

# Traffic and Road Safety Advisory Panel AGENDA

**DATE:** Tuesday 26 June 2018

**TIME:** 7.30 pm

**VENUE:** Council Chamber, Harrow Civic Centre, Station Road, Harrow, HA1 2XY

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## **MEMBERSHIP** (Quorum 3)

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**Chair:** Councillor Jerry Miles

**Councillors:**

Jeff Anderson  
Sarah Butterworth  
David Perry

Christopher Baxter  
John Hinkley  
Ameet Jogia

**Advisers:**

Mr N Long  
Dr Anoop Shah

Mr A Wood

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## **Reserve Members:**

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1. Ghazanfar Ali
2. Peymana Assad
3. James Lee
4. Sasi Suresh

1. Vina Mithani
2. Lynda Seymour
3. Ramji Chauhan

**Contact:** Frankie Belloli, Senior Democratic Services Officer  
Tel: 020 8424 1263 E-mail: frankie.belloli@harrow.gov.uk

## **Useful Information**

### **Meeting details:**

This meeting is open to the press and public.

Directions to the Civic Centre can be found at:  
<http://www.harrow.gov.uk/site/scripts/location.php>.

### **Filming / recording of meetings**

The Council will audio record Public and Councillor Questions. The audio recording will be placed on the Council's website.

Please note that proceedings at this meeting may be photographed, recorded or filmed. If you choose to attend, you will be deemed to have consented to being photographed, recorded and/or filmed.

When present in the meeting room, silent mode should be enabled for all mobile devices.

### **Meeting access / special requirements.**

The Civic Centre is accessible to people with special needs. There are accessible toilets and lifts to meeting rooms. If you have special requirements, please contact the officer listed on the front page of this agenda.

An induction loop system for people with hearing difficulties is available. Please ask at the Security Desk on the Middlesex Floor.

**Agenda publication date: 18 June 2018**

# AGENDA - PART I

## 1. ATTENDANCE BY RESERVE MEMBERS

To note the attendance at this meeting of any duly appointed Reserve Members.

Reserve Members may attend meetings:-

- (i) to take the place of an ordinary Member for whom they are a reserve;
- (ii) where the ordinary Member will be absent for the whole of the meeting; and
- (iii) the meeting notes at the start of the meeting at the item 'Reserves' that the Reserve Member is or will be attending as a reserve;
- (iv) if a Reserve Member whose intention to attend has been noted arrives after the commencement of the meeting, then that Reserve Member can only act as a Member from the start of the next item of business on the agenda after his/her arrival.

## 2. DECLARATIONS OF INTEREST

To receive declarations of disclosable pecuniary or non pecuniary interests, arising from business to be transacted at this meeting, from:

- (a) all Members of the Panel;
- (b) all other Members present.

## 3. APPOINTMENT OF VICE-CHAIR

To appoint a Vice-Chair for the 2018/19 Municipal Year.

## 4. MINUTES (Pages 5 - 12)

That the minutes of the meeting held on 8 February 2018 be taken as read and signed as a correct record.

## 5. PUBLIC QUESTIONS \*

To receive any public questions received in accordance with Executive Procedure Rule 49 (Part 4D of the Constitution).

Questions will be asked in the order in which they were received. There will be a time limit of 15 minutes for the asking and answering of public questions.

**[The deadline for receipt of public questions is 3.00 pm, 21 June 2018. Questions should be sent to [publicquestions@harrow.gov.uk](mailto:publicquestions@harrow.gov.uk)**

**No person may submit more than one question].**

## 6. PETITIONS

To receive petitions (if any) submitted by members of the public/Councillors under the provisions of Executive Procedure Rule 47 (Part 4D of the Constitution).

## **7. DEPUTATIONS**

To receive deputations under the provisions of Executive Procedure Rule 48 (Part 4D of the Constitution).

A deputation has been received in respect of White House Drive, Stanmore: "To outline the severe parking issues on White House Drive which are having a detrimental impact of the safety and wellbeing of local residents".

## **8. APPOINTMENT OF ADVISERS (Pages 13 - 16)**

Report of the Director of Legal and Governance Services

## **9. INFORMATION REPORT - PETITIONS (Pages 17 - 26)**

Report of the Corporate Director, Community

## **10. INFORMATION REPORT - TRAFFIC AND PARKING SCHEMES 2018 /19: PROGRAMME UPDATE (Pages 27 - 46)**

Report of the Corporate Director, Community

## **11. INFORMATION REPORT - HARROW VIEW / HEADSTONE DRIVE JUNCTION IMPROVEMENT (GOODWILL TO ALL JUNCTION) - PROGRESS UPDATE (Pages 47 - 74)**

Report of Corporate Director, Community

## **12. ANY OTHER URGENT BUSINESS**

Which cannot otherwise be dealt with.

