operational Network Hierarchy Review

APPENDIX D

3.1 Table 1 sets out the types of Urban Roads and the features that distinguish between them and affect their traffic capacity. Tables 2 & 3 give the flow capacity for each road type described in Table 1.

		Two-way Single Carriageway - Busiest direction flow (Assumes a 60/40 directional split)								Dual Carriageway				
		Total number of Lanes								Number of Lanes in each direction				
		2		2-3	3	3-4	4	4+	2	3	4			
Carriageway width		6.1m	6.75m	7.3m	9.0m	10.0m	12.3m	13.5m	14.6m	18.0m	6.75	7.3m	11.0m	14.6m
Road Type	UM	Not applicable										4000	5600	7200
	UAP1	1020	1320	1590	1860	2010	2550	2800	3050	3300	3350	3600	5200	*
	UAP2	1020	1260	1470	1550	1650	1700	1900	2100	2700	2950	3200	4800	*
	UAP3	900	1110	1300	1530	1620	*	*	*	*	2300	2600	3300	*
	UAP4	750	900	1140	1320	1410	*	*	*	*	*	*	*	*

Table 2:

Table 2 Capacities of Urban Roads - One-way hourly flows in each direction

Notes

1. Capacities are in vehicles per hour.
2. HGV ≤ 15%
3. (*) Capacities are excluded where the road width is not appropriate for the road type and where there are too few examples to give reliable figures.

Operational Network Hierarchy Review

APPENDIX D

Carriageway Width		6.1m	6.75m	7.3m	9.0m	10.0m	11.0m
		2 Lanes			2-3 Lanes		3 Lanes
Road Type	UAP1		2950	3250	3950	4450	4800
	UAP2	1800	2000	2200	2850	3250	3550

*Table 3:
Capacities of Urban One-Way roads, hourly flows*

Notes

1. Capacities are in vehicles per hour.
2. Capacities for one way road types UAP1 at 6.1m width, UAP3 and UAP4 are not shown as there are too few examples to give reliable capacities.
3. Capacities for one-way roads (e.g. UAP2 at 7.3m and 11.0m carriageway widths) are generally less than capacities of dual carriageways in one direction shown in Table 2. The reason is that one-way roads are often of short lengths and form part of a gyratory system between junctions, necessitating high proportion of vehicle weaving and stopping, thereby decreasing the capacities.

Appendix E

Safety Inspection Frequencies

Operational Network Hierarchy Review

APPENDIX E

Code of Practice - Safety Inspection Frequency

The 2016 Code of Practice Well Managed Highway Infrastructure at A 5.7.5* directs a practical and reasonable risk based approach to safety inspection frequencies. A 5.7.6 no longer provides specific time related guidance on frequencies. It advises that frequencies for safety inspections of individual network sections or individual assets should be based upon consideration of a range of factors which include amongst others **category within the network hierarchy, characteristics and trends and incident and inspection history**. The LBB adopted safety inspection frequencies remain unchanged from Version 4 and are as follows:

Footway

DESCRIPTION	FREQUENCY
Prestige Walking Zone	1 month
Primary Walking Route	1 month
Secondary Walking Route	3 months
Link Footways	6 monthly
Local Access Footways	12 months
Minor Footway	12 months

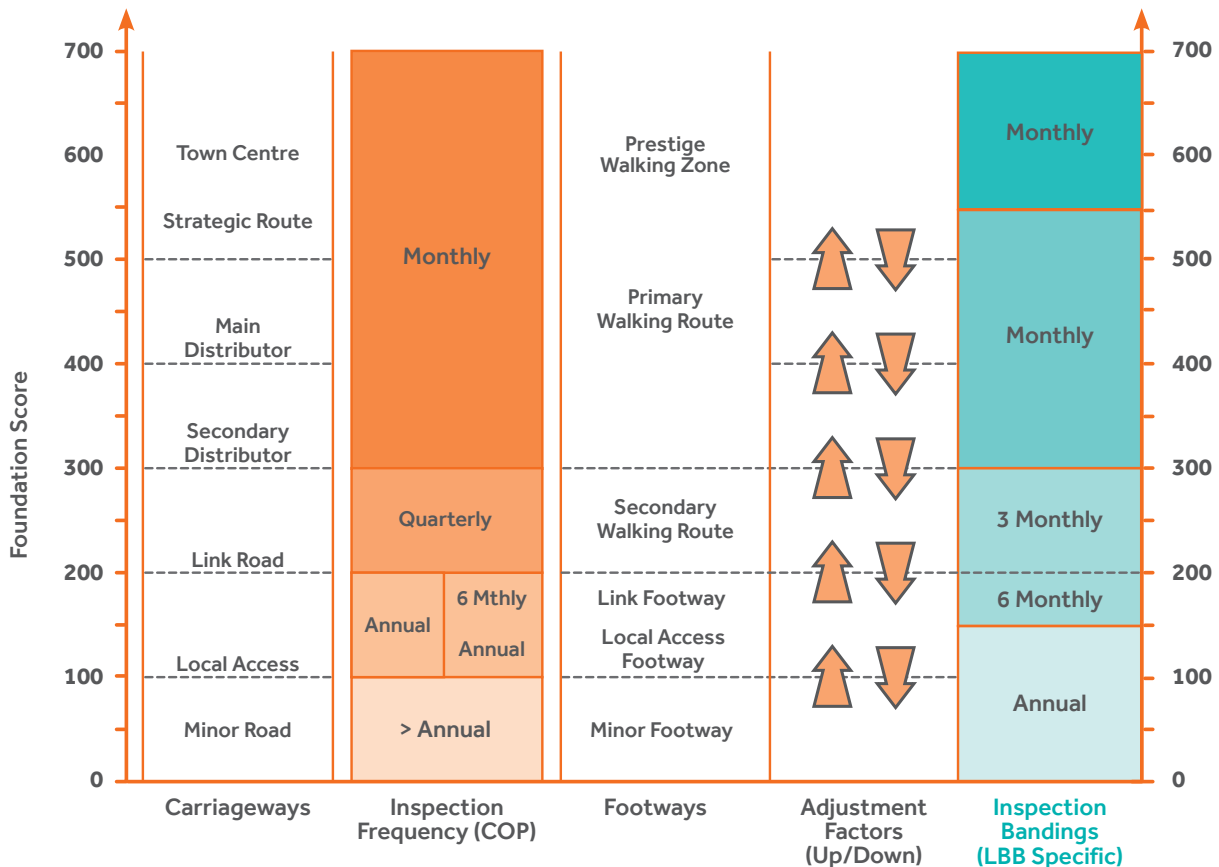
Carriageway

DESCRIPTION	FREQUENCY
Strategic Route	1 month
Main Distributor	1 month
Secondary Distributor	1 month
Link Road	3 months
Local Access	1 year
Minor Footway	12 months

☐ Category not applied to LBB local network

Factor Applied Safety Inspection Threshold

Most frequent interval is applied to adjacent footways and carriageways.



Appendix F

Frequently Asked Questions (FAQs)

Operational Network Hierarchy Review

APPENDIX F

Frequently Asked Questions

"Once a route has been scored will it ever change?"

The approach is a 'live system' that importantly allows the effects of ongoing changes to the network, such as those created by a new large housing development, to be constantly reviewed and the operational hierarchy updated as necessary to accommodate permanent, semi permanent or temporary changes.

"How will I be able to explain that one road is a higher priority?"

The system makes it easy to identify from the database the particular factor, or combination of factors, that has resulted in a section of road being upgraded or downgraded, for instance if the average volume of traffic is 3000 vehicles/hr and the actual is 6000 vehicles.

"What are the benefits of this approach?"

LBB can demonstrate a clear and transparent approach to defining its operational hierarchy resulting in services being prioritized on the basis of need in accordance with best practice Code of Practice guidance.

Appendix G

Strategy and Hierarchy Objectives

Operational Network Hierarchy Review

APPENDIX G

Strategy and Hierarchy Objectives

The 2016 Code of Practice Well Managed Highway Infrastructure provides useful guidance on network hierarchies.

A.4.3.1. A network hierarchy based on asset function is the foundation of a risk-based maintenance strategy. It is crucial in establishing levels of service and to the statutory network management role for developing co-ordination and regulating occupation.

A.4.3.2. It is important that the hierarchy adopted reflects the whole highway network and the needs, priorities and actual use of each infrastructure asset. The carriageway hierarchy, for example, may be determined by traffic volume or by local social and economic importance – perhaps a route leading to a major hospital or industrial area, or urban, rural or busy shopping street, residential street, etc. Hierarchy may also be influenced by factors such as pedestrian or cyclist usage. Collectively, these issues may be referred to as the 'functionality' of the section of highway in question.

In addition A.4.3.8. Hierarchies should be dynamic and regularly reviewed to reflect changes in network characteristics and functionality so that maintenance strategy reflects the current situation, rather than the use expected when the hierarchy was originally defined.

Recommendation 12 – Network Hierarchy

A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

Appendix H

Glossary of Terms/Abbreviations

Operational Network Hierarchy Review

APPENDIX H

Glossary of Terms/Abbreviations

TERM	DESCRIPTION
IDNR	a unique reference for each record generated by the database (not used in scoring calculations)
Route Status	Traffic Regulations categorization eg. 'A', 'B' 'C', unclassified, green lane
COP	Code of Practice (Well Maintained Highways)
USRN	Unique Street Reference Number
SED	Streets with Special Engineering Difficulties

Appendix I

Database Structure

Operational Network Hierarchy Review

APPENDIX I

Database Structure

FIELD NAME	FACTOR REF.	DESCRIPTION/USE IN DATABASE
Uniq_Ref_SectionLA		Unique reference number for the section <i>Not used in scoring calculation.</i>
Ward		Subdivision of the London Borough of Barnet. <i>Not used in scoring calculation.</i>
Extents		Text description of the network section. <i>Not used in scoring calculation.</i>
Road Name		Text description of the network section. <i>Not used in scoring calculation.</i>
Length_m		Length of the network section in metres. <i>Not used in scoring calculation.</i>
No_of_Lanes		Text description of the network section. <i>Not used in scoring calculation.</i>
Speed_Limit		Speed limit on the network section. <i>Not used in scoring calculation.</i>
FW_Local_Hierarchy		Footway Hierarchy. Sections are categorised by LBB condition survey sub contractors based on the Code of Good Practice Maintenance Hierarchy. <i>Not used in scoring calculation.</i>
CW_Local_Hierarchy	1	Carriageway Hierarchy. Sections are categorised by LBB based on the Code of Good Practice Maintenance Hierarchy.
Foundation_Score		This score is derived directly from the route category as per the values set out in Appendix C.
Veh_Flow_Capacity	2	Maximum hourly capacity for the network section based on DMRB TA 79/99.
Veh_Flow_Actual		If traffic survey data, less than five years old is available, actual traffic flows should be recorded.
Veh_Flow_Assumed		Where survey data is unavailable this optional field allows local knowledge and observation of flows to be applied.
Factor_2_VehFlowAdjust		Factor 2 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.
Ped_Flow_Est	3	This field identifies routes where low pedestrian flow is observed by inspectors
Factor_3_PedFlowIAdjust		Factor 3 - points added/deducted based on the application of the scoring guidelines set out in Appedix C
HGV_Flow	4	This field allows adjustment if HGV proportions significantly vary from the assumed 15% of total traffic.
Factor_4_HGV_Adjust		Factor 4 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.

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FIELD NAME	FACTOR REF.	DESCRIPTION/USE IN DATABASE
TrafficSensitive	5	This field identifies routes designated as traffic sensitive (including bus routes) based on NRSWA guidelines.
Factor_5_SensitiveAdjust		Factor 5 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.
Strategic_Route	6	This field identifies routes designated as diversionary routes in the Transport for London Network.
Factor_6_StrategicAdjust		Factor 6 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.
Sole_Access	7	This field identifies routes which are recognised as having 'no alternative'.
Primary_Access		This field identifies routes which are recognised as being the 'principal access'.
Non_Primary_Acc		This field identifies routes where several alternative options exist.
Factor_7_AccessAdjust		Factor 7 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.
KPS_Hospital		This field identifies routes key to accessing major regional hospitals.
KPS_Education		This field identifies routes key to accessing schools, colleges and universities.
KPS_Station		This field identifies routes key to accessing overground/underground stations.
KPS_Other		This field identifies routes key to accessing other significant public services
Factor_8_KPS_Adjust		Factor 8 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.
Tourist_Route	9	This field identifies routes which are recognised as being important for tourists.
Factor_9_TouristAdjust		Factor 9 - points added/deducted based on the application of the scoring guidelines set out in Appendix C.
Change Record		Date and details where required of the last change to the section <i>Not used in scoring calculation.</i>
Adjusted_Score		<p>Operational Network Hierarchy Score</p> <p>This is the aggregated points score for a section of the network following application of the 9 factors.</p> <p>The extent to which this score varies with the foundation score dictates whether the section is upgraded or downgraded.</p>

Operational Network Hierarchy Review

APPENDIX I

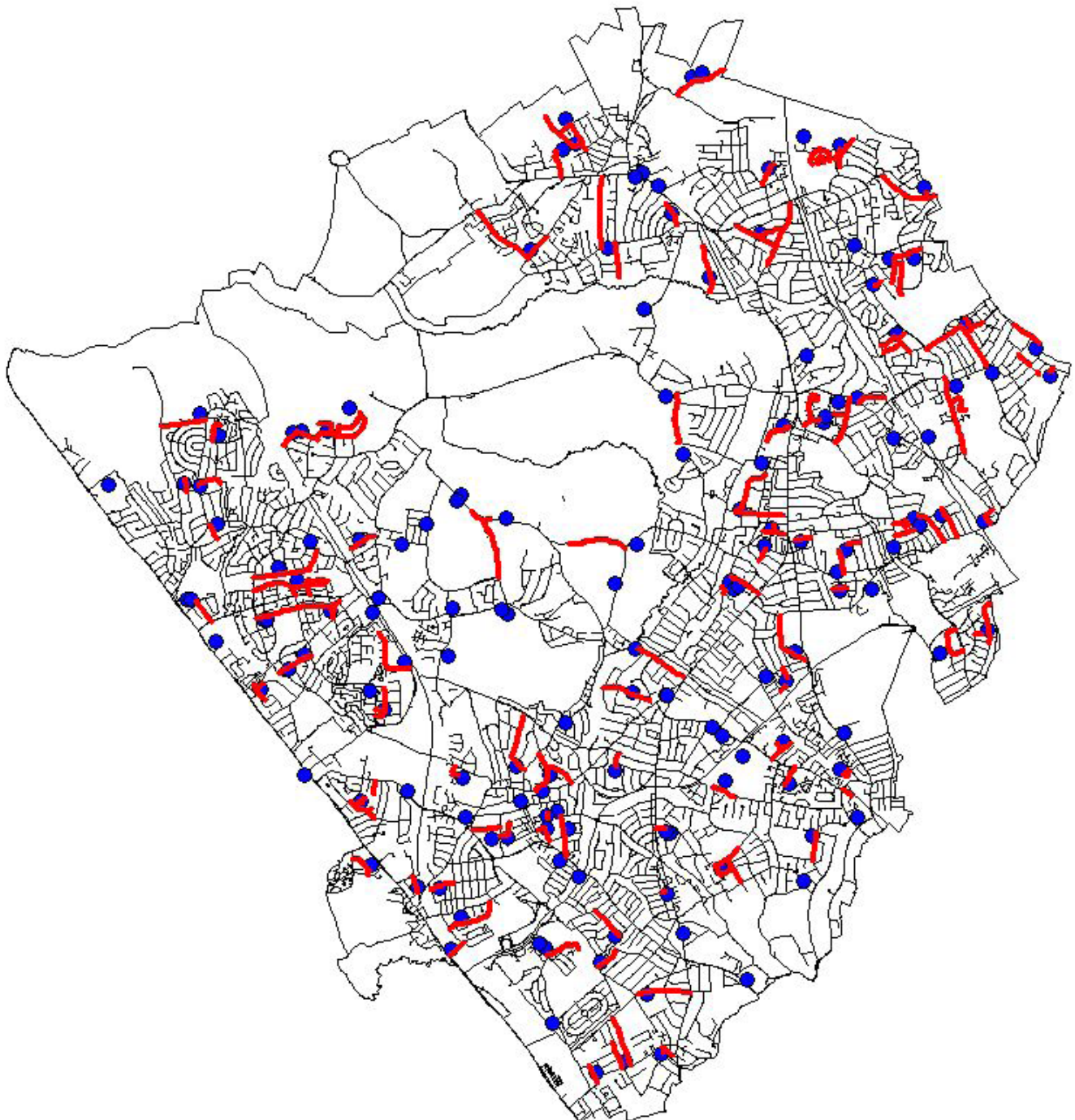
FIELD NAME	FACTOR REF.	DESCRIPTION/USE IN DATABASE
CW_Defects	10	This field identifies the number of reactive safety defects on the carriageway in this section within a 12 month period
FW_Defects		This field identifies the number of reactive safety defects on the footway in this section within a 12 month period
FW_Defects_per_km		This field identifies the number of footway reactive defects per km in an 12 month period.
Factor_10_DefectAdjust		Factor 10 - points temporarily added/deducted based on the application of the scoring guidelines set out in Appendix C
PINJ Claims	11	This field identifies the number of personal injury and claims on this section within a 12 month period
PINJ Claims PerKm		This field identifies the number of personal injury and claims per km on this section within a 12 month period
Factor_11_ClaimAdjust		Factor 11 - points added/deducted based on the application of the scoring guidelines set out in Appendix C
Temp_Adj_Score		<p>Temporary Operational Network Hierarchy Score</p> <p>This is the aggregated points score for a section of the network following application of all 12 factors.</p> <p>The extent to which this score varies with the foundation score dictates whether the section is temporarily upgraded or downgraded.</p>