## **AGENDA - PART II - NIL**

### **\* DATA PROTECTION ACT NOTICE**

The Council will audio record item 4 (Public Questions) and will place the audio recording on the Council's website, which will be accessible to all.

[**Note:** The questions and answers will not be reproduced in the minutes.]

# TRAFFIC AND ROAD SAFETY ADVISORY PANEL MINUTES

## 8 FEBRUARY 2018

- Chair:** \* Councillor Kairul Kareema Marikar
- Councillors:** Jeff Anderson \* Manjibhai Kara  
\* John Hinkley \* Jerry Miles  
\* Ameet Jogia \* David Perry
- Advisers:** \* Mr N Long \* Mr A Wood  
\* Dr Anoop Shah
- In attendance:  
(Councillors)** Councillor June Baxter  
Councillor Graham Henson  
Councillor Barry Macleod-Cullinane  
Councillor Nitin Parekh

\* Denotes Member present

### 165. Attendance by Reserve Members

**RESOLVED:** To note that no Reserve Members had been nominated to attend the meeting.

### 166. Declarations of Interest

**RESOLVED:** To note that the following interests were declared:

Agenda Item 8: Parking Schemes Programme 2018-19, Agenda Item 9: TfL Local Transport Fund Schemes Programme 2018/19, Agenda Item 10: Information Report - Traffic and Parking Schemes Programme Update 2017/18

Councillor Kairul Kareema Marikar declared a non-pecuniary interest in that she lived in Wealdstone and certain schemes mentioned in the reports concerned this area. She would remain in the room whilst the matters were considered and voted upon.

Agenda Item 8: Parking Schemes Programme 2018-19, Agenda Item 9: TfL Local Transport Fund Schemes Programme 2018/19, Agenda Item 10: Information Report - Traffic and Parking Schemes Programme Update 2017/18

Councillor John Hinkley declared a non-pecuniary interest in that he was a ward councillor for areas in which traffic and parking schemes were under consideration. He would remain in the room whilst the matters were considered and voted upon.

Agenda Item 7: Information Report – Petitions, Agenda Item 8: Parking Schemes Programme 2018-19, Agenda Item 9: TfL Local Transport Fund Schemes Programme 2018/19, Agenda Item 10: Information Report - Traffic and Parking Schemes Programme Update 2017/18

Councillor Ameet Jogia declared a pecuniary interest in that he owned properties in Whitehouse Drive and Headstone Lane. He would leave the room whilst schemes affecting these roads were considered and voted upon. He also declared a non-pecuniary interest in that he was a ward councillor for Canons ward in which some traffic and parking schemes were under consideration. He would remain in the room whilst these matters were considered and voted upon.

Agenda Item 8: Parking Schemes Programme 2018-19, Agenda Item 9: TfL Local Transport Fund Schemes Programme 2018/19, Agenda Item 10: Information Report - Traffic and Parking Schemes Programme Update 2017/18

Councillor Manji Kara declared a non-pecuniary interest in that he lived in Wealdstone and certain schemes mentioned in the reports concerned this area. He would remain in the room whilst the matters were considered and voted upon.

Agenda Item 7: Information Report – Petitions

Councillor Nitin Parekh declared a non-pecuniary interest in that he lived in the area connected to the petitions concerning Lake View and Cavendish /Dorset Drive. He would remain in the room whilst the matters were considered and voted upon.

Agenda Item 7: Information Report – Petitions, Agenda Item 8: Parking Schemes Programme 2018-19, Agenda Item 9: TfL Local Transport Fund Schemes Programme 2018/19, Agenda Item 10: Information Report - Traffic and Parking Schemes Programme Update 2017/18

Councillor Graham Henson declared a non-pecuniary interest in that he was the Portfolio Holder for the Environment and would be making decisions in

response to recommendations from the Panel on items before them at this meeting. He would not participate in discussion of the items but would remain in the room whilst the matters were considered and voted upon.