Appendix J

Schools Affecting Route Inspection Frequencies

Operational Network Hierarchy Review

APPENDIX J



-  Section inspection frequency increase from annual to 6-monthly due to school access routes
-  School location

Operational Network Hierarchy Review

APPENDIX J

Barnet Network route sections with permanently increased inspection frequency resulting from proximity to school site access

Unique Reference	Description	Length (m)
5090U00060/00000	ABBOTS ROAD - EVERSFIELD GARDENS TO ORANGE HILL ROAD	983.67
5090U00160/00005	ABINGDON ROAD - AVONDALE ROAD TO END	83.27
5090U00540/00000	ALBERT STREET - LODGE LANE TO END	43.75
5090U01400/00000	ARMSTRONG CRESCENT - LAWTON ROAD W TO LAWTON ROAD	192.06
5090U02300/00000	BARING ROAD - CASTLEWOOD ROAD TO LAWTON ROAD	176.02
5090U02940/00000	BEDFORD ROAD - WORCESTER CRESCENT TO END	137.21
5090U03260/00005	BELLEVUE ROAD - FRIERN BARNET ROAD TO CRESCENT THE	379.25
5090U03360/00000	BENEDICT WAY - HAMILTON ROAD TO END	89.46
5090U03620/00000	BIGWOOD ROAD - MEADWAY TO NORTHWAY	323.28
5090U03660/00000	BIRKBECK ROAD - NETHER STREET TO HUTTON GROVE	153.96
5090U04040/00000	BOHUN GROVE - RIDGEWAY AVENUE TO WINDSOR DRIVE	98.31
5090U04240/00000	BOW LANE - GRANVILLE ROAD TO SQUIRES LANE	673.54
5090U04560/00002	BRENT PARK ROAD - BRENT PARK ROAD FROM DALLAS ROAD TO EDGEWARE ROAD	219.38
5090U05120/00000	BROADHURST AVENUE - BROADFIELDS AVENUE TO EDGEWARE WAY	281.07
5090U05560/00000	BROOKLAND RISE - MIDHOLM TO BROOKLAND RISE INC RBT	324.04
5090U05660/00000	BROOKSIDE SOUTH - B1453 TO PARKSIDE GARDENS	544.10
5090U05900/00005	BRUNSWICK PARK ROAD - FROM SPENCER TO BRUNSWICK WAY	839.47
5090B1453_/00060	BRUNSWICK PARK ROAD - OSIDGE LANE TO CHURCHILL ROAD	70.95
5090U06140/00000	BURLINGTON RISE - AVONDALE AVENUE TO GALLANTS FARM ROAD	437.58
5090U06460/00005	BYNG ROAD - WENTWORTH ROAD TO END	580.93
5090U06740/00000	CAMLET WAY - HADLEY GREEN ROAD TO BOROUGH BOUNDARY	628.41
5090U07000/00000	CARLISLE PLACE - CARLISLE PLACE FROM A109 TO END	92.83
5090U07180/00000	CASTLEWOOD ROAD - NORTHFIELD ROAD TO FORDHAM ROAD	372.73
5090U07320/00010	CECIL ROAD - CECIL ROAD FROM ARLINGTON ROAD TO END	42.56
5090U07320/00000	CECIL ROAD - OAKDALE TO CHASE WAY	189.92
5090U07540/00000	CENTRAL SQUARE - FROM NORTHWAY TO SOUTHWAY	129.85
5090U07580/00000	CHALGROVE GARDENS - ALLANDALE AVENUE TO END	146.89
5090U07855/00005	CHARLES GROVE - OXFORD AVENUE TO BURLEIGH GARDENS	57.86
5090U08140/00002	CHESTNUT GROVE - DANELAND TO RIDGEWAY AVENUE	246.08
5090U08380/00000	CHILDS WAY - FINCHLEY ROAD TO END	116.97
5090U08940/00000	CHURCH WAY - MOUNT PLEASANT TO BORO BOUNDARY DEFINITIVE FOOTPATH EB15	57.55
5090U09620/00000	CLOVELLY AVENUE - CLOVELLY AVENUE FROM A5150 TO END	160.28
5090U10340/00000	CORNER MEAD - GRAHAME PARK WAY TO FIELD MEAD	684.71
5090U10580/00000	COURTLAND AVENUE - HANKINS LANE TO A1	174.88
5090U10880/00000	CRESCENT ROAD - CRESCENT ROAD FROM GLENTHORNE ROAD TO BETHUNE AVENUE	135.14
5090U39100/00000	CROMER ROAD - POTTERS ROAD TO BOLEYN WAY	264.98
5090U11300/00000	CROSSWAY - CROSSWAY FROM CRESCENT WAY TO END	169.43
5090U35305/00000	DERSINGHAM ROAD - DERSINGHAM ROAD FROM A407 TO PURLEY AVENUE	320.57
5090U12620/00005	DICKENS AVENUE - SQUIRES LANE TO END AT BLDG NO 39	137.68
5090U12820/00020	DOLLIS PARK - No2 TO END	605.47
5090U12960/00000	DOWNAGE - A1 TO B552	709.31
5090U13165/00000	DRYFIELD ROAD - DRYFIELD ROAD FROM DEANSBROOK ROAD TO BANSTOCK ROAD	558.95
5090U13280/00000	DUNSTAN ROAD - DUNSTAN ROAD FROM FINCHLEY ROAD TO VALE THE	610.56
5090U00700/00012	ESSEX PARK - WENTWORTH AVENUE TO NETHER STREET	94.08
5090U16080/00000	FLIGHT APPROACH - FOOTPATH THROUGH LANACRE AVENUE TO BDLG NO.1 TO 6	422.32
5090U16960/00000	FURTHER ACRE - FURTHER ACRE FROM LANACRE AVENUE TO END	78.97
5090U44813/00000	GASKARTH ROAD - PLAYFIELD ROAD TO WATLING AVENUE	231.45
5090U17525/00000	GEORGE CRESCENT - GEORGE CRESCENT FROM COLNEY HATCH LANE TO COLNEY HATCH LANE	486.48
5090U17905/00000	GLENTHORNE ROAD - FRIERN BARNET ROAD TO CRESCENT ROAD	307.88
5090U18000/00005	GLOUCESTER ROAD - LYONSDOWN ROAD TO STATION ROAD	520.90
5090U18040/00000	GOLD HILL - GOLD HILL FROM DEANSBROOK ROAD TO THE MEADS	107.22
5090U29240/00005	GOLD HILL - GOLD HILL FROM THE MEADS SOUTH TO THE MEADS NORTH	46.13
5090U18040/00002	GOLD HILL - GOLD HILL FROM THE MEADS TO END	36.16
5090U18100/00002	GOLDBEATERS GROVE - ABBOTTS ROAD TO END	92.70
5090U18100/00005	GOLDBEATERS GROVE - WATLING AVENUE TO GOLDBEATERS GROVE	97.08
5090U18240/00002	GOLDERS RISE - CREST THE TO APPROACH THE	165.52
5090U29760/00005	GOODWYN AVENUE - MILLWAY TO CLARENCE COURT	312.85
5090U18560/00000	GRANGE AVENUE - GRANGE AVENUE FROM GALLANTS FARM ROAD TO BURLINGTON RISE	231.19
5090U26940/00000	GRASVENOR AVENUE - WESTERN WAY TO FAIRFIELD WAY	557.86
5090U19220/00000	GREEN LANE - BRENT STREET TO BELL LANE	463.34
5090U19340/00000	GREENFIELD GARDENS - GREENFIELD GARDENS FROM VALE THE TO A407	605.39

Operational Network Hierarchy Review

APPENDIX J

Unique Reference	Description	Length (m)
5090U09060/00002	HALE DRIVE FROM DEANS LANE TO HALE LANE	891.82
5090U20500/00005	HAMILTON ROAD - BRACKENBURY ROAD TO EAST END ROAD	272.70
5090U20820/00000	HANKINS LANE - FROM WORCESTER CRESCENT TO BARNET WAY	286.09
5090U21080/00000	HARTLAND DRIVE - BROADFIELDS AVE TO EDGEWAREBURY LANE	527.49
5090U31120/00000	HATCHCROFT - NEWARK WAY TO END	51.05
5090U21280/00005	HATLEY CLOSE - B550 TO HATLEY CLOSE T	240.43
5090U21280/00000	HATLEY CLOSE - S END TO END	20.59
5090U21460/00000	HEATH VIEW - PARK FARM CLOSE TO HEATH VIEW CLOSE	246.87
5090U21540/00000	HEATHER WALK - HEATHER WALK FROM A5100 TO PENSHURST GARDENS	188.12
5090U21700/00000	HEMING ROAD - HEMING ROAD FROM DEANSBROOK ROAD TO END	291.23
5090U21720/00000	HEMINGTON AVENUE - B550 TO END	229.67
5090U43880/00005	HENDON AVENUE - DOLLIS AVENUE TO VILLAGE ROAD	575.84
5090U22500/00004	HIGH STREET - B552 TO START OF SPLITTER ISLAND	38.98
5090U22500/00002	HIGH STREET - END OF SPLITTER ISLAND TO B552	23.39
5090U22500/00000	HIGH STREET - START OF SPLITTER ISLAND TO B552	223.32
5090U23020/00000	HILLSIDE GARDENS - WOOD STREET TO MAYS LANE	819.79
5090U23140/00000	HILTON AVENUE - HILTON AVENUE FROM WOODHOUSE ROAD TO END	271.75
5090U24540/00000	HYDE CRESCENT - FOOTPATH BLG NO 54 TO OPP 10A	313.09
5090U25520/00000	KNOLL DRIVE - MONKFRITH WAY TO END	150.63
5090U43860/00000	LEESIDE - MAYS LANE TO END AT BLDG NO 62	401.31
5090U27100/00010	LITTLEGROVE - BROOKSIDE TO ST MARYS SCHOOL	84.54
5090U27400/00005	LORING ROAD - MYDDELTON PARK TO ORCHARD AVENUE	144.64
5090U27820/00015	LYONSDOWN ROAD - FROM RICHMOND TO WARD BOUNDARY	60.32
5090U27820/00025	LYONSDOWN ROAD - FROM SOMERSET ROAD TO STATION ROAD	213.63
5090U27820/00020	LYONSDOWN ROAD - FROM WARD BOUNDARY TO SOMERSET ROAD	59.52
5090U27820/00000	LYONSDOWN ROAD - RICHMOND ROAD TO LYTTON ROAD	443.90
5090U28450/00000	MARBLE DRIVE - MARBLE DRIVE FROM CLAREMONT ROAD TO END	471.59
5090U29600/00004	MILESPIT HILL - WISE LANE TO HIGH STREET	692.09
5090U29900/00015	MONKFRITH WAY - OAKWAY TO BROOKSIDE SOUTH	223.30
5090U29980/00000	MONTAGU ROAD - AUDLEY ROAD TO ALGERNON ROAD	287.92
5090U30260/00000	MOSS HALL GROVE - A598 TO NETHER STREET	383.47
5090U25785/00002	MOUNT PLEASANT - MOUNT PLEASANT RBT TO BOROUGH BOUNDARY	709.25
5090U30500/00005	MOWBRAY ROAD - EDGEWARE LANE TO MOWBRAY ROAD	156.54
5090U34540/00000	MYDDELTON PARK - A109 TO B550	554.54
5090U31100/00000	NEW WAY ROAD - NEW WAY ROAD FROM HILLFIELD AVENUE TO END	360.76
5090U31120/00002	NEWARK WAY - GREYHOUND HILL TO NEWARK WAY	98.72
5090U31120/00004	NEWARK WAY - NEWARK WAY TO NEWARK WAY	37.09
5090U31400/00002	NORRICE LEA - LINDEN LEA TO LYTTELTON ROAD	344.51
5090U31880/00002	NORTHWAY - THORNTON WAY TO NORTH SQUARE	348.51
5090U05900/00004	NURSERYMANS ROAD - BRUNSWICK PARK ROAD TO END	357.98
5090U33840/00002	PARKSIDE GARDENS - BROOKSIDE SOUTH TO CHURCH HILL ROAD	483.14
5090U33960/00000	PARTINGDALE LANE - READING WAY TO PARTINGDALE LANE NEAR PARTINGDALE LODGE	695.12
5090U09720/00020	PERCY ROAD - No1 TO BUILDING NO 59	243.08
5090U34580/00000	POOLSFORD ROAD - POOLSFORD ROAD FROM NEW WAY ROAD TO END	153.11
5090U34580/00005	POOLSFORD ROAD - POOLSFORD ROAD FROM POOLSFORD ROAD NE TO POOLSFORD ROAD	71.06
5090U34680/00020	PORTSDOWN AVENUE - PORTSDOWN AVENUE FROM FINCHLEY ROAD TO TEMPLARS AVENUE	48.10
5090U35140/00000	PROSPECT RING - MARKET PLACE TO PROSPECT RING	178.57
5090U35200/00000	PROTHERO GARDENS - A41 TO END	316.40
5090U35580/00000	QUEENS ROAD - QUEENS ROAD FROM SQUIRES LANE TO END	258.23
5090U35700/00010	QUINTA DRIVE - AITKEN ROAD TO GARTHLAND DRIVE	249.60
5090U35700/00000	QUINTA DRIVE - GARTHLAND DRIVE TO BARNET ROAD	207.70
5090U37760/00000	QUINTA DRIVE - GREENLAND ROAD TO AITKEN ROAD	353.10
5090U35760/00000	RALEIGH CLOSE - RALEIGH CLOSE FROM WYKEHAM ROAD TO RALEIGH CLOSE INC TURN	267.81
5090U02940/00002	RAMILLIES ROAD - BEDFORD ROAD TO WORCESTER CRESCENT	322.01
5090U36380/00000	REGINA CLOSE - QUEENS ROAD TO END	79.03
5090U36500/00010	RICHMOND ROAD - RICHMOND ROAD FROM LYONSDOWN ROAD TO GLOUCESTER ROAD	307.04
5090U36560/00030	RIDGE ROAD - FROM THE BUNGALOW TO A407	170.89
5090U36560/00010	RIDGE ROAD - RIDGE ROAD FROM RIDGE ROAD TO END	44.48
5090U36720/00005	RIDGEWAY AVENUE - BOHUN GROVE TO END	378.35
5090U32580/00002	RUSSELL ROAD - RUSSELL ROAD FROM SIMMONS WAY TO OAKLEIGH ROAD NORTH	314.47
5090U39600/00004	SILKSTREAM ROAD - BARNFIELD ROAD TO GASKARTH ROAD	99.66
5090U40180/00015	SOUTHWAY - BIGWOOD ROAD TO CENTRAL SQUARE	160.62
5090U38300/00000	ST MARYS ROAD - CHURCH HILL ROAD ACCESS ROAD TO BURLINGTON RISE	89.26
5090U40580/00020	STANHOPE ROAD - FROM COLLEGE TO GROVE ROAD	186.33

Operational Network Hierarchy Review

APPENDIX J

Unique Reference	Description	Length (m)
5090U40660/00000	STANLEY ROAD - STANLEY ROAD FROM PEMBROKE ROAD TO END	84.80
5090U07102/00002	STRATFORD ROAD - BELL LANE TO END	66.56
5090U26245/00006	STURGESS AVENUE - STURGESS AVENUE FROM PARK ROAD TO DALLAS ROAD	638.19
5090U41840/00002	SWAN LANE - No19 TO SW END	300.99
5090U12900/00008	SWEETS WAY - B550 TO END	563.81
5090U41860/00050	SWEETS WAY - SWEETS WAY 1ST RIGHT SPUR	43.77
5090U41860/00045	SWEETS WAY - SWEETS WAY FROM GREENSIDE CLOSE TO END	55.02
5090U41940/00015	SYDNEY ROAD - SYDNEY ROAD FROM ALEXANDRA ROAD TO ROMAN ROAD	496.23
5090U42150/00000	TAYSIDE DRIVE - GLENGALL ROAD TO END	262.06
5090U42420/00000	TENTERDEN GARDENS - A504 TO TENTERDEN GROVE	357.14
5090U42440/00000	TENTERDEN GROVE - B552 TO A504	514.03
5090U01940/00000	THE AVENUE N11- CARLISLE PLACE TO FRIERN BARNET ROAD	116.40
5090U07220/00000	THE CAUSEWAY - EAST END ROAD TO END	123.28
5090U10960/00010	THE CREST - CREST COTTAGE TO GOLDERS RISE	67.84
5090U13140/00000	THE DRIVE - DRIVE THE FROM WOODSTOCK AVENUE TO HIGHFIELD AVENUE	416.59
5090U15240/00000	THE FAIRWAY - FROM BARNET WAY TO ELLESMERE AVENUE	455.37
5090U13165/00006	THE MEADS - MEADS THE FROM BENNINGHOLME ROAD TO DRYFIELD ROAD	420.30
5090U29240/00007	THE MEADS - MEADS THE FROM GOLDBEATERS GROVE TO END	263.59
5090U42540/00005	THIRLEBY ROAD - MONTROSE AVENUE TO GERVASE ROAD	432.30
5090U42700/00002	THORVERTON ROAD - THORVERTON ROAD FROM SOMERTON ROAD TO A407	226.10
5090U43060/00000	TOTTERIDGE GREEN - TOTTERIDGE VILLAGE TO END	595.53
5090U33100/00000	U07920 - FOOTPATH FRONTING CHASE SIDE NO125 TO 209	86.80
5090U07920/00005	U07920 - FOOTPATH FRONTING CHASE SIDE NO125 TO 209	177.04
5090U07920/00025	U07920 - FOOTPATH FRONTING CHASE SIDE NO125 TO 209	99.85
5090U43800/00000	VALE DRIVE - MAYS LANE TO MILTON AVENUE	298.90
5090U44580/00000	WARNHAM ROAD - WARNHAM ROAD FROM LEWES ROAD TO END	164.48
5090U45160/00000	WENTWORTH ROAD - FROM THE AVENUE TO BYNG ROAD	520.73
5090U45200/00000	WESSEX GARDENS - WESSEX GARDENS FROM RIDGEWAY THE TO A41(T)	291.65
5090U22140/00002	WESTBROOK CRESCENT - LAWTON ROAD TO LAWTON ROAD E	418.97
5090U46140/00002	WHITINGS ROAD - QUINTA DRIVE TO TRINDER ROAD	320.69
5090U46220/00005	WILBERFORCE ROAD - HERBERT ROAD TO GARRICK ROAD	206.35
5090U46700/00000	WINDSOR DRIVE - RIDGEWAY AVENUE TO ETON AVENUE	382.37
5090U47140/00005	WOODFIELD AVENUE - WOODFIELD AVENUE FROM NEW WAY ROAD TO END	59.06
5090U47380/00000	WOODSIDE GRANGE ROAD - WOODSIDE AVENUE TO WOODSIDE PARK ROAD	592.43
5090U47440/00005	WOODSIDE PARK ROAD - A1000 TO GAINSBOROUGH ROAD	122.69
5090U47440/00010	WOODSIDE PARK ROAD - GAINSBOROUGH ROAD TO END	266.52
5090U47440/00021	WOODSIDE PARK ROAD - No1 TO GAINSBOROUGH ROAD	172.07
5090U47640/00000	WORCESTER CRESCENT - HANKINS LANE TO END	581.76

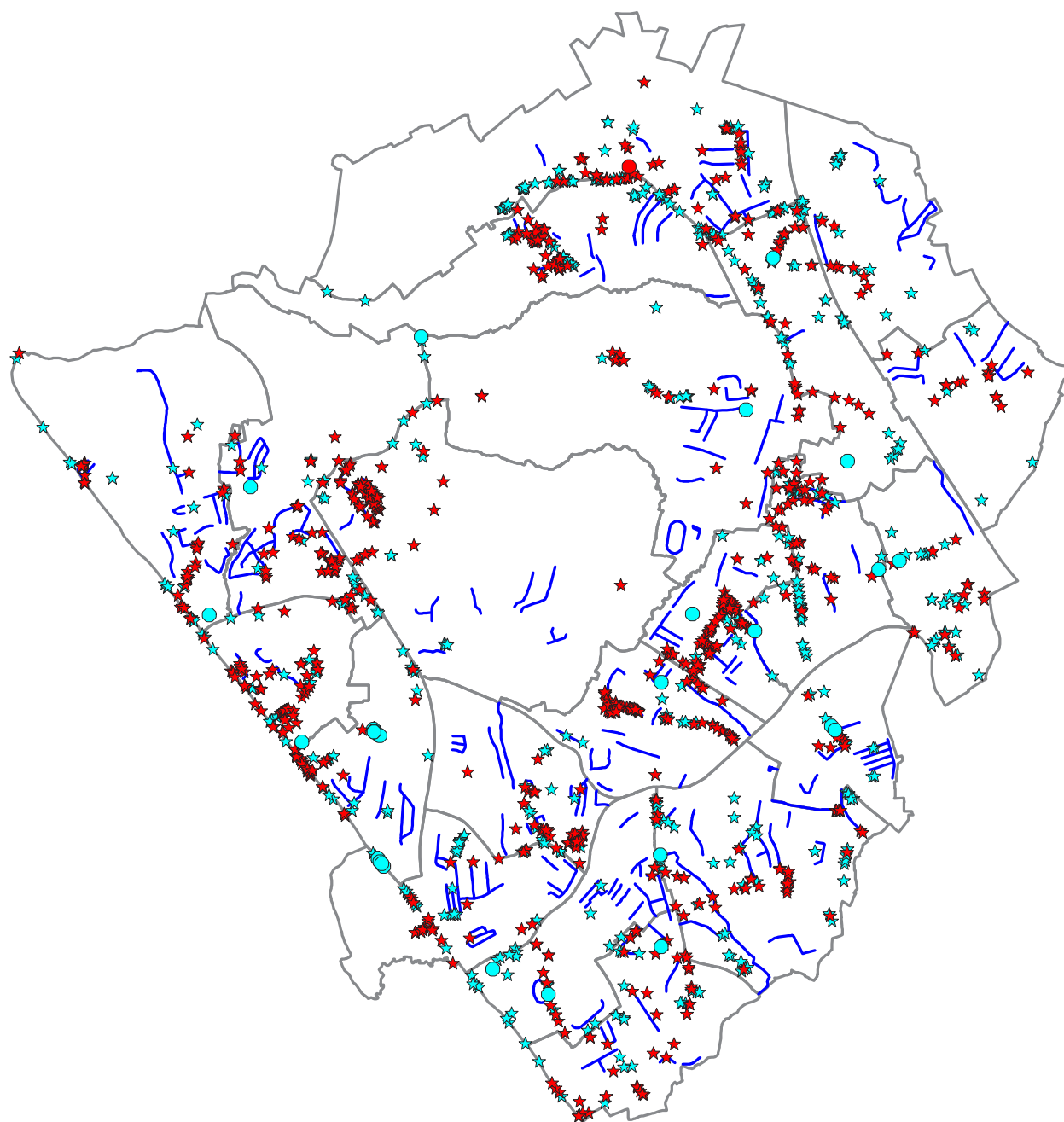
Appendix K

Defect and Claim History Risk Review

February 2021

Operational Network Hierarchy Review

APPENDIX K



- Personal Injury Claims February 2021
- Property Damage Claims February 2021
- ★ Footway Defects February 2021
- ★ Carriageway Defects February 2021
- Annually inspected sections with 6+ Footway Defects and/or 2+ Personal Injury Claims being recorded between April 2020 and March 2021
- Barnet ward boundaries

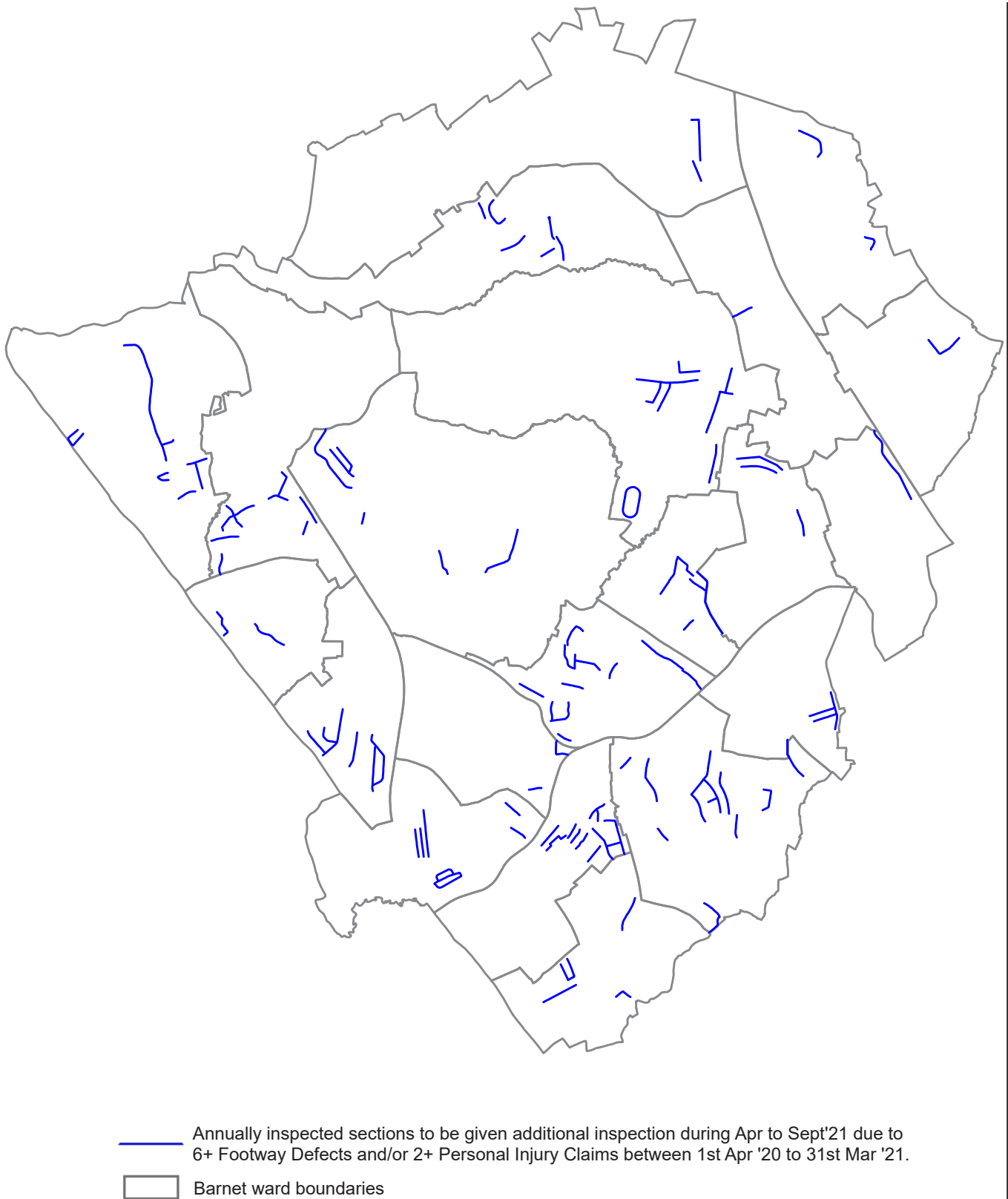
Appendix L

Local Access Road with
Temporary Enhanced Risk

April to September 2021

Operational Network Hierarchy Review

APPENDIX L



Appendix M

ONH Data Management Plan

Operational Network Hierarchy Review

APPENDIX M

Appendix M: Database Management Plan

Project Manager: Mark Rees-Williams (on behalf of Andrew Gudge)
t: 07825 937474 **e:** mark.rees-williams@capita.co.uk

Database Manager: Saqib Amin
e: Saqib.Amin@Barnet.gov.uk

Database software: Mapinfo Professional 12.0

Database filename: BarnetNetwork August 2021

Database structure: as detailed in Appendix I

Password protected: Yes (Database Manager)

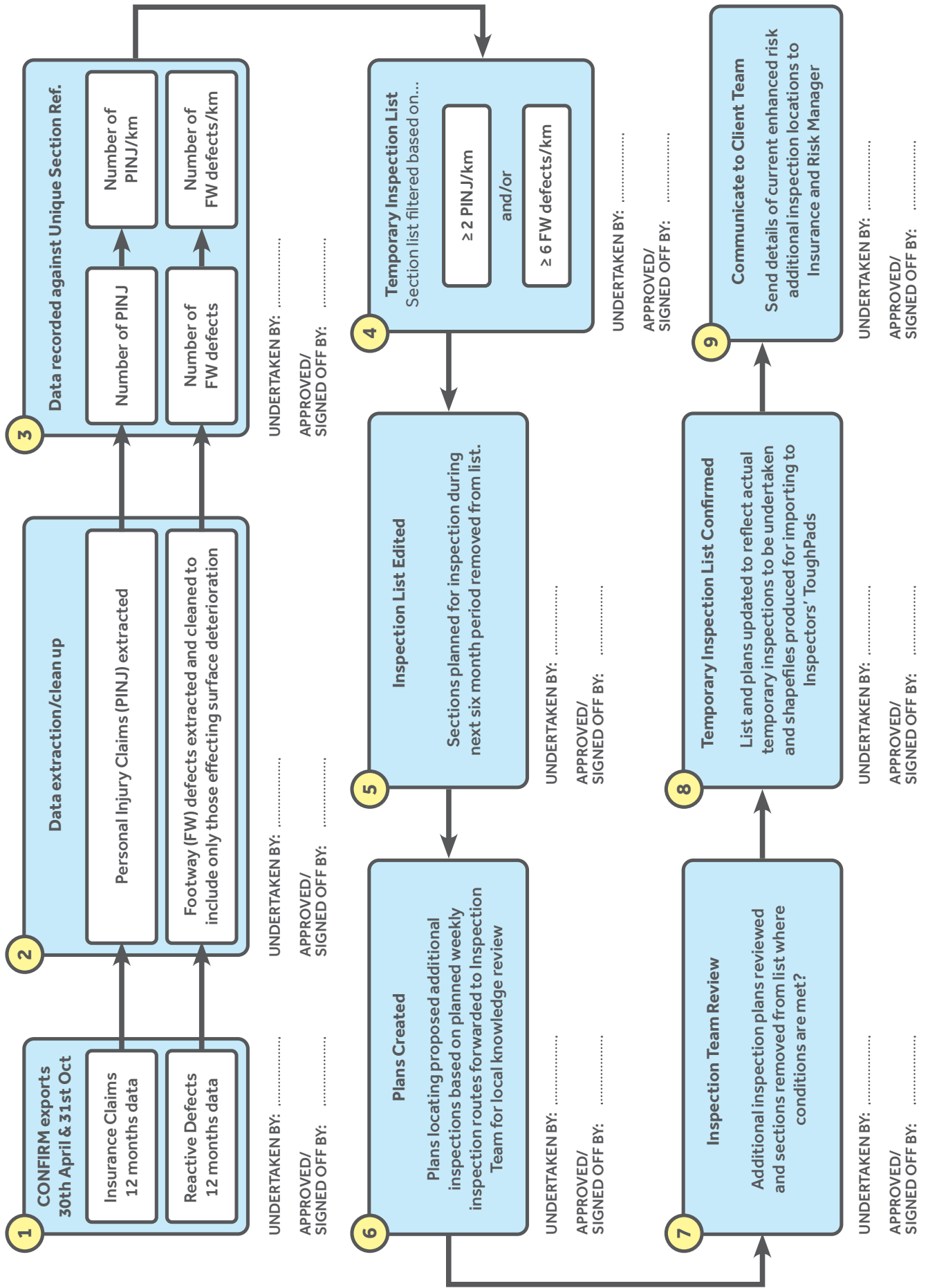
Database backup: In place - monthly

Map Management: OS Mastermaps © London Borough of Barnet, 2021

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Dynamic Assessment Flow Chart



Operational Network Hierarchy Review

APPENDIX M

Data Set Management and Update Protocols

REF	DATASET	DATA SOURCE	UPDATE FREQUENCY	SUPPLIED TO/FILE FORMAT
1	Planned Maintenance, Carriageway Resurfacing, Start/end dates, Variations.	Re. Programmer	Monthly - nearest working day to end of month	Carriageway and Footway Shapefile
2	Planned Maintenance, Surface Dressing, Start/end dates, Variations.	Re. Programmer	Monthly - nearest working day to end of month	Carriageway and Footway Shapefile
3	Planned Maintenance, Microasphalt, Start/end dates, Variations.	Re. Programmer	Monthly - nearest working day to end of month	Carriageway and Footway Shapefile
4	Planned Maintenance, Footways, Start/end dates, Variations.	Re. Programmer	Monthly - nearest working day to end of month	Carriageway and Footway Shapefile
5	Reactive maintenance instructed safety defects	Stuart Renouf	Six monthly (Apr & Oct)	Database Mgr/ database file format
6	Incident/Claims History	Pedro Shaw & Patrick Gormley	6 monthly - mid April and mid October	Database Mgr/ database file format
7	Schools	Via Rob Marchand	Annual - January - new, closures, entrance reconfiguration	Database Manager
8	Main line and Underground stations	Not used. Original assessment applies. New stations to be assessed as necessary		
9	New Adopted Highways & changes to Network Sections/Street Gazetteer	Stuart Renouf	Annual in March	Database Manager/ Shapefile

Operational Network Hierarchy Review

APPENDIX M

Controlled Reports/Information/Links from Database

REF	DATASET	DATA SOURCE	UPDATE FREQUENCY	SUPPLIED TO/FILE FORMAT/REPORT NAME
A	GIS Plan - Planned Maintenance schemes in month	Database Manager	Monthly	Andrew Gudge
B	Safety defect reactive maintenance plot	Database Manager	Monthly	Andrew Gudge
C	Website link – planned maintenance sites	Database Manager	Live link	TBC
D	Site extent/location plans (e attached to worktickets)	Database Manager	Commencement of year plus as built final review	TBC
E	Scheduled Safety Inspection Routes	Database Manager	Annual Review	Andrew Gudge/ Rob Marchand
F	Precautionary Salting Winter Maintenance treatment routes	Database Manager	Annual Review	Andrew Gudge/ Rob Marchand

Appendix N
Schedule of Changes
(DRAFT under preparation)

Operational Network Hierarchy Review

APPENDIX N

Appendix N: Schedule of Changes

Version 5 updates (September 2018)

The following updates have been made to the Version 4:

- 2.2 Adjustments to acknowledge the publication of the latest 2016 Well-Managed Highway Infrastructure: A Code of Practice
- 3. Network Review and Monitoring. Section updated to confirm the dynamic assessment review process undertaken 6 monthly.
- 5. Role of Operational Hierarchy on Insurance Claims. Section updated to document the dynamic assessment review process and reference the process decision making flow chart.
- 6. Recommendations. Point 5 updated in line with other updates on the dynamic assessment.
- Appendix A Carriageway Hierarchy. Existing table replaced with the equivalent table from the 2016 COP (Well-Managed Highway Infrastructure) A.4.3 Functional Hierarchy/A4.3.11 Table 1 - Factors to Consider – Carriageways. No impact on ONH. - minor changes only – COP has added a lower category 'Minor Road'. Category numbers no longer apply.
- Appendix B Footway Hierarchy. Existing table replaced with the equivalent table from the 2016 COP (Well Managed Highway Infrastructure) A.4.3 Functional Hierarchy/A4.3.14 Table 2 - Factors to Consider- Footways. No impact on COP - minor changes only - COP has added a lower category 'Minor Footways'. Category numbers no longer apply.
- Appendix C page 16. Minor text adjustments to emphasise that factors 10 and 11 are the dynamic risk assessment factors.
- Appendix E Safety Inspection Frequencies. A range of adjustments made to align with the minor changes to the 2016 COP carriageway and footway types. The latest 2016 COP no longer includes specific guidance for the frequency of safety inspections as was previously the case. Current LBB/Re. inspection frequencies have been retained unchanged.
- Appendix G. Strategy and Hierarchy Objectives. Updated to reflect the new 2016 Well-managed Highway Infrastructure: A Code of Practice. Replaced with key extracts from the COP - A4.3.1, A4.3.2, A4.3.8 (hierarchies should be dynamic), A 4.3.9 plus Recommendation 12 Network Hierarchy.
- Appendix K. Defect and Claim History Risk Review. Updated to September 2018. Existing map representation of data replaced with latest information.
- Appendix L. Local Access Roads with Temporary Enhanced Risk @ September 2018. Existing map representation of data replaced with latest information.
- Appendix M. Database Management Plan. Updated to include the process flow chart for the periodic dynamic risk assessment. New flow chart added.
- Appendix N. Schedule of Changes. Version 5 updates.