#### **167. Minutes**

**RESOLVED:** That the minutes of the meeting held on 28 November 2017 be taken as read and signed as a correct record.

#### **168. Speaking at the Meeting**

**RESOLVED:** In accordance with Executive Procedure Rule 38.1.1 – Part 4D of the Constitution, the Panel agreed that the following Members could speak at the meeting:

<u>Councillor</u>	<u>Agenda Item</u>
June Baxter	8 – Parking Schemes Programme 2018-19 (West Street / Nelson Road area)
Barry Macleod-Cullinane	8 – Parking Schemes Programme 2018-19 (72-94 Lower Road)
Nitin Parekh	8 – Parking Schemes Programme 2018-19 (Camrose Avenue and Buckingham Road)

The Chair also suggested that, in view of the modest size of the agenda for the meeting, the Panel could consider allowing some contributions from members of the public. The Panel agreed to allow four members of the public to speak on Agenda Item 8 (Parking Schemes Programme 2018-19).

#### **169. Public Questions**

**RESOLVED:** To note that no public questions had been received for this meeting.

#### **170. Petitions**

No petitions were presented.

#### **171. Deputations**

**RESOLVED:** To note that no deputation requests had been received in accordance with the Council's Procedure Rules.

## RECOMMENDED ITEMS

### 172. Parking Management Schemes Programme 2018/19

The Panel received a report of the Corporate Director, Community concerning the identification, prioritisation, development and implementation of parking management schemes in the Borough; it provided information about requests for parking schemes received by the Council and also recommended a programme of work for 2018/19.

A Member was concerned that Buckingham Road, which had been the subject of a petition to full Council, had not been recommended for inclusion in the parking programme. He considered that the schemes which had been prioritised in the report might actually worsen the situation in Buckingham Road if implemented.

Another Member referred to the problem of overspill parking in the Lower Road area and the importance of regulating parking here for the benefit of both local residents and businesses. He underlined the need to protect the smaller residential roads from overspill parking and the importance of implementing a solution as soon as possible.

A Member expressed her support for the residents of the West Street / Nelson Road area who were suffering from the displacement of parking of other controlled parking zones (CPZs).

A resident spoke about the parking situation on the Hill and the need to regulate parking in West Street and Nelson Road. She referred to the impact of the conversion of larger properties to flats and new developments in the area. She was concerned that a poorly designed scheme might be unhelpful and that there could be displacement of parking to adjacent areas. The resident urged full consultation with local residents and businesses, and suggested that new flats created as a result of conversion or new developments could be excluded from a future parking scheme to manage demand.

A Member of the Panel acknowledged the strength of feeling among residents of Harrow-on-the-Hill about the CPZ; he pointed to the complexity of dealing with parking pressures as evidenced in the report on the agenda. He suggested that the process of consultation would help identify options for the effective review and amendment of schemes.

A resident of Oxford Road spoke about the proposed changes to the County Roads CPZ and the representations from local businesses on Pinner Road. While supportive of local shops and businesses, the resident pointed to the displacement impact on the small residential area between CPZ zones U and NH1.

A resident referred to the petition from residents of Cavendish Drive and Dorset Drive which had recently been supplemented with additional signatures and representations. There was considerable local concern over



the dangers and disturbance caused by the roads being used by large vehicles such as low loaders and for the sale and testing of vehicles. The resident queried whether these vehicles were licensed for these activities. Another resident added that letters had been sent to local MPs and the Council about the problems created by these commercial vehicles.

A Member spoke in support of the petition in respect of Cavendish Drive and Dorset Drive, referring to the longstanding efforts of local residents to resolve the parking problems in these roads. He underlined that the petition had proposed new timings for the parking controls which residents considered would improve the situation.

Another Member suggested that a pedestrian crossing was required on Merlin Crescent close to Camrose Primary School. He also referred to the junction of Camrose Road and Edgware Road asking that TfL be lobbied to address the treatment of this junction.

A Member of the Panel referred to the representations from residents in Eastleigh Avenue and Coles Crescent about parking controls. He relayed comments from a local ward councillor reporting the fact that many residents had contacted her about the parking pressures on the Rayners Lane Estate which had, in some instances, led to intimidatory behaviour and vandalising of vehicles. The Member of the Panel proposed an amendment to Recommendation 4 in the report to change the priority of the Eastleigh Avenue/Coles Crescent scheme from No.8 to No.6 so that it might be implemented in 2018-19 should funds become available during the year. This amendment was duly seconded and, when put to the panel, it was approved.

A Member of the Panel thanked officers for the priority given to the parking scheme at the Broadway, Hatch End which would help deal with pressures and would complement the application for "Purple Flag" status for the area in relation to its night-time economy. In this respect, he suggested that there be close liaison with licensing officers on licence applications and consents. The Member proposed that Leeway Close should be included in the proposed parking zone. He also suggested that consideration be given to a pedestrian crossing near the station, and that greater priority be accorded to the scheme for Milne Field and Grimsdyke Road.