Operational Network Hierarchy Review

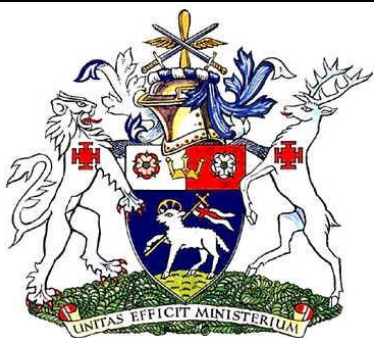
APPENDIX N

Version 6 updates (December 2021)

- Document Control/Issue: updated to reflect latest V6 December 2021
- Miscellaneous text changes to reflect new personnel and edits to names and change from Bentley EXOR to CONFIRM. No significant changes undertaken.
- Appendix E. Format change to table of COP network categories to highlight categories not used on LBB network. Graphic amended to correct incorrect frequency against footways.
- Appendix K. Defect and Claim History Risk Review. Updated to latest 2021. Existing map representation of data replaced with latest information.
- Appendix L. Local Access Roads with Temporary Enhanced Risk @ December 2021. Existing map representation of data replaced with latest information.
- Appendix M. Database Management Plan. Minor edits to named people and software/datasets
- Appendix N. Schedule of Changes. Version 6 December 2021 updates.

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Environment Committee

8 March 2022

Title	Flood and Water Management
Report of	Chairman of the Environment Committee
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	<i>Appendix 1 - Barnet Highways drainage and flood asset summary</i> <i>Appendix 2 - London Borough of Barnet Flood and Drainage Strategies and Plans</i> <i>Appendix 3 - Thames Water Flooding issues status report</i>
Officer Contact Details	Geoff Mee, Executive Director, Environment Geoff.Mee@barnet.gov.uk

Summary

The London Borough of Barnet is designated as a Lead Local Flood Authority (LLFA) and as such has statutory responsibility for leading the coordination of local flood risk management within the borough. This responsibility includes ensuring that flood risks from local sources, including surface water runoff, ground water and ordinary watercourses and their interaction are identified and managed.

This report presents a summary of the current flood risk and drainage management activities being undertaken in the borough including details of supporting legislation. In addition, the report defines roles and responsibilities and the associated challenges faced by the Council in discharging its duties as a Lead Local Flood Authority (LLFA) and Risk Management Authority (RMA).

Officer's Recommendations

1. That the Committee notes the background with regard to flooding and drainage issues within the Borough and the action plan being delivered in line with the Councils Flood Risk Management Plan Measures (2021-27)

1. WHY THIS REPORT IS NEEDED

- 1.1 As a LLFA the Council has statutory responsibility for leading the coordination of local flood risk management within the borough. This responsibility includes ensuring that flood risks from local sources, including surface water runoff, ground water and ordinary watercourses and their interaction are identified and managed.
- 1.2 Barnet has a huge network of aging flooding and drainage infrastructure assets including, trash screens, gullies, gully connection pipes which are a key challenge where they are not operating as their original intended usage. A summary of Barnet's flooding and drainage infrastructure is summarised in Appendix 1.
- 1.3 Across the borough we have experienced flooding incidents, the most recent in July 2021, a surface water flooding event, predicted to be one of the worst storms experienced by the borough having a 1 in 50-year return period (2% probability in any year). The impacts of climate change were evident in this record-breaking rainfall event which impacted mainly the north-eastern part of the borough. Climate change is predicted to result in more **frequent** and **extreme** storm events and, and consequently the increased risk of flooding.
- 1.4 The expectation from the Council for delivering the **third highest national housing targets (and highest in west London Boroughs)** is putting increased pressure and is further expected to exacerbate the flood risk due to rapid urbanization, unprecedented population growth, aging infrastructure, and evident impacts of climate change. It is crucial that the Council aims to protect the undeveloped functional floodplains (Flood Zone 3b) or restore developed Flood Zone 3b where being redeveloped and practically possible, and that all new developments/redevelopments proposals include a robust surface water drainage strategy, promoting and implementing sustainable urban drainage solutions in line with the Councils emerging Sustainability Strategy.
- 1.5 Urban areas within the borough suffer from multiple risks of flooding from the river, surface water, sewer surcharges (both surface and foul) and water quality issues (for example from foul overflows, hydrocarbons from road runoff etc.). Historically, the rivers would have meandered naturally, however, due to increased urbanisation, the watercourses have been **culverted**, increased surface water outfalls in the river and **misconnections** in the surface/foul pipe network have been introduced-there is a complex picture of existing flood risk in the borough.

2. REASONS FOR RECOMMENDATIONS

2.1 LEGISLATIVE FRAMEWORK

The Council operates within a legislative framework as summarised below:

- **Flood and Water Management Act (2010)** - creates clearer responsibilities for flood risk management. It creates the role of **Lead Local Flood Authority (LLFA)** with responsibility to manage local flood risk in the borough from surface water, ordinary watercourses¹ and groundwater. This act is being enacted in stages in line with the London Borough of Barnet Local Flood Risk Management Strategy October 2017.
- **Flood Risk Regulations (2009)** - include the requirement on the Environment Agency and LLFA's to cooperate on the development of Flood Hazard and Flood Risk Maps, Preliminary Flood Risk Assessments (PFRA) and Flood Risk Management Plans (FRMPs).
- **Land Drainage Act 1991**- functions of LLFA's in relation to land drainage, in particular:
 - Section 23 - the Council is responsible for consenting works that propose any changes to the ordinary watercourse and alter or obstruct the flow in the watercourse. Enforcement action to rectify unlawful and damaging work to a watercourse can be taken by the Council.
 - Section 25 - permissive powers to ensure that appropriate maintenance is carried out by landowners on ordinary watercourses. These powers can be exercised if it is deemed that a lack of maintenance or an alteration to a watercourse pose a flood risk.

2.2 STRATEGIES

Aligned to the legislative framework the Council has in place a range of strategies as set out in Appendix 2 and summarised below:

- Barnet Preliminary Flood Risk Assessment (2016)
- Barnet Surface Water Management Plans (SWMPs) (2011)
- Barnet Local Flood Risk Management Strategy (October 2017)
- West London Strategic Flood Risk Assessment (SFRA)-Level 1
- Barnet Strategic Flood Risk Assessment (SFRA)-Level 2 (April 2021)
- Flood and Water Management proposed policies for local plan (DRAFT)
- Flood Risk Management Plan Objectives-Cycle 2 (2021-27)

2.3 RESPONSIBILITIES

¹ Watercourses/ditches/pipes/culverts that are not designated as Main River on the [Environment Agency Main River Map](#)

The Councils implementation of its Lead Local Flood Authority role includes discharging five main statutory duties as below:

- Apply and monitor a Local Flood Risk Management Strategy. LLFAs lead in managing local flood risks (i.e., risks of flooding from surface water, ground water and ordinary (smaller) watercourses). This includes ensuring co-operation between the Risk Management Authorities in their area. (Section 9-Flood and Water Management Act 2010).
- Maintain a register of local structures and features that are likely to have a significant effect on flood risk (Section 21 Flood and Water Management Act).
- In the event of a significant flood, investigate to which authorities have flood risk management functions and whether these authorities have or intend to carry out these functions Section 19 Flood and Water Management Act².
- Provide consultations for the Planning Authority on the design of surface water drainage submitted for major development sites³ (Town and Country Planning (Development Management Procedure) (England) Order 2015) -
- Determine and consent, where appropriate, the changes to the structure of ordinary watercourses, known as Ordinary Watercourse Consent (Land Drainage Act 1991).

Besides the LLFA role, there are 3 other key roles that the Council has in relation to flood risk management in the borough as listed in the table 1 below:

	Roles in relation to Flood Risk Management	Responsibilities
London Borough of Barnet	Lead Local Flood Authority	Apply and monitor a Flood Risk Management Strategy. Investigate flooding and publish Section 19 reports when triggered. Maintain and publish an asset register. Commenting on Planning Applications having surface water drainage implications. Ordinary Watercourse Consent.
	Highways Authority	Management of associated road drainage. Regular inspection and maintenance to ensure major highway drainage systems are clear of blockages were reasonably practicable.

² [Barnet's published criteria for Section 19 investigation](#)

³ Major developments, typically proposing more than 10 dwelling houses. Refer <https://www.legislation.gov.uk/uksi/2010/2184/made> for detailed definition.

	Roles in relation to Flood Risk Management	Responsibilities
	Planning Authority	Preparation of the local development plan, flood and water management policies supported by an appropriate assessment of flood risk (in accordance with NPPF ⁴) and determining planning applications. Ensure new development applications are supported by appropriate drainage proposals.
	Emergency Planning	Emergency Planning – category one responder under the civil contingencies act. The role is set out in the Multi Agency Flood Plan Develop Emergency Plans; Provide advice and assistance to businesses and voluntary organisations regarding business continuity management. Develop arrangements for Civil Preparedness information available for public use, and maintain a system for warning, informing, and advising the public in the event of an emergency. Share information and co-operate with other responders.

Table 1: Barnet-Different Roles in relation to the flood risk management

2.4 STAKEHOLDERS

As a Lead Local Flood Authority, we have a duty to work in coordination with other Risk Management Authorities. The key Risk Management Authorities (RMA's) that have flood risk management responsibilities within the borough are included in Table 2 below along with their identified roles and duties.

It is worth noting that regular maintenance of all the main rivers and ordinary watercourses is the responsibility of the landowners known as “riparian owners”⁵

Risk Management Authority	Role	Responsibility
Environment Agency	Operational responsibility for flooding from main rivers,	Responsibility for managing flooding from main rivers and regulating third party works on main rivers. Undertakes maintenance and operates some key defences Monitors river levels and issue flood warnings on Silk Stream and the Deans, Edgware, Dollis, Mutton brook. Enforcement Authority for the Reservoir Act

⁴ [National Planning Policy Framework \(NPPF\)](#)

⁵ [Duties of Riparian Owners](#)

Risk Management Authority	Role	Responsibility
	Oversight responsibilities in relation to all flood and coastal erosion risk management in England	Statutory consultee for some development proposed in Flood Zones 2 and 3, or within 20m of the top of the bank of a main river. Support LLFAs to support the implementation of flood defence schemes (via Grant in Aid/Local levy funding).
Thames Water/Affinity Water	Drainage of foul water, treatment of waste, surface water sewers and combined sewers. Provision of water	Primary responsibility for sewer flooding, burst pipes or water mains, floods caused by system failures Maintain a register of properties at risk of flooding due to a hydraulic overload in the sewerage network (DG5 register) and undertake improvements to alleviate sewer flooding problems on the DG5 register. Adoption of private sewers. Adoption of sewers offered for adoption by developer. Statutory consultee to the LLFA when the system is proposed to connect to the public sewer. Duty to cooperate with other authorities, including sharing data (where possible).
Transport for London and London Underground	Highways Authority	Responsible for ensuring that drains, including kerbs, road gullies and ditches and the pipe network which connect to the sewers, are maintained Responsible for the effectual drainage of surface water from adopted roads along red routes Responsible for the effectual drainage of surface water from TFL rail/ London underground lines and tube stations.
Highways England	Highways Authority	Responsible for the effectual drainage of surface water from the A12 Responsible for ensuring that drains on the A12 including kerbs, road gullies and ditches and the pipe network which connect to the sewers, are maintained

Table 2: Roles and responsibilities of different RMA's in relation to flood risk management in the borough

Of note is the relationship with Thames Water, the Council has been working with Thames Water on several long-standing issues, the current status of which are set out in Appendix 3 of this report.

2.5 SOURCES OF FLOODING

Flooding from Main Rivers - Main rivers are defined as watercourses having a potential to cause significant widespread flooding. The Environment Agency have duties and powers in relation to Main Rivers. The three key main rivers in Barnet are Silk Stream, Dollis brook and Pymmes Brook.

Flooding from Ordinary watercourses - Ordinary watercourses are the small ditches/watercourses/culverts not marked on the Environment Agency Main

River map. The Council as LLFA have duties and powers in relation to these Ordinary watercourses. Decoy Brook, Clitterhouse ditch, Blaketts brook in Friary Park, Shierbourne brook

Flooding from Surface water - Flooding from the rainfall runoff particularly extreme rainfall events when water ponds or overflows before it enters underground drainage network or a watercourse. The Council as LLFA is responsible to manage the flood risk from surface water. This is often referred as “flash flooding”.

Sewer flooding and flooding from Highway gullies - The Council has circa 30,000 highway gullies. Flooding can happen if gullies are blocked or where the underground Thames Water connections are surcharged, and the gullies are unable to drain into the sewers.

Foul flooding - Often during storm events the surface water is directed into foul sewers leading to foul overflows. Foul flooding can also happen because of blockages caused by non- flushable items into the sewer system. Misconnections from homes/developments can further contribute to the flooding from contaminated water. Thames Water is the responsible Risk Management Authority for foul flooding.

The key sources of flood risk and the corresponding responsible Risk Management Authority is summarised in Table 3 below:

Flood Source & Mechanism	Responsibility							
	Barnet Council as LLFA	Barnet Council as Highways Authority	Environment Agency	Thames Water	Affinity Water	TfL/Network Rail	Riparian Owners	Barnet Council - Emergency Planning
Surface Water flooding	•							
Ordinary Watercourse	•						•	
Groundwater	•							
Main Rivers (Silk Stream, Dollis brook and Pymmes Brook)			•				•	
Reservoirs			•	•	•			•
Sewer				•				
Burst pipes or water mains				•	•			
Railway Flooding						•		

Flood Source & Mechanism	Responsibility							
	Barnet Council as LLFA	Barnet Council as Highways Authority	Environment Agency	Thames Water	Affinity Water	TfL/Network Rail	Riparian Owners	Barnet Council - Emergency Planning
Roads / Highways drainage		•						
Highways Flooding (Red routes)						•		

Table 3: Different sources of flooding and the responsible RMA

2.6 SUCCESSES TO DATE

Flood & Coastal Erosion Risk Management (FCERM) Programme - managed by Environment Agency, LLFA's can seek funding to progress strategic or local flooding issues/schemes. As Barnet lies within Thames River basin District- the Council work closely with Thames Regional Flood and Coastal Committee (TRFCC).

Barnet has the following projects in the national FCERM programme:

Detailed Appraisal Stage:

- The Greenway
- Decoy Brook
- 4 CDAs-Underhill, Longmore, Childs Hill and Friern Barnet.

Business Case stage:

- Trash Screen improvements at three locations (Business Case approved-under implementation stage) Value ~£190k
- Muswell Hill Critical Drainage Area (Business Case submitted, awaiting approval). Value~£822k
- The Vale trash screen (Business case approved, awaiting funding to start construction) Value ~£40k
- Mill Hill Circus Critical Drainage Area (Business Case to be submitted in May 2022).

There is a further potential allocation of circa ~ £7m for Barnet schemes in the FCERM programme until 2027. Officers aim to work proactively to progress the schemes forward in the program, subject to the viability of the schemes and approval of the Business Cases by the Environment Agency.

2.7 PROGRESS TO DATE

Silk Stream Flood Resilience Innovation (SSFRI) Project -The Council was successful in securing £6m in 2021 for Silk Stream Flood Resilience Innovation (SSFRI) project in collaboration with Environment Agency, Defra and London

Borough of Harrow. This secured investment will deliver schemes for 6 years (2021-27) to help reduce the risks of flooding within Silk Stream catchment in the borough.

Trash Screen improvement project at three sites-Shierbourne brook (Burnside Close), Blaketts Brook (Friary Park) and Folly brook (Southover) One out of the three trash screens funded by Environment Agency (with match funding from the Council) has been implemented on the Shierbourne brook, Burnside Close site in January 2022. The second one at Friary Park is under construction. Before and after photos for the trash screen improvement at Burnside Close are set out below:



Unblocking Burnt Oak Brook-River restoration works.

In April 2021, the Council was successful in securing Rivers & Wetland Community days (RWCD) Programme funding to launch “Unblocking Burnt Oak brook” project in Waling Park, Barnet. This project is ongoing in Watling Park, Barnet as part of which community engagement events are being hosted (twice every month) by our delivery Partner Thames21. The scope of the project has been expanded by securing match fund from the Council and Environment Agency. The project aims to deliver the following:

- Remove redundant artificial bank materials to reconnect the Burnt Oak brook to the floodplain and rehabilitate marginal habitats.
- Bank top vegetation management, to increase light, aesthetics, and safety by opening public views of the brook-Community led events.

Community Engagement and Education

As part of the Burnt Oak River Restoration project and Silk Stream Flood Resilience Innovation Project-Various community engagement events were organised and delivered over the last year.

- The events were delivered to educate and increase community awareness and knowledge of ongoing good practice for river care and conservation opportunities.
- Educate and raise awareness of the Thames Water “Bin It Don’t Block It” campaign-spreading message to the local community in relation to non-flushable products
- Dedicated Flood and Water Management website page published on the Council’s website including relevant information of how to report and check flood risk for the local communities and a live page for the ongoing projects and their programme.



3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 None as a direct result of this report.

4. POST DECISION IMPLEMENTATION

4.1 Officers will continue to deliver against the Councils committed Flood Risk Management Plan Measures (2021-27) as listed below:

- By 2027, London Borough of Barnet will organise one community event to improve relations with communities and active resident groups.
- By 2027, London Borough of Barnet will carry out a strategic assessment to map the strategic flood storage areas for Barnet.
- By 2027, London Borough of Barnet will undertake option appraisal studies for at least top 6 priority Critical Drainage Areas (subject to funding) to deliver detailed option appraisal.
- By 2027, London Borough of Barnet will develop business cases to deliver at least 2 Critical Drainage Area schemes on ground (subject to funding).
- By 2027, London Borough of Barnet will establish and improve relations with key stakeholders to work together to develop at least one project at one of the key infrastructure flooding hotspots (subject to funding).
- By 2027, London Borough of Barnet will aim to reduce flood risk in new developments by reviewing and improving the current lead local flood authority planning application review process and produce Barnet-specific Sustainable Urban Drainage Systems guidance.
- By 2027, London Borough of Barnet will review and improve the existing process of emergency preparedness, responding to flooding incidents and post-flood

recovery to develop and share a case study in the Greater London, Thames Flood Risk Area.

- By 2027, London Borough of Barnet will investigate potential locations, appraise nature-based solution options within Critical Drainage Area assessments (or explore other opportunities) to deliver at least one nature-based solution scheme.

4.2 Action Plan:

Surface water management planning

- Update Barnet's Local Flood Risk Management Strategy (last published and adopted in 2017).
- Publish Council's Sustainable urban drainage strategy for the borough - preparing a priority mapping for borough-wide SuDS.
- Natural Flood Management Strategy focusing on Barnet's watercourses.

Studies

- Progressing top ten priority CDA's in the national FECRM program towards Business Case stage.
- Reviewing the FCERM program during annual refresh cycle and adding projects in the program as necessary,

Works

- Implementing the FCERM program schemes/Pump priming CDA schemes. The Muswell Hill CDA scheme is expected to go in the implementation stage in 2022-23 followed by Mill Hill Circus and Decoy Brook.
- Upgrading assets including replacement of trash screens.
- Implementing gully sensors in the selected Vulnerable gullies.
- Maintenance and repairs of highway gullies lying within high risk of surface water flooding. (Within 1 in 30-year return period or 3.33% annual probability of predicted flood outline)

Development Planning

- Appointing a dedicated SuDS officer to comment on Planning applications.
- To be able to utilise the external consultants to manage the peak of planning application consultations.

Monitoring

- Inspection of watercourses/walkovers-setting the baseline.
- Reviewing and updating the maintenance plans.
- Enhanced Gully cleansing of the highway gullies in high surface water flood risk zone (Within 1 in 30-year return period or 3.33% annual probability of predicted flood outline).
- CCTV surveys of long culverted watercourses (P1 category-refer Table 4).

Customer

- Engagement events.
- Publishing promotion material to increase awareness and understanding of flood risk within local communities.

Emergency Planning

- Enhanced coordination with Emergency Planning teams.
- Reviewing the emergency plan and response mechanisms.

Coordination

- Improved relationships with internal Council teams and external stakeholders including Affinity Water, Thames Water and the Environment Agency.

Enforcement

- Publishing local Land Drainage Bye Laws/Policies.
- Enhanced coordination with Council's enforcement teams.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 The Council's Corporate Plan – The Barnet Plan 2021-25, states in its strategic priority "Clean, Safe and Well Run" that it will continue to invest in the Network Recovery Programme to ensure roads and pavements can be used for safe, reliable travel in the long term. The Council's response to flooding and drainage align to this approach.

5.1.2 The approach to flooding and drainage set out in this report will contribute to the Council's Health and Wellbeing Strategy by making Barnet a great place to live and enable the residents to keep well and independent.

5.1.3 The Highway network is the Council's most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. The Highways provide access for business and communities, as well as contribute to the area's local character and the resident's quality of life. Highways really do matter to people and often public opinion surveys continually highlight dissatisfaction with the condition of local roads and the way they are managed including response to flooding and drainage. Public pressure can often result in short term fixes such as potholes for example, rather than properly planned and implemented longer term solutions.

5.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

5.2.1 There are no financial issues as a direct result of this report, the approach to flooding and drainage is funded from external grants and funding applications, the NRP and CIL programme as approved by this Committee on 13 January 2022 and approved Highways managed budgets.

5.2.2 There are no staffing ICT or property implications.

5.2.3 This report drives a sustainability approach through the application of a strategic approach aligned to the Council's statutory commitments as

outlined in this report, in particular the Councils Flood Risk Management Plan Measures (2021-27).

5.3 Legal and Constitutional References

5.3.1 The Flood and Water Management Act 2010 and the Flood Risk Regulations 2009 place duties on local authorities. This legislation designates the London Borough of Barnet as a Lead Local Flood Authority (LLFA) and as such the authority has a statutory responsibility for leading the co-ordination of local flood risk management within the borough. This includes ensuring that flood risks from local sources, including surface water runoff, groundwater and ordinary watercourses and their interactions, are identified and managed.

5.3.2 The Council's Constitution Article 7 – Committees, Forums, Working Groups and Partnerships (Responsibility for Functions, 7.5) gives the Environment Committee responsibility for all borough-wide or cross-constituency matters related to the street scene.

5.4 Insight

5.4.1 The approach advocated in this report will provide the Council with insight in relation to the condition of the flooding and drainage infrastructure and the positive impact of the action plan set out in Section 4.2 of this report.

5.5 Social Value

5.5.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This report does not relate to procurement of services contracts.

5.6 Risk Management

5.6.1 The main risk of the approach advocated in this report is that it does not address the scale and extent of the flooding and drainage infrastructure issues present in the borough. The mitigation is through a strategic approach working with key stakeholders to identify and address the areas of greatest need as outlined in this report.

5.7 Equalities and Diversity

5.7.1 Good flooding and drainage infrastructure have benefits to all sectors of the community in removing barriers and assisting quick, efficient, and safe movement to schools, work, and leisure. The state of the roads and associated flooding and drainage infrastructure are amongst the top resident concerns and the Council is listening and responding to those concerns by the proposed planned flooding and drainage action plan.

5.7.2 The physical appearance and the condition of the roads and pavements have a significant impact on people's quality of life. A poor-quality street

environment will give a negative impression of an area, impact on people's perceptions and attitudes as well as increasing feelings of insecurity. The Council's policy is focused on improving the overall street scene across the borough to a higher level and is consistent with creating an outcome where all communities are thriving and harmonious places where people are happy to live.

5.7.3 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- a. Eliminate discrimination, harassment and victimisation and other contact prohibited by the Equality Act 2010.
- 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.

5.7.4 The broad purpose of this duty is to integrate considerations of equality into day-to-day business and keep them under review in decision making, the design policies and the delivery of services. There is an on-going process of regularisation and de-clutter of street furniture and an updating of highway features to meet the latest statutory or technical expectations.

5.8 Corporate Parenting

5.8.1 No direct or indirect impacts on looked after children or care leavers identified beyond those applicable to the population as a whole.

5.9 Consultation and Engagement

5.9.1 None as a direct result of this report.

6. ENVIRONMENTAL IMPACT

6.1 Continuation of the action plan set out in this report will lead to a positive impact on the Council's carbon and ecology impact aligned to the council's emerging Sustainability Strategy in relation to the sustainable management of water and associated flood and drainage infrastructure.

7. BACKGROUND PAPERS

7.1 Environment Committee paper 15 November 2018 approving the Local Flood Risk Management Strategy
<https://barnet.moderngov.co.uk/documents/b31356/Local%20Flood%20Mana>

[gement%20Strategy%2028th-Nov-2018%2018.30%20Environment%20Committee.pdf?T=9](#)

- 7.2 Environment Committee paper dated 30th June 2020 approving Cycle 2 (2012-27) Flood Risk Management Plan Objectives.
<https://barnet.moderngov.co.uk/documents/s59142/Objective%20Setting-Flood%20Risk%20Management%20Plans%202021.pdf>
- 7.3 London Borough of Barnet's Local Flood Risk Management Strategy available on the Council's website <https://www.barnet.gov.uk/citizen-home/planning-conservation-and-building-control/flood-risk-strategy.html>
- 7.4 London Borough of Barnet's Surface Water Management Plan (SWMP)
<http://admin.barnet.gov.uk/planning-conservation-and-building-control-old/planning-policies/local-plan-old/ldf-evidence-and-2>
- 7.5 Environment Committee Members Item [Agenda for Environment Committee on Thursday 13th January, 2022, 7.00 pm | Barnet Council \(moderngov.co.uk\)](#)

Appendix1

Barnet Highways drainage and flood asset summary

Highways Drainage & Flood Assets Summary	Quantum	Unit	Comments
Total no of highway gullies	29,670	No.	(All Mapped) –Responsible RMA –LBB as Highways Authority
Vulnerable highway gullies	277	No.	(All Mapped)-Responsible RMA –LBB as Highways Authority. Gullies marked as vulnerable based on historical flooding.
High risk highway gullies	2,984	No.	(All Mapped)-Responsible RMA –LBB as Highways Authority. Gullies mapped within 3.33% of annual probability predicted flood outline.
Critical Drainage Areas	33	No	Mapped areas in the borough at highest risk of surface water flooding
Total length of the watercourses in Barnet	186	km	(Main Rivers+ Ordinary Watercourses)
Main Rivers	108	km	Having ~ 330 Mapped Assets in Barnet.
			Responsible RMA-Environment Agency.
Ordinary Watercourses (OW)	78	km	Responsible RMA-LBB as Lead Local Flood Authority (LLFA) 79 mapped assets. <ul style="list-style-type: none"> • P1 Ordinary watercourses (OW) lie within the top 10 priority Critical Drainage Areas • P2 Ordinary watercourses (OW) lie within remaining 23 Critical Drainage Areas. • And P3 Ordinary watercourses (OW) lie within non-Critical Drainage Areas. P1 watercourses are high priority, P2 watercourses medium priority, P3 watercourses low priority
P1 OW	32	km	
P1 OW open channel	25	km	
P1 OW culverted	7	km	
P1 OW open channel surveyed	10	km	
P1 OW CCTV-surveyed	30	m	
P2 watercourses (No survey)	10	km	
P3 watercourses (No survey)	38.2	km	

Appendix 2

London Borough of Barnet Flood and Drainage Strategies and Plans

Barnet Preliminary Flood Risk Assessment (2016)

Barnet's Preliminary Flood Risk Assessment (PFRA) was first undertaken in 2011 as part of the Drain London programme led by Greater London Authority (GLA) and then further adopted with no major changes in 2016. This PFRA identifies key flood risk areas and published historical flood incidents in the borough.

This analysis has shown that there is a high risk of flooding from multiple sources across the LBB. The highest risk areas are within the main river valleys of Silk Stream, Dollis brook and Pymmes brook where the surrounding areas are at risk of fluvial, surface water and groundwater flooding

Barnet Surface Water Management Plans (SWMPs) (2011)

The SWMP for the Council was produced in 2011 as part of the Drain London programme led by GLA (Tier 2). This document is a plan which outlines the preferred surface water management strategy for the Council and identified 33 Critical Drainage Areas (CDA's)-which are at highest risk of surface water (or sewer) flooding.

Barnet Local Flood Risk Management Strategy (October 2017)

This strategy outlines the national and local objectives and measures for managing flood risk within Barnet. It also prepared a priority ranking for the 33 CDA's which helped the Council to identify top ten Critical Drainage Areas which were then included in the National FCERM programme ⁶ in 2018.

West London Strategic Flood Risk Assessment (SFRA)-Level 1

The West London Boroughs of Barnet, Brent, Ealing, Harrow, Hillingdon and Hounslow commissioned the production of a joint [Level 1 Strategic Flood Risk Assessment-which is a unique joint -borough SFRA](#) with an overarching aim is to provide the evidence base for ensuring development is steered away from areas identified most at risk from various flood sources, reducing the risk of flooding to its resident. It is unique in its type being an online SFRA and continually being updated. It clearly includes the overarching National and regional planning policies to which the proposed developments should adhere to-**for example the Council should protect undeveloped Flood zone 3b⁷-functional flood plain**. It also specifies the requirements of the Flood Risk Assessments to be undertaken by the developers, including the checklists for submission of their drainage strategies for the proposed developments.

Barnet Strategic Flood Risk Assessment (SFRA)-Level 2 (April 2021)

The Council completed its Level 2 Strategic Flood Risk Assessment last year to build an evidence base for the draft Local Plan. Detailed assessments were undertaken for each flood source, planning considerations, and potential mitigation measures were

⁶ National Flood & Coastal Erosion Risk Management (FCERM) programme managed by Environment Agency.

⁷ *The National Planning Policy framework defines Flood Zone 3b as the zone that comprises land where water has to flow or be stored in times of flood (typically a land which would flood with an annual probability of 1 in 20 (5%) or greater in any year).*

assessed for 18 sites; in order to take an informed decision on which sites to be taken forward for development or not in the Local Plan.

Flood and Water Management proposed policies for local plan (DRAFT)

- Robust policies to incorporate Sustainable Urban Drainage Solutions (SuDS) in the major and minor developments has been put forward for the Reg19-Draft Water Management Policies [in lines with Non Statutory Technical Standards for SuDS](#).⁸
- A further policy has been put forward for the buildings should not be sited over the top of new or existing culverts/ordinary watercourses.
- River restoration and deculverting has been encouraged in the draft policies.

Flood Risk Management Plan Objectives-Cycle 2 (2021-27)

The Council has put forward Eight “SMART” Flood Risk Management Plan Objectives **(required under Flood Risk regulations, 2009)** as approved by the [Environment Committee in June, 2020](#) and included in the Flood Risk Management Plan, Cycle 2(2021-27)-under consultation. These objectives are listed in Section 10.

⁸ *Non-statutory technical standards for the design, maintenance and operation of sustainable drainage systems to drain surface water.*

Appendix 3

Thames Water Flooding issues status report

Foul Flooding hotspots	Date Last update received	Latest update from Thames Water	Next update expected
West Walk	17/02/22	Thames Water has arranged a thorough clean and camera survey to be carried out on several sections of lines in the local vicinity, including their 225mm foul main and 300mm survey water main. The works are planned to start on 18 February. Once this work has been done, the CCTV surveys will be reviewed to determine next steps	3rd March 2022
Watling Park	10/02/22	Meeting held with Thames Water on 10th February 2022. Not many overflows for this manhole have formally been reported to Thames Water. Thames Water expect this as a blockage issue and encourage better reporting. The Planned installation of signage on site to promote reporting.	Mid-March 2022 (follow up)
West Hendon Playing fields.	10/02/22	Meeting held with Thames Water on 10th February 2022. Not many overflows for this manhole have formally been reported to Thames Water. Thames Water expect this as a blockage issue and encourage better reporting.	Mid-March 2022 (follow up)
Footpath near Stoney fields Park (Or Outfall Stoney fields Park)	22/01/21	Flooding was expected due to a blockage issue. The blockage was cleared off by the Thames Water Operational team.	Resolved
Footpath near Oakleigh Road South	10/02/22	Waiting for a planned maintenance date from Thames Water to investigate the pipe network further downstream. The Crescent Road enquiry is linked to this flooding issue.	Mid-March 2022
Torrington Park	02/12/21	Foul flooding issue is expected to be resolved. Thames Water undertook clearance works to the underground foul water tank on Torrington Park and lining works to the watercourse. In the recent December flooding, there was no reported sewage flooding although flooding from the watercourse was reported. Continued monitoring.	Resolved
Hertford Road	16/02/22	Meeting with Thames Water and residents planned for 24th February 2022	24th February 2022

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Environment Committee

8 March 2022



Title	Highway Material Palette
Report of	Chairman of Environment Committee
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	None
Officer Contact Details	Geoff Mee, Executive Director, Environment Geoff.Mee@barnet.gov.uk

Summary

This report seeks the Committees approval for the introduction of an innovative Highway Material Palette for use in the delivery of the Councils reactive and planned maintenance programmes from 1 April 2022.

The Councils Sustainability Strategy Framework notes that the Council's supply chain makes up the largest contribution to the Council's carbon emissions, in particular the construction supply chain is a significant contributor. The Highways service form's part of this supply chain.

In collaboration with Tarmac Kier JV officers have identified that the implementation of a coherent and consistent Highway Material Palette will not only support the Council in its sustainability objectives, in addition through a 'whole life' approach drive efficiency in the operation, providing the Council with ongoing value for money as well as reduction in CO2e carbon emissions and increasing the use of recycled materials.

Subject to Committee approval of the recommendations, officers will implement the Highway Material Palette aligned to the NRP and CIL programme commencing 1 April 2022 with aligned reporting in relation to CO2e reduction and operational efficiency.