**Resolved to RECOMMEND:** (to the Portfolio Holder for the Environment):

That

- (1) the list of parking management schemes for 2018/19 is as shown in **Appendix B** be approved, subject to confirmation of the capital funding allocation for 2018/19 by Cabinet,
- (2) officers be authorised to carry out scheme design and consultation on the parking management schemes listed in **Appendix B**,
- (3) officers be authorised to implement the parking management schemes listed in **Appendix B** subject to further reports being provided on the

outcomes of public and statutory consultation and receiving approval of the Portfolio holder to proceed,

- (4) any substantive new requests received to undertake a controlled parking scheme or review that are not included within the agreed programme or priority list in Appendices **B or C** in this report be referred to the Panel for consideration, subject to changing the priority of the Eastleigh Avenue/Coles Crescent scheme from No.8 to No.6 in Appendix C.

**Reason for Decision:** To recommend to the Portfolio Holder a proposed Parking Management Scheme programme for the 2018-19 financial year.

### **173. Transport for London Local Transport Fund Schemes 2018/19**

The Panel received a report from the Corporate Director, Community outlining the proposed programme of traffic schemes to be implemented through the £100,000 Local Transport Fund allocated to the London Borough of Harrow by Transport for London in 2018/19. Officers introduced the report, explaining that the list of schemes at Paragraph 2.7 of the report was not in any priority order and totalled about £130,000, leaving Members of the Panel to determine the final recommended schemes within the funds available.

A Member proposed the deletion of Gordon Avenue, Stanmore scheme (£25,000, at Item 5 of the list) and reduction of the “minor road safety measures” (Item 8) to £5,000, bringing the total costs with the £100,000 available. This proposal was duly seconded.

Another Member pointed out that the schemes at Items 1 and 3 of the list (Eastern Avenue and Common Road) would benefit private schools nearby and he considered that they should be asked to contribute to the costs involved. Officers advised that there would also be benefits to other road users and pedestrians, and the Council had a general duty as the highways authority to improve road safety. A Member suggested that officers could engage with the relevant schools to indicate the views expressed at the meeting.

In relation to the Common Road scheme, a Member considered that, at school run times, the average speed was well below 30mph and therefore the value of such a speed limit was restricted. Officers advised that there would still be benefits including the encouragement of cycling in the road. An Adviser to the Panel suggested that, in this location, only a separate cycle path on a widened, shared-use pavement would be effective.

In response to another Adviser’s query, it was confirmed that the pedestrian facility proposed for Eastern Avenue was a refuge rather than a formal crossing.

**Resolved to RECOMMEND:** (to the Portfolio Holder for the Environment)

That the following schemes be approved for funding via the Transport for London Local Transport Fund in 2018-19:

- Common Road - school safety scheme - £15,000
- Cecil Road - Extension of existing 20 mph zone - £15,000
- Eastern Avenue – construct new pedestrian refuge - £10,000
- Rayners Lane / Clitheroe Avenue / Quartz Court - improve access and road safety - £20,000
- Graham Road / Claremont Road / Ladysmith Road - walking scheme - £25,000
- Bessborough Road –pedestrian safety scheme following fatal incident - £10,000
- Requests for minor road safety measures such as new road markings or traffic signage including speed activated signs and zebrites (Halos around zebra crossing globes) - £5,000

**Reason for Decision:** In order for the Council to agree a programme of prioritised local schemes funded by the Local Transport Fund (£100,000) and allocated by Transport for London to the London Borough of Harrow within the 2018/19 financial year.

## **RESOLVED ITEMS**

### **174. Information Report: Petitions**

The Panel received a report of the Corporate Director, Community, which set out details of the petitions that had been received since the last meeting of the Panel and provided details of the Council’s investigations and findings where these had been undertaken.

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

### **175. Information Report: Traffic and Parking Schemes Programme Update 2017-18**

The Panel received a report from the Corporate Director, Community providing an update on progress with the 2017 /18 traffic and parking management programme of works, including schemes funded by Transport for London (TfL) and schemes in Harrow’s Capital Programme.

In relation Paragraph 2.16, an Adviser pointed out that bus routes H9 and 395 had been omitted.

In response to a Member’s queries, officers advised that the “London Road” scheme was not in Stanmore and that it was not yet clear when the Harvey Road scheme would be completed (officers would inform the Member in respect of this scheme).