In addition, there will be an opportunity to show case the approach taken by the Council, in collaboration with Tarmac Kier JV, given that the London Borough of Barnet will be the first London Council to work with them in the implementation of a holistic Highway Material Palette approach with sustainability objectives at its heart.

Officers Recommendations

- 1. That the Committee considers and agrees to the introduction of a Highway Material Palette as defined in this report for use in the delivery of the Councils Reactive and Planned Maintenance activities including the NRP and CIL programme from 1 April 2022.**

1. WHY THIS REPORT IS NEEDED

- 1.1 The Councils Sustainability Strategy Framework, as approved by the Policy & Resources Committee on 9 December 2021, noted that through the undertaking of a carbon baseline exercise that the Council's supply chain makes up the largest contribution to the Council's carbon emissions. The baseline data assessed that 37% of the Council's supply chain emissions related to construction.
- 1.2 The Highways service form's part of the construction supply chain through the delivery of both reactive and planned maintenance programmes including the Network Recovery Plan (NRP) and Community Infrastructure Levy (CIL) work programme as approved at the Committee on 13 January 2022.
- 1.3 The Councils Highways Service uses on average 15,000 tonnes of asphalt-based products in a typical year, with the approved NRP and CIL work programme likely to increase this to 25,000 tonnes in 2022/23 financial year.
- 1.4 In collaboration with Tarmac, a company specialising in the production of highway materials (forming one part of Tarmac Kier JV) officers have identified the benefits of implementing a Highway Material Palette. The view is that the implementation of a coherent and consistent Highway Material Palette will not only support the Council in its sustainability objectives, in addition through a 'whole life' approach drive efficiency in the operation, providing the Council with ongoing value for money as well as reduction in carbon emissions and increased use of recycled materials.

2. REASONS FOR RECOMMENDATIONS

- 2.1 As the Environment Committee meeting of 18 January 2021, the Committee authorised the award of a contract for the replacement Highways Term Maintenance Contract through the Transport for London (TfL) Highway Maintenance and Projects Framework (HMPF) by way of a Call Off Contract arrangement to the North Area Contractor, Tarmac Kier JV with the contract commencing 1 April 2021.
- 2.2 The Highways Term Maintenance Contract has introduced a new approach to the way that the contract operates with underlying principles of continuous improvement, improved communication, and the promotion of a 'can do' attitude. This approach has already paid dividends through the trial of materials and operational practices that have

resulted in faster operational delivery and reduced carbon impact compared with traditional practices. Critically these approaches have been contained within the approved highways budget envelope.

- 2.3 As a precursor to the proposed development of a Highway Material Palette the Council conducted material trials and introduction of operational practices in the 2021/22 financial year including the introduction of Warm Mixed materials and use of Rubber Modified Asphalt, which uses one recycled tyre per tonne of asphalt, as summarised in the following case study:

Hill Top resurfacing ~ *Trailing of innovative road resurfacing using over 240 recycled tyres, one tyre per tonne of asphalt material, using Rubber Modified Asphalt. The advantages demonstrated include the use of:*

- *Recycled end of life rubber tyre product which prevents irresponsible disposal (one recycled tyre per tonne of asphalt)*
- *A Warm Mix methodology driving down energy usage in production*
- *Secondary aggregate from the steel industry which results in the Rubber Modified Asphalt containing c75% recycled / secondary materials*
- *CO2e saving of 8% against conventional Hot Mix Stone Mastic Asphalt*

To demonstrate the durability the first time that this material was trialled by Tarmac was in 2013 in Coventry in a priority Bus Lane, the carriageway is still operational. Independent research has determined that the use of recycled tyres does not impact on the quality and durability of the carriageway.

- 2.4 Tarmac Kier JV have recently conducted a review of a comparable London Council using circa 16,000 tonnes of asphalt-based products and have identified that they have been able to save that Council circa 60 tonnes of CO2e (circa 10% reduction) per annum with purely through the implementation of new warm mix materials, instead of more traditional hot mix stone mastic asphalt materials.
- 2.5 The implementation of a coherent and consistent Highway Material Palette will not only support the Council in its sustainability objectives, in addition through a 'whole life' approach drive efficiency in the operation, providing the Council with ongoing value for money as well as reduction in carbon emissions.
- 2.6 The underlying objective of the Highway Material Palette is the development and implementation of a 'whole life' approach, this is further expanded to encompass the following key principles:
- Consistency of material according to treatment type
 - Durability of the material selection
 - Operational efficiency of application
 - Value for money and cost certainty aligned to the Councils budget allocation
 - Warranty and guarantees of material selected
 - Carbon impact

2.7 From an operational perspective the Highway Material Palette jointly developed with Tarmac Kier JV has the following key features to drive sustainability and operational efficiency:

- Default use of Warm Mix asphalt over conventional Hot Mix Stone Mastic asphalt. Warm Mix by its name is produced at a lower temperature through the inclusion of a chemical additive thus reducing fuel and CO₂e at the point of production.
- Introduction of single layer treatments, providing comparable pavement strength compared with traditional two course (binder and surface) treatments reducing material quantity, associated CO₂e outputs and duration of the operational programme.
- Introduction of a high-quality polymer modified bitumen on composite (e.g., concrete) road bases which are prevalent across the borough. This approach manages movement in the underlying concrete and offers superior elastic recovery as a result this approach will reduce on cracking and early life degradation of the asphalt courses.
- Use of recycled and secondary material reduces the need to quarry and transport virgin aggregate therefore preserving stocks and reducing the wider environmental impacts of this activity.

2.8 The Highway Material Palette follows logical steps to ensure appropriate material selection and best outcome aligned to the objectives set out in Section 2.6 of this report:

- **Step 1** - of the process is to take the schedule of footways and carriageways, developed through the NRP and CIL programme, and subject these footways and carriageways to a joint inspection and assessment between officers and Tarmac Kier JV construction specialists. This assessment will determine the treatment options in relation to:
 - Type – Footway/Roadway aligned to location, i.e.
 - Residential (subject to light traffic and delivery vehicles)
 - Commercial (subject to HGV and Bus usage as well as domestic traffic)
 - Trunk Road (subject to heavy sustained use by HGV, Bus and continuous domestic / through traffic)
 - Construction – Fully Flexible (asphalt) / Composite (asphalt and concrete)
 - Condition i.e., Good, Average, Poor and Very Poor.
 - Assessment of local factors to determine the “return to service criteria” (i.e., how quickly the footway or carriageway needs to be returned to a fully accessible condition) and thus the final treatment best suited to the location.
- **Step 2** – determination of appropriate treatment for implementation falls out of the highway material palette. Table 1 summarises the treatment against a range of criteria including road type, road construction, road condition.

Table 1 provides an illustration of the approach set out in the proposed Highway Material Palette:

Ref	Type	Construction	Condition	Treatment	Surface Course Material	Description
1	Commercial	Fully Flexible	Poor	Deep Single Layer	UltiLayer 14 @ 80mm. 14 mm stone.	Deep single layer inlay to manage a poor condition pavement and provide a durable solution than conventional projects that can be returned to service quickly.
2	Residential	Composite	Very Poor	Binder & Surface	UltiLayer 10 @ 40mm 10 mm stone.	Two-layer treatment direct to concrete using polymer modified bitumen to manage movement and prevent cracking from the underlying concrete base.
3	Trunk	Fully Flexible	Poor	Base, Binder & Surface	UltiPave-R @ 40mm	Deep treatment to provide a long-lasting durable pavement compliant with Clause 942 (Specified materials allowable on the strategic road network e.g., Motorways / A roads).
4	Commercial	Composite	Very Poor	Full Reconstruct ion	UltiLayer 10 @ 40mm 10 mm stone.	Two-layer treatment direct to concrete using polymer modified bitumen to manage movement and prevent cracking from the underlying concrete base.
5	Footway	Type 3	Very Poor	Deep Single Layer	UltiFastpath 6 @ 60mm	A single pass footway material design for quick return to service.

Table 1 provides an illustration of the approach set out in the proposed Highway Material Palette

- **Step 3** – conduct a value for money assessment aligned to the budget allocation in line with the Term Maintenance Contract conditions.
- **Step 4** - programme and execute the scheme in line with the Committee agreed NRP and CIL programme.

- **Step 5** – conduct an as built inspection resulting in the submission of a Completion Certificate, associated Carbon Assessment and Lessons learnt.

2.9 Aligned to the implementation of the Highway Material Palette, officers have been able to negotiate with Tarmac through Tarmac Kier JV a back to back **five-year material warranty** on the basis that the jointly produced highways material palette is followed. For information the standard warranties of these materials are **two years**.

2.10 In addition, Tarmac Kier JV have committed to provide the Council with a CO2e report detailed progress against the proposed target aligned to the NRP and CIL programme, with the baseline being the range of more traditional hot mix materials the Council has been using to date.

2.11 In conclusion the introduction of the Highway Material Palette will enable the Council to:

- Drive a reduction in CO2e of circa 10% per annum compared with the current approach to highway material selection
- Use of more recycled material in the aggregate
- Enable value for money and cost certainty aligned to the Councils budget allocation
- Increase operational efficiency including incrementally advancing the programme aligned to “return to service criteria”
- Secure the benefit of 5-year material warranty

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 The alternative option is to continue with the current arrangements where highway materials are selected on a scheme-by-scheme basis using traditional approaches. This approach loses the ability to fully exploit the opportunities in relation to the development and implementation of a “whole life approach” in relation operational efficiency, value for money and reduction in carbon emissions and increased recycling.

4. POST DECISION IMPLEMENTATION

4.1 Once the Committee approves the recommendations, officers will implement the Highway Material Palette aligned to the NRP and CIL programme commencing 1 April 2022 with aligned reporting in relation to CO2e reduction and operational efficiency.

4.2 In addition to Show Case the approach taken by the Council in collaboration with Tarmac Kier JV, given that the London Borough of Barnet will be the first London Council to work with them on the implementation of a holistic Highway Material Palette approach.

4.3 Value for Money will be monitored during the first-year factoring in a range of variables which make up a “whole life approach” including the ground conditions, cost of the product, the amount used, operational duration to deliver a worst case cost neutral scenario compared with traditional approaches currently deployed.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 The Council’s Corporate Plan – The Barnet Plan 2021-25, states in its strategic

priority “Clean, Safe and Well Run” that it will continue to invest in the Network Recovery Programme to ensure roads and pavements can be used for safe, reliable travel in the long term.

5.1.2 In particular, the Network Recovery Programme and Community Infrastructure Levy fund will improve the highway network, which in turn will contribute to improving the local environment and the quality of life for the residents and help create conditions for a vibrant economy.

5.1.3 The proposed Highway Material Palette application will contribute to the Council’s Health and Wellbeing Strategy by making Barnet a great place to live and enable the residents to keep well and independent.

5.1.4 The Highway network is the Council’s most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. The Highways provide access for business and communities, as well as contribute to the area’s local character and the resident’s quality of life. Highways really do matter to people and often public opinion surveys continually highlight dissatisfaction with the condition of local roads and the way they are managed. Public pressure can often result in short term fixes such as potholes for example, rather than properly planned and implemented longer term solutions. The proposed Highway Material Palette aligned to the 2022/23 Work Programme aims to reduce the carbon footprint of the operation, maintain cost neutrality, and increase the speed of the programme without detrimental impact on the delivered scheme.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 There are no financial issues as a direct result of this report, the application of the Highway Material Palette will support the delivery of the NRP and CIL programme as approved by this Committee on 13 January 2022.

5.2.2 There are no staffing ICT or property implications.

5.2.3 This report drives a sustainability approach through the application of a holistic Highway Material Palette with a “whole life approach” in relation to driving efficiency in the operation, providing the Council with ongoing value for money as well as reduction in carbon emissions and increased use of recycled materials. It is anticipated that this approach will drive a reduction in CO₂e of circa 10% per annum compared with the current approach to highway material selection.

5.3 **Legal and Constitutional References**

5.3.1 The Council’s Constitution Article 7 – Committees, Forums, Working Groups and Partnerships (Responsibility for Functions, 7.5) gives the Environment Committee responsibility for all borough-wide or cross-constituency matters related to the street scene.

5.3.2 On 2 March 2021, Full Council approved the Council’s capital programme for the Network Recovery Programme for a further four financial years (2020/21 to 2023/24). The 2022/23 CIL allocation has been included in the coming year’s final capital

programme, to be agreed by full Council at its forthcoming annual budget setting meeting.

5.3.3 Highway Maintenance is a statutory duty under the Highways and Traffic Management Acts.

5.3.4 The Traffic Management Act 2004 places obligations on authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

5.4 **Insight**

5.4.1 The approach advocated in this report will provide the Council with insight in relation to the efficiency of the operation, value for money assessments and contribution to sustainability through effective measurable CO2e reductions.

5.5 **Social Value**

5.5.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This report does not relate to procurement of services contracts.

5.6 **Risk Management**

5.6.1 The main risk of the approach advocated in this report are that the selected materials do not perform as expected, this is mitigated through Tarmac Kier JV willingness to increase material warranty periods to five years from the current two years as well as the individual materials proposed have been developed and tested by Tarmac, independently verified, and used by Tarmac clients for many years, often in challenging operational environments.

5.7 **Equalities and Diversity**

5.7.1 Good roads and pavements have benefits to all sectors of the community in removing barriers and assisting quick, efficient, and safe movement to schools, work and leisure. This is particularly important for older people, people caring for children and pushing buggies, those with mobility difficulties and sight impairments. The state of roads and pavements are amongst the top resident concerns and the Council is listening and responding to those concerns by the proposed planned highways maintenance programme.

5.7.2 The physical appearance and the condition of the roads and pavements have a significant impact on people's quality of life. A poor-quality street environment will give a negative impression of an area, impact on people's perceptions and attitudes as well as increasing feelings of insecurity. The Council's policy is focused on improving the overall street scene across the borough to a higher level and is consistent with creating an outcome where all communities are thriving and harmonious places where people are happy to live.

5.7.3 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- a. Eliminate discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010.
- 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.

5.7.4 The broad purpose of this duty is to integrate considerations of equality into day-to-day business and keep them under review in decision making, the design policies and the delivery of services. There is an on-going process of regularisation and de-clutter of street furniture and an updating of highway features to meet the latest statutory or technical expectations.

5.8 Corporate Parenting

5.8.1 No direct or indirect impacts on looked after children or care leavers identified beyond those applicable to the population as a whole.

5.9 Consultation and Engagement

5.9.1 None as a direct result of this report.

6. ENVIRONMENTAL IMPACT

6.1 Implementing the recommendations in the report will lead to a positive impact on the Council's carbon and ecology impact aligned to the council's emerging Sustainability Strategy in relation to supply chain operations and material selection including use of low carbon and recycled materials. As set out in Section 2.11 of this report, the introduction of the Highway Material Palette will:

- Drive a reduction in CO₂e of circa 10% per annum compared with the current approach to highway material selection
- Use more recycled material in the aggregate
- Enable value for money and cost certainty aligned to the Council's budget allocation
- Increase operational efficiency including incrementally advancing the programme aligned to "return to service criteria"
- Secure the benefit of 5-year material warranty

7. BACKGROUND PAPERS

7.1 Environment Committee approval of the 2022/23 Network Recovery Programme
https://barnet.moderngov.co.uk/documents/s69487/Environment%20Committee%20Report%20NRP%20CIL%20Year%208%20040122%20Final_.pdf

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Environment Committee

8 March 2022

Title	Highways Future Service Delivery Strategy Post September 2023
Report of	Chairman of Environment Committee
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	<i>Appendix 1 – Highways Future Service Delivery Strategy - Officer led Options Assessment</i> <i>Appendix 2 – Proposed Mixed market service provision or “Mixed Economy” Model</i> <i>Appendix 3 – Highways Service Organisational Design</i> <i>Appendix 4 - High-level Glide Path Activities to September 2023</i>
Officer Contact Details	Geoff Mee, Executive Director, Environment Geoff.Mee@barnet.gov.uk

Summary

The Council at the meeting of 25 January 2022 resolved that the council does not seek to extend the highways service element of Re and that the Council recommends the future strategy for the Highways service should be the subject of a separate report to the Environment Committee.

The purpose of this report is to set out to the Committee the analysis undertaken in the assessment of the proposed service delivery options and seek approval to progress with the implementation of the preferred “Mixed Economy” highways future service delivery option as defined in Section 2.6 of this report.

In addition, the report overviews the glide path delivery workstream programme to enable an effective service return at the end of September 2023.

Officers Recommendations

- 1. That the Committee notes the analysis undertaken in the development of the proposed service delivery strategy options.**
- 2. That the Committee delegates authority to the Executive Director, Environment to progress with the implementation of the “Mixed Economy” service delivery model as set out in Section 2.6 of this report.**
- 3. That the Committee agrees to receive future reports on progress with the implementation of the glide path workstream programme as set out in Section 4.1 of this report.**

1. WHY THIS REPORT IS NEEDED

- 1.1 The highways network is one of the most valuable assets the Council owns, acting as a platform for social and economic prosperity and enabling the undertaking of safe, reliable, and sustainable journeys. The service supports emergency and response services and acts as the biggest utility conduit in the Borough. The highways network is ultimately intrinsic to a well-

functioning sustainable community and is maintained within a clear and coherent strategy aligned to the Clean, safe and well run workstream set out in The Barnet Plan 2021-2025, legislation and national best practice “Well managed Highway Infrastructure: A Code of Practice”.

- 1.2 The Council at the meeting of 25 January 2022 approved that the council does not seek to extend the highways service element of Re and that the Council recommends the future strategy for the Highways service should be the subject of a separate report to this Committee.
- 1.3 The Council decision introduces the opportunity for the design and implementation of a new highway service delivery model that is both flexible and agile to adapt to rapidly changing circumstances and customer needs, whilst making the best use of resources, internal and external.
- 1.4 This report sets out the options analysis undertaken by officers aligned to the return of the Highways Service to the Councils control at the end of September 2023 and the preferred Highway Future service delivery option recommended by officers for approval by this Committee. In addition, a summation of the glide path delivery workstream programme to enable an effective service return at the end of September 2023.

2. REASONS FOR RECOMMENDATIONS

Current Highways Service

- 2.1 As the Committee is aware the current highways service, through the DRS contract, delivers over 100 distinct activities as defined in the contract through a team of circa 105 full time equivalents. This includes management, design and engineering, business support and field-based inspection employees, but excludes staff employed by Tarmac Kier JV delivering the Councils Highways Term Maintenance contract (reactive and planned highway maintenance) and third-party specialist engineering, in summary the current service is configured as follows:
 - **Highways Network Management** (Carriageways, footways and Asset Management; Crossovers, Drainage, Winter Gritting, Bridges & Term Contract Management)
 - **Traffic & Development and Highways Strategy** (responsible for parking design, traffic schemes, highways planning, development control, travel planning, road safety education and the highway maintenance programme)
 - **Transport and Regeneration** (undertaking transportation development control input into regeneration schemes)
- 2.2 In addition, there the Council delivers the following allied service activities which current sit outside the Highways service, the dependencies of which have been considered in the next section of this report:

- Transport Strategy
- Transport Modelling
- Winter Maintenance Operations
- Emergency Out of Hours Operations
- Street Lighting
- Parking Services

Future Service Delivery Strategy Options

- 2.3 Highways is a particularly complex service which is subject to cyclical, financial and operational peaks in demand. As such any future service delivery strategy needs to be both flexible and agile to adapt to rapidly changing circumstances, customer needs, and capable of making the best use of resources, internal and external.
- 2.4 With the approval to bring the Highway Service back into the Councils control comes the opportunity to ensure that the future service delivery option(s) enables the Council and its delivery partners to fully address the challenges and opportunities presented through:
- Maintaining and enhancing the highway network performance to meet the evolving needs of our community
 - Maintaining financial resilience to deliver best value
 - Optimising the highway network to deliver against Transport, Economic and Sustainability agendas
 - Maintaining the capacity and capability of the transferring workforce to deliver against the policies and strategies of the Council
 - Targeted approach to the recruitment and retention of a mobile skilled workforce, and use of carefully selected supply chain partners to support capacity challenges
 - Enhanced collaboration with stakeholders and delivery partners
 - Adoption of new technologies, innovation, and best practice
 - Embracing new activities on the highway network e.g., Electric Vehicles
 - Mitigating the increased impact of Flooding and Drainage
- 2.5 As the committee is aware a detailed officer led options assessment has been conducted in relation to the options available to the Council, the outcome of this options assessment has concluded, and officers are now able to put forward recommendations to this Committee. The outcome of this options assessment including advantages, disadvantages, and the reason for selection / rejection of the respective options is set out in Appendix 1 of this report, table 1 below summarises the options that have been considered:

Option	Description
1. Bring All Services In-House including operations through a DSO / DLO arrangement	In-source all activities including management, strategy and policy, design capability and operational services providing an end-to-end in-house service.
2. Total Outsource of all activities maintaining a 'Thin Client' model	Traditional client and contractor relationship with the initial service design defined by the client and service delivery transferred to the contract provider.
3. Local Authority Trading Company	Development of a wholly owned Local Authority Trading Company not restricted by the Public Contract Regulations regarding suppliers.
4. Joint Venture with a commercial partner	Formation of a Limited company in partnership with an external service provider through a negotiated agreement. The Council would be the majority shareholder and the provider would provide design and operational delivery capability.
5. Mix market service provision "Mixed Economy"	Arrangement through a mix of self-delivered, internal, and external service providers. Maximizing the benefit of the returning internal capacity and capability but supported by procured professional and operational external providers.
6. Wider Collaboration and Alliance Service Delivery model	Longer-term collaborative contract with several suppliers to deliver large scale multidisciplinary project and/or programmes of work i.e. the Councils Highways Team retains the "intelligent client" strategy and policy role and in relation to the management of the highway asset, development control and street works functions with appointed term maintenance and design services being brought together under the New Engineering Contract (NEC) partnering agreement to ensure collaboration between partners.

Table 1: Officer evaluated options

2.6 In summary the proposed option is to move away from the current commissioner / managing agent / operational delivery model to a Mixed market service provision or "**Mixed Economy**" Model, this approach is delivered through a mix of self-delivered, internal, and external service provision based upon asset management principles. The focus will be the delivery of outcomes using clearly defined specifications and performance criteria aligned to a medium term (3 years plus) asset-based delivery plan. Table 2 summarises the approach which is set out in more detail in Appendix 2 of this report.

Highways Service - Mixed market service provision or “Mixed Economy” Model

Function	Activities	Strategic Responsibilities	Primary Mixed Economy Delivery Provider	Secondary Mixed Economy Delivery Provider
Highway Reactive and Planned Maintenance	Construction	Operational / Construction	External provider	Top-Up contract arrangements
Highway Technical Compliance	Technical support and benchmarking	Policy / Design	Highways Team	Professional Services Partner
Development Control	Development Control	Policy / Managing Agent	Highways Team	Professional Services Partner
Traffic and Travel	Parking Design & Sustainable Travel	Policy / Design / Delivery	Highways Team	Professional Services Partner
Asset Management	Scheme Design	Design / Delivery	Highways Team	Professional Services Partner
	Construction Management	Delivery / Managing Agent	Highways Team	N/A – compliance function needs to be direct delivered
	Structures Flood Engineering	Policy / Design / Delivery	Highways Team	Professional Services Partner
Traffic and Compliance	Street Works & Carriageway and Footway Inspections	Policy / Managing Agent	Highways Team	N/A – compliance function needs to be direct delivered
Business Operations	Project Management, Performance, Finance and Communications	Policy / Assurance	Highways Team	LBB Services Teams

Table 2: “Mixed Economy” primary and secondary delivery provider model

The approach has been aligned to the implemented Highways Service Organisational design, as detailed in Appendix 3 of this report.

- 2.7 With the focus on outcomes, it means that the respective highways service area will be assessed on achievement against the defined outcomes irrespective of whether it is self-delivered, internal, or external. This approach will enable the highways management team to focus in on the areas of under-performance without detriment to those areas that are performing well.
- 2.8 Through the development of a medium-term asset-based delivery plan effective forward planning of resources will enable the delivery of customer centric efficient and effective services. This approach will ensure the effective connection between Customers, Elected Members, and the Highways Service.
- 2.9 The model is based upon the transfer back of staff identified within the current Re Highways Service DRS contract to ensure effective strategic, managerial, and operational capacity.
- 2.10 The proposed option will have the flexibility to factor in the other service areas identified in Section 2.2 of this report both prior and post September 2023 aligned to the council’s wider service delivery plans. For information Table 3 below illustrates the dependencies between these services and the Highways service:

Other Council services allied to Highways	Highways service dependency
Transport Strategy	<p>Transport strategy development sits within the Environment Strategy team with connections into Growth and Regeneration division.</p> <p>The Highways service supports the implementation of the strategic targets and actions.</p>
Transport Modelling	<p>The wider transport modelling is commissioned and administered by the strategic planning and regeneration teams.</p> <p>The Highways service supports the undertaking of transport modelling and implementation schemes in collaboration with the strategic planning team.</p>
Winter Maintenance Operations	<p>The Highways service is the custodian of the Winter Maintenance Plan and the decision-making process for the crews to go out on the network to spread salt / conduct snow clearance etc.</p> <p>The Street scene Division provides the actual crews, vehicles and tracking equipment.</p>
Emergency Out of Hours Operations	<p>The Emergency Out of Hours operation is administered 24/7 by the Highways Service through two providers:</p>

Other Council services allied to Highways	Highways service dependency
	<ol style="list-style-type: none"> 1. Tarmac Kier JV - During normal working hours i.e., Monday to Friday 0730 hours to 1700 hours 2. Street scene division – Out of hours Monday to Friday i.e., 1700 to 0730 hours and throughout the weekend
Street Lighting	<p>The Highways service deals with all “non-illuminated” signs, the Street Lighting Division with all “illuminated” signs and streetlights on the highway impacting on:</p> <ol style="list-style-type: none"> 1. Highways Design including Junctions, Crossings, Vehicle Crossovers etc. 2. Electric Vehicle (EV) charging role out including installation of infrastructure, footways, carriageways parking bays etc.
Parking Services	<p>The Parking service undertakes the commissioning of parking services, CPZ reviews, parking management and enforcement.</p> <p>The Highways service undertakes the commissioned design, consultation, and implementation of parking schemes, CPZ reviews, traffic management orders and disabled parking bays.</p>

Table 3: Highway service dependencies

- 2.11 The proposed “Mixed Economy” model will be designed to allow the council to assess and potentially implement Wider Collaboration and Alliance Service Delivery models over time.
- 2.12 In order to validate the approach to the delivery of the future Highways Service, set out in this paper, officers have been working with the Future Highways Research Group (FHRG), Proving Services (part of Cranfield University Innovation Centre) of which the Council is a long-standing member. In summary the feedback from the lead Director of Proving Services in relation to the proposed options set out in this paper is that the:

“Direction of travel is very much aligned to the current market trend; the majority of highways authorities coming back to market are favouring some form of mixed economy. That stands true for authorities that are currently outsourcing all/the great majority of services and those that are currently closer to the DLO model.

The future operating model you describe for Barnet is very similar to the model that we have designed with another authority over the past six months. The alliance principle also aligns closely to the model adopted by another lead authority, who have been the top performing FHRG member in terms of Value for Money over the past few years. So a model with a proven track record that you should be able to adopt with good confidence.”

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 A detailed options assessment has been conducted in relation to the options available to the Council following the Council decision not to extend the highways service element of Re. The outcomes of this options assessment are set out in Appendix 1 of this report:

- Bring All Services In-House including operations through a DSO / DLO arrangement
- Total Outsource of all activities maintaining a 'Thin Client' model
- Local Authority Trading Company
- Joint Venture with a commercial partner
- Mix market service provision "Mixed Economy"
- Wider Collaboration and Alliance Service Delivery model

Of these options there is the potential to implement the Wider Collaboration and Alliance Service Delivery model over time once the proposed Highways Future Service Delivery Strategy has had time to bed in post September 2023.

4. POST DECISION IMPLEMENTATION

4.1 Work will commence on the implementation of the proposed Highway Future Delivery Strategy through the glide path workstream as summarised in table 4 below:

Workstream	Outcome	Current Activity
Improved Customer Satisfaction	Enhanced Member and Customer experience through clearly signposted and delivered services. Resulting reduction in enquiries.	Formation of a communications plan for the service, raising awareness and promoting the positive things we do.
People	Clear recruitment strategy aligned to glide path communication plan taking existing staff and new appointments on the journey.	Renewed drive on recruitment and retention to populate the approved organisational structure. Continuation of the learning and development programme put in place through the transformation programme.
Policy	Risk-based asset management policy approach moving the service from a reactive to planned delivery model.	Implementation of refreshed highways policy and strategy documents to support the Council in service delivery.
Procurement	Service aligned construction management	Development and subsequent implementation of a refreshed

Workstream	Outcome	Current Activity
	procurement strategy enabling effective and timely operational delivery through the client led collaborative arrangement.	suite of supplier contracts to support service delivery.
Project Management	Medium to Long Term forward pipeline delivered through Project Management Office led project management design & engineering services.	Introduction of additional project management resources to support the Councils Capital investment programme including dedicated project management specialists for the Network Recovery Plan and Drainage and Flooding schemes.
Digital Journey	Embedded asset management system and development of website, improving digital transactional and feedback services	Completion of Confirm Rollout. Go live of SharePoint project management capability. Completion of Website Self Service for Highways Services Licence and Crossover applications.
Finances	Medium and long-term cost certainty enabling effective planning, resourcing, and delivery	Implementation of additional £20m Capital investment secured over the next five years on highways infrastructure projects including roads, pavements, structures, drainage, and flooding from 1 April 2022.

Table 4: Glide Path Workstream Outcomes and Current Activity aligned to Highway Future Service Delivery Strategy

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

- 5.1.1 The aims of the options assessment for the Highways Future Service Delivery Strategy are consistent with the council's Corporate Plan, Barnet 2024, in that it aims to ensure the delivery of high quality, good value services.
- 5.1.2 Robust budget, performance and risk monitoring are essential to ensure that there are adequate and appropriately directed resources to support delivery and achievement of corporate and committee priorities as set out in the Corporate Plan (Barnet 2024) and Annual Delivery Plans.
- 5.1.3 The Highway network is the Council's most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. The Highways provide access for business and communities, as well as contribute to the area's local character and the resident's quality of life. The move to the proposed Highways Future Service Delivery Strategy will ensure the service has the necessary capacity and capability to deliver against corporate priorities post September 2023.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 The delivery of the Highways Service is within the financial envelope set by the Council through the approved MTFS.

5.2.2 The return of the service to the Council will be undertaken through a defined demobilisation plan with staff matters conducted in compliance with TUPE regulations.

5.2.3 There are no IT or Property implications because of this report.

5.3 **Legal and Constitutional References**

5.3.1 Prior to the Environment Committee consideration of this report, reports have been considered by the Financial Performance & Contract Committee and Policy & Resources Committee. Constitutional references are detailed in the reports to those committees referenced in section 7 (Background Papers). Due to the significance of the services currently provided by Capita (including the RE Highways service), Council has considered a Review of the Capita Contracts at its meeting on 25 January 2022. At the meeting Council approved the recommendation relating to the RE Highways service, and that a further report will be brought back to this Committee seeking formal approval for the proposed Highways Delivery Strategy and preferred future service delivery option as referred to in this report.

5.3.2 The Council's Constitution Article 7 – Committees, Forums, Working Groups and Partnerships (Responsibility for Functions, 7.5) gives the Environment Committee responsibility for all borough-wide or cross-constituency matters related to the street scene.

5.3.3 Legal advice will be sought as required, including on contractual, public procurement, consultation, and employment related matters, to ensure that the council acts lawfully at all times.

5.4 **Insight**

5.4.1 The service delivery will be informed by insight data provided through the Councils asset management systems and other sources.

5.5 **Social Value**

5.5.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. Before commencing a procurement process, commissioners should think about whether the services they are going to buy, or the way they are going to buy them, could secure these benefits for

their area or stakeholders. As set out in the council's Contract Procedure Rules, commissioners should use the Procurement Toolkit, which includes Social Value guidance. The Contract Management Toolkit should also be used to help ensure that contracts deliver the expected services to the expected quality for the agreed cost. Requirements for a contractor to deliver activities in line with Social Value will be monitored through the contract management process.

5.6 Risk Management

5.6.1 Effective management of risk is an integral part of asset management and the Council's Risk Management Framework has established strategic and departmental risk registers.

5.6.2 The Code of Practice 'Well-managed highway infrastructure' (2016) advocates the adoption of a risk-based approach to the management of highway infrastructure assets, and the options assessment for the Highways Future Service Delivery Strategy has been developed in accordance with this.

5.7 Equalities and Diversity

5.7.1 Good roads and pavements have benefits to all sectors of the community in removing barriers and assisting quick, efficient, and safe movement to schools, work and leisure. This is particularly important for older people, people caring for children and pushing buggies, those with mobility difficulties and sight impairments. The state of roads and pavements are amongst the top resident concerns and the Council is listening and responding to those concerns through the management of an effective highway network.

5.7.2 The physical appearance and the condition of the roads, pavements and highway infrastructure have a significant impact on people's quality of life. A poor-quality street environment will give a negative impression of an area, impact on people's perceptions and attitudes as well as increasing feelings of insecurity. The Council's policy is focused on improving the overall street scene across the borough to a higher level and is consistent with creating an outcome where all communities are thriving and harmonious places where people are happy to live.

5.7.3 There are on-going assessments carried out on the conditions of the roads, pavements, and highways infrastructure in the borough. These ongoing assessments incorporate Public Rights of Way on which there were requests by letter, email, and phone-calls from users.

5.7.4 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- Eliminate discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010.

- Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

5.7.5 The broad purpose of this duty is to integrate considerations of equality into day-to-day business and keep them under review in decision making, the design policies and the delivery of services. There is an on-going process of regularisation and de-clutter of street furniture and an updating of highway features to meet the latest statutory or technical expectations.

5.8 Corporate Parenting

5.7.1 No direct or indirect impacts on looked after children or care leavers identified beyond those applicable to the population as a whole.

5.9 Consultation and Engagement

5.9.1 None as a direct result of this report.

6. ENVIRONMENTAL IMPACT

6.1 Implementing the recommendations in the report will lead to a positive impact on the Council's carbon and ecology impact aligned to the council's emerging Sustainability Strategy in relation to supply chain operations and material selection including use of low carbon and recycled materials.

7. BACKGROUND PAPERS

7.1 Policy and Resources, 9 December 2021, Recommendation from Financial Performance & Contracts Committee – Review of Capita Contracts

<https://barnet.moderngov.co.uk/documents/g10890/Public%20reports%20pack%2009th-Dec-2021%2019.00%20Policy%20and%20Resources%20Committee.pdf?T=10>

7.2 Financial Performance and Contracts Committee, 23 November 2021, Review of Capita Contracts:

<https://barnet.moderngov.co.uk/documents/g10801/Public%20reports%20pack%2023rd-Nov-2021%2019.00%20Financial%20Performance%20and%20Contracts%20Committee.pdf?T=10>

7.3 Financial Performance and Contracts Committee, 8 June 2021, Item 8, Review of Capita Contracts:

<https://barnet.moderngov.co.uk/documents/g10799/Public%20reports%20pack%2008th-Jun-2021%2019.00%20Financial%20Performance%20and%20Contracts%20Committee.pdf?T=10>

7.4 Council, 25 January 2022, Item 11.1 Referral from Policy & Resources Committee – Recommendation from Financial Performance and Contracts Committee – Review of Capita Contracts:

<https://barnet.moderngov.co.uk/documents/s69743/Referral%20from%20Policy%20Resources%20Committee%20Review%20of%20Capita%20Contracts.pdf>

Appendix 1:

Highways Future Service Delivery Strategy - Officer led Options Assessment

Option	Description	Advantages	Disadvantages	Reason for Rejection
Bring All Services In-House including operations through a DSO / DLO arrangement	In-source all activities including management, strategy and policy, design capability and operational services providing an end-to-end in-house service.	Retention of greatest overall control of the services, end to end from setting strategy through to design and operational delivery.	Inflexible model that does not factor in the demands of a highway service in relation to peaks and troughs, seasonality and resource requirements for specialist skills that may not need to be fully resourced.	Considered too inflexible, high overheads and capital requirements in relation to depots, vehicles, plant and equipment. Additional workforce TUPE transfer into the Council from Term Maintenance Contractor. Difficulty to trade and manage income targets.
Total Outsource of all activities maintaining a 'Thin Client' model	Traditional client and contractor relationship with the initial service design defined by the client and service delivery transferred to the contract provider.	Transfer of risk to contract provider. Clearly defined client strategy and policy framework. Defined boundaries between client and contractor activities be they design or operational delivery.	Requires significant set up arrangements with strong, effectively procured contracts and associated governance with a strong client structure managing commercial and performance measures. In flexible to the demands of the changing demands of the service.	Considered too inflexible, significant contractual arrangements needed to ensure services are defined and administered. Reduces the ability to effectively manage the market aligned to changing service needs. Transferred trading and delivery targets.
Local Authority Trading Company	Development of a wholly owned Local Authority Trading Company not restricted by the Public Contract Regulations regarding suppliers.	Ability to be effectively set up to incorporate services and respond to trade opportunities quickly. Direct control over the serviced delivery and management of any profits secured. Flexible to develop opportunities with commercial partners including the ability to become a future Joint Venture organisation.	Requires resources to set up with associated due diligence in relation to financial, commercial and tax status. In addition, a need to determine resourcing especially in relation to funding, back-office provision, staff onboarding and incorporation of assets.	Considered resource intensive to set up vs the desired outcome, focus is on services that trade within and externally to the Council. Requirement sufficient cashflow to operate. Only part of the services delivered through the DRS contract fall into the definition of trading.

Option	Description	Advantages	Disadvantages	Reason for Rejection
Joint Venture with a commercial partner	Formation of a Limited company in partnership with an external service provider through a negotiated agreement. The Council would be the majority shareholder and the provider would provide design and operational delivery capability.	Delivery model known to the Council with the ability to mitigate and manage risk. Ability to effectively trade and manage income targets. Ability to access wider service suite offered by the commercial provider.	Requires significant set up arrangements with strong, effectively procured contracts and associated governance with a strong client structure managing commercial and performance measures. Risks and liabilities can still sit with the Council.	Overly complex delivery model with commercial governance and risk liabilities. Significant procurement and legal resources required to procure and enact the arrangement.
Mix market service provision "Mixed Economy"	Arrangement through a mix of self-delivered, internal, and external service providers. Maximizing the benefit of the returning internal capacity and capability but supported by procured professional and operational external providers.	The ability to implement a new approach to prioritisation and procurement of services aligned to outcomes. Maximisation of service efficiency and effectiveness through the deployment of self-delivered, internal (within the Council) and external service provider delivery aligned to an asset based 3 years plus delivery plan with the ability to flexibly approach third party income and grants.	Requires strong strategic management with aligned project management office capacity and capability to coordinate and deliver the plan for the benefit of our customers.	N/A Proposed officer option recommended in this report aligned to benchmarking undertaken with the Future Highways Research Group
Wider Collaboration and Alliance Service Delivery model	Longer-term collaborative contract with several suppliers to deliver large scale multidisciplinary project and/or programmes of work i.e. the Councils Highways Team retains the "intelligent client" strategy and policy role	Collaborative working model established in line with NEC4 alliancing model with the benefits of aligned objectives and risk share. Capable of delivering across multi-disciplinary suppliers i.e. consultants and contractors.	Requires clarity of outcomes with significant set up arrangements to maximise the underlying risk and reward model.	Requires time to develop strategy, identify partners and procure the contract. Officers feel that this model has the potential for future service delivery once the proposed "Mixed Economy" model are

Option	Description	Advantages	Disadvantages	Reason for Rejection
	<p>and in relation to the management of the highway asset, development control and street works functions with appointed term maintenance and design services being brought together under the New Engineering Contract (NEC) partnering agreement to ensure collaboration between partners.</p>	<p>Less opportunity for dispute.</p>		<p>bedded in.</p> <p>This approach is being implemented by lead authorities in conjunction with the Future Highways Research Group</p>

Appendix 2:

Proposed Mixed market service provision or “Mixed Economy” Model

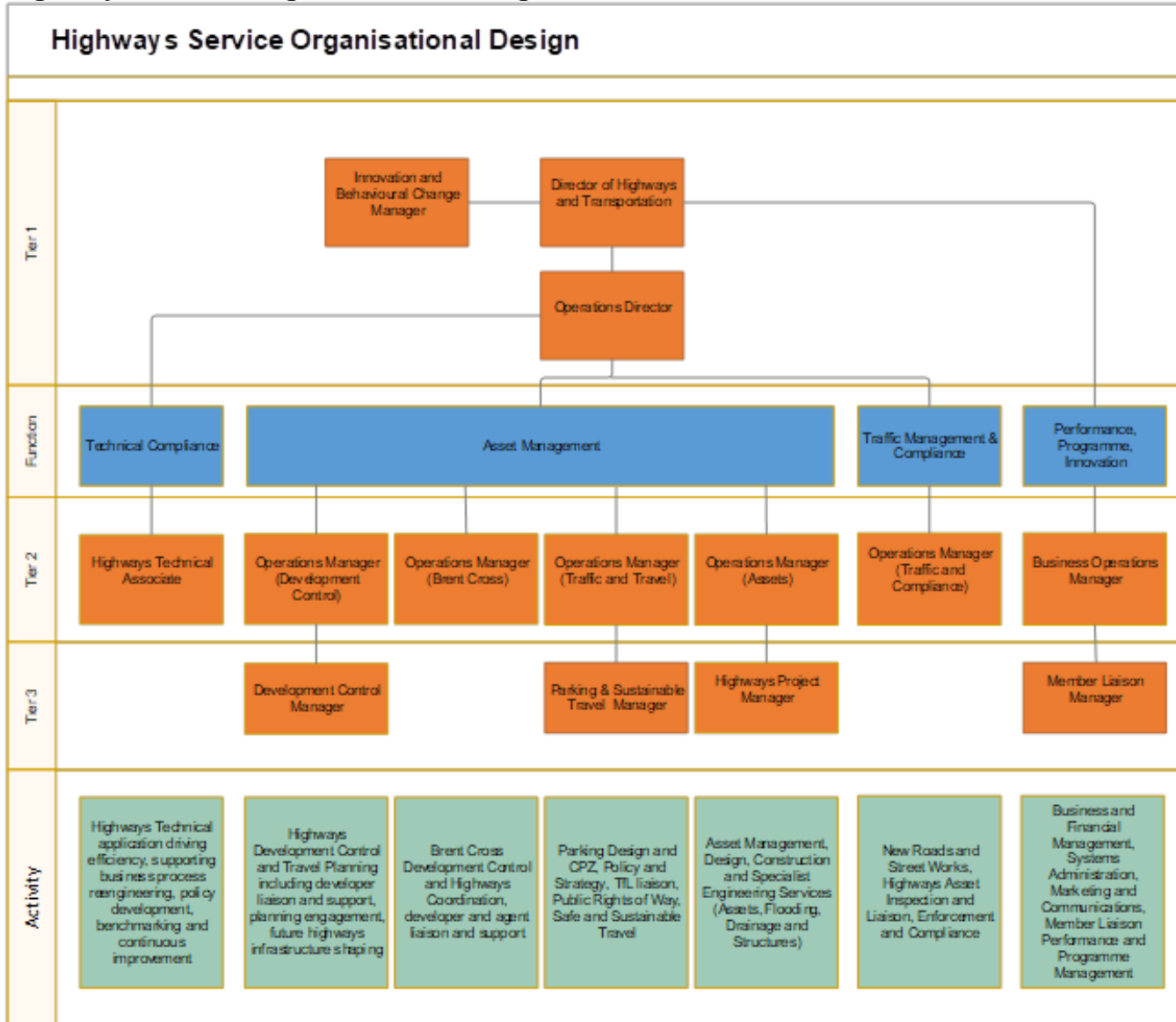
Highways Service - Mixed market service provision or “Mixed Economy” Model									
Function	Highway Reactive and Planned Maintenance	Highway Technical Compliance	Development Control	Traffic and Travel	Asset Management			Traffic and Compliance	Business Operations
Strategic Responsibilities	Operational / Construction	Policy / Design	Policy / Managing Agent	Policy / Design / Delivery	Design / Delivery	Delivery / Managing Agent	Policy / Design / Delivery	Policy / Managing Agent	Policy / Assurance
Activities	Construction	Technical support and benchmarking	Development Control	Parking Design & Sustainable Travel	Scheme Design	Construction Management	Structures Flood Engineering	Street Works & Carriageway and Footway Inspections	Project Management, Performance, Finance and Communications
Description	Highway’s maintenance provision, reactive and planned maintenance programmes	Highways Technical application driving efficiency, supporting business process reengineering, policy development, benchmarking, and continuous improvement	Highways Development Control and Travel Planning including developer liaison and support, planning engagement, future highways infrastructure shaping	Parking Design and CPZ, Policy and Strategy, TfL liaison, Public Rights of Way (PROW), Safe and Sustainable Travel	Asset Management Design	Asset Management Construction including the NRP and CIL delivery programme	Asset Management Specialist Engineering Services (Assets, Flooding, Drainage and Structures)	New Roads and Street Works, Highways Asset Inspection and Liaison, Enforcement and Compliance	Business and Financial Management, Systems Administration, Marketing and Communications, Member Liaison Performance and Programme Management
Drivers	Network management Network resilience Capital and	Asset management Planning services and commissioning	Asset management Development control Local economy	Planning and commissioning CPZ implementation Communications	Asset management Planning and commissioning Procurement	Asset management Planning and commissioning Procurement	Asset management Planning and commissioning Procurement	Asset management Network compliance and enforcement	Communications and customer relations Project management

Highways Service - Mixed market service provision or “Mixed Economy” Model									
Function	Highway Reactive and Planned Maintenance	Highway Technical Compliance	Development Control	Traffic and Travel	Asset Management			Traffic and Compliance	Business Operations
	Revenue programme delivery Carbon reduction	Procurement management Carbon reduction	support Income management Planning Carbon reduction	and customer relations Local economy support Carbon reduction	management Capital and Revenue programme VfM delivery Carbon reduction	management Capital and Revenue programme VfM delivery Carbon reduction	management Capital and Revenue programme VfM delivery Carbon reduction	VfM delivery Income management Carbon reduction	Budget setting and allocation VfM assurance
Primary Legislation	Highways Act 1980 New Roads and Street Work Act 1991	Highways Act 1980 Construction (Design and Management) Regulations 2015	Highways Act 1980 Town and Country Planning Act 1990	Road Traffic Act 1991 Traffic Signs Regulations and General Directions 2016	Highways Act 1980 Construction (Design and Management) Regulations 2015	Highways Act 1980 Construction (Design and Management) Regulations 2015	Highways Act 1980 Flood and Water Management Act 2010 Land Drainage Act 1991	Traffic Management Act 2004 Road Traffic Act 1991 New Roads and Street Work Act 1991	Highways Act 1980
Salary Risk	Medium	High	High	Medium	High	High	High	Medium	Medium
Primary Mixed Economy Delivery Provider	External provider	Highways Team	Highways Team	Highways Team	Highways Team	Highways Team	Highways Team	Highways Team	Highways Team
Risk Mitigation	Transferred risk: Construction, Materials,	Transferred risk: Sourcing finite specialist engineering	Transferred risk: Sourcing specialist commercial and	Transferred risk: Market analysis, Consultation, Design, PROW	Transferred risk: Sourcing finite specialist engineering	N/A	Transferred risk: Sourcing finite specialist engineering	N/A	N/A – within the LBB corporate estate

Highways Service - Mixed market service provision or “Mixed Economy” Model									
Function	Highway Reactive and Planned Maintenance	Highway Technical Compliance	Development Control	Traffic and Travel	Asset Management			Traffic and Compliance	Business Operations
	Plant and Subcontract supply chain	skills, resource peak management	engineering skills, resource peak management	paralegal rights of way and definitive map	skills, design liability, resource peak management		skills, design liability, resource peak management		
Secondary Mixed Economy Delivery Provider	Top-Up contract arrangements	Professional Services Partner	Professional Services Partner	Professional Services Partner	Professional Services Partner	N/A – compliance function needs to be direct delivered	Professional Services Partner	N/A – compliance function needs to be direct delivered	LBB Services Teams

Appendix 3:

Highways Service Organisational Design



Appendix 4:

High-level Glide Path Activities to September 2023

Year	2021/22	2022/23		2023/24
Outcomes	Quarter 4	Quarters 1 / 2	Quarters 3 / 4	Quarters 1 / 2
Improved Customer Satisfaction	Agree scope of highways service model. Development of communications and awareness plan.	Review and phased implementation of highways scope aligned to procurement strategy. Monitoring and refinement of communications plan and glide path plan.	Phased implementation of highways scope. Monitoring of communications plan and glide path plan.	Conclusion of highways scope aligned to procurement strategy. Monitoring of communications plan and glide path plan.
Finances	Development and sign off MTFS revenue and capital cashflow forecast to ensure cost certainty.	Undertake review of approach to funding and grant aiding aligned to policy hierarchy, asset condition & capacity to deliver. Implement CIL business cases. Forward plan for regeneration & infrastructure.	MTFS revenue and capital cashflow forecast aligned to Council budget setting. Highways financial transfer model developed by Council and Capita to enable smooth transfer.	Finalise financial transfer model and track to transfer September 2023. Model to factor in base costs and growth targets.
People	Review recruitment and retention approach aligned to the approved organisational structure.	Recruitment and retention approach aligned to Procurement Strategy and Partners to support operational delivery.	Continuation of recruitment and retention approach and associated communication with transferring teams.	Develop and implement people transfer plan with LBB and Capita aligned to Procurement Strategy.
Procurement	Conduct Procurement Audit and develop Procurement Strategy to underpin service delivery. Commence implementation of	Marketing, evaluation, and implementation of Procurement Strategy. Commence and conclude review of HMPF Framework	Implement Procurement Strategy and recommendations of HMPF Framework review aligned to operational delivery. Bed in	Refine project pipeline and ensure alignment with Procurement Strategy and Partners delivery capability.

Year	2021/22	2022/23		2023/24
Outcomes	Quarter 4	Quarters 1 / 2	Quarters 3 / 4	Quarters 1 / 2
	Procurement Strategy.	post Sept 23.	Partners.	
Project Management	Implementation of project management approach within service aligned to forward Project Pipeline. Confirm CIL Project Management support.	Development of approach to project management design and engineering services aligned to forward Project Pipeline, Procurement Strategy and Project Management	Bedding in of approach to project management design and engineering services.	Reporting against Project management approach aligned to transferring highways scope.
Digital Journey	Completion of Confirm Rollout, go live of Legacy Database and close down of Exor. Go live of SharePoint project management capability.	Confirm dashboard and reporting. Implement Internet of Things (IOT) flooding and drainage predictive planning. Business case and implementation of Self-Service customer model.	Confirm one year on review and forward plan aligned to one digital approach. Embedded dashboard and reporting methodologies.	Digital Platform business audit. Implementation of audit actions. Transfer of IT software and hardware to ensure business continuity.

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London Borough of Barnet
Environment Committee Work Programme
March-July 2022

Title of Report	Overview of decision	Report Of	Issue Type (Non key/Key/Urgent)
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8 March 2022

Controlled Parking Zone Permits Policy Position	For approval	Chairman of the Environment Committee	Non-Key
Flood and Water Management	Progress Report	Chairman of the Environment Committee	Non-key
Social Distancing Measures	For approval	Chairman of the Environment Committee	Non-key
Highways Infrastructure Safety Inspection Manual	For approval	Chairman of the Environment Committee	Non-key
Highway Material Palette	For approval	Chairman of the Environment Committee	Non-key
Highways Future Service Delivery Strategy	Strategy Post September 2023 for approval	Chairman of the Environment Committee	Non-key

9 June 2022

Review of the council's Adopted Domestic Vehicle Crossover Policy	For discussion	Chairman of the Environment Committee	Non-key
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Title of Report	Overview of decision	Report Of	Issue Type (Non key/Key/Urgent)
Welsh Harp – Progress Report	To include an executive summary of the roles and responsibilities of the groups involved	Chairman of the Environment Committee	Non-Key
To follow			
Review of Tennis Courts in Parks and Open Spaces	Seeking the Committee’s approval for the proposed operating and management model and investment programme for tennis courts in Barnet’s Parks and Open Spaces.	Chairman of the Environment Committee	Non-key

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