An Adviser to the Panel considered that the Quietway programme included only low intervention schemes to help cyclists. He referred to the Council's 2013 vision for a network of cycle paths as more suitable, though this had not secured funding. The Adviser reported on other boroughs' bids for Liveable Neighbourhoods funding to implement measures such as bollards to protect residential streets; he felt that Harrow's bid had been disappointing in that it did not offer segregated cycle paths or the removal of motor vehicle from certain roads. He called on the Council to produce an improved bid, for example, as part of the Wealdstone/Civic Centre project.

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

**176. Any Other Urgent Business**

As this was the last meeting of the Panel in the current Administration, a Member wish to thank the Panel, its officers and Advisers for the work over the previous four years.

(Note: The meeting, having commenced at 7.32 pm, closed at 8.52 pm).

(Signed) COUNCILLOR KAIRUL KAREEMA MARIKAR  
Chair

**REPORT FOR: TRAFFIC AND ROAD  
SAFETY ADVISORY PANEL**

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<b>Date of Meeting:</b>	26 June 2018
<b>Subject:</b>	Appointment of Advisers to the Panel 2018/19
<b>Key Decision:</b>	No
<b>Responsible Officer:</b>	Hugh Peart, Director of Legal and Governance Services
<b>Portfolio Holder:</b>	Councillor Varsha Parmar, Portfolio Holder for the Environment
<b>Exempt:</b>	No
<b>Decision subject to Call-in:</b>	Yes (following consideration by the Portfolio Holder)
<b>Enclosures:</b>	Appendix 1 – Nominations Received

**Section 1 – Summary and Recommendations**

This report advises Members about the appointment of advisers to the Panel for the 2018/19 Municipal Year. Members are requested to consider the report and agree the nominations.

**Recommendations:** That the Panel recommend to the Portfolio Holder for the Environment that the nominations for Advisers to the Panel set out at Appendix 1, be agreed.

**Reason: (For recommendation)**

To appoint advisers to the Panel for the 2018/19 Municipal Year, to assist in the work of the Panel.

## **Section 2 – Report**

- 2.1.1 Rule 35.4 of the Executive Procedure Rules of the Constitution provides for the appointment of advisers assist in the work of the Panel either generally or on specific matters.
- 2.2 The Panel appointed advisers to assist with its work for the Municipal Year 2017/18 and this term has now expired. Existing advisers have been contacted and asked to confirm whether they wish to continue to act as advisers to the Panel for the 2018/19 Municipal year.
- 2.3 The following nominations for the 2018/19 Municipal Year have been confirmed:
- (1) Mr Anthony Wood, representing the interests of public transport users and nominated by Harrow Public Transport Users' Association (HPTUA);
  - (2) Dr Anoop Shah, representing cyclists interests and nominated by Harrow Cyclists;
  - (3) Mr Nigel Long, nominated by the Harrow Association of Disabled People.

### **Financial Implications**

- 2.4 There are no financial implications arising from this report.

### **Risk Management Implications**

- 2.5 If not appointed, the Panel may not have access to external expert advice from suitably qualified persons when conducting its business.

### **Equalities implications**

- 2.6 Contributes to the Council's fulfilment of its Public Sector Equality Duty.

### **Corporate Priorities**

- 2.7 Contributes to the following Corporate Priority: 'Making a difference for communities', by enabling representation from the voluntary & community sector in Harrow on an advisory panel of the Executive.

### Section 3 - Statutory Officer Clearance

Name: Jessie Man	<input checked="" type="checkbox"/>	on behalf of the Chief Financial Officer
Date: 13 June 2018		
Name: Andrew Lucas	<input checked="" type="checkbox"/>	on behalf of the Monitoring Officer
Date: 13 June 2018		

### Section 4 - Contact Details and Background Papers

**Contact:** Frankie Belloli, Senior Democratic & Electoral Services Officer  
Tel: 020 8424 1263

**Background Papers:** The Council's Constitution, Report to TARSAP meeting held on 23 June 2011, Portfolio Holder Decision (PHD) 002/11

## **Appendix 1 – Nominations Received**

- 1. Harrow Public Transport Users Association (HPTUA)** - Established group looking after all public transport users' interests within the Borough of Harrow.

Further info - <https://www.careplace.org.uk/Services/4632/Harrow-Public-Transp>

### **Nominee**

Mr Anthony Wood, Chairman of the HPTUA, has served on the Panel since 2006.

- 2. Harrow Cyclists** - The Harrow Cyclists are a cycle campaign group whose aim is to encourage cycling in North West London. The group organise the following activities: a rides calendar; social nights; working with the council to make Harrow roads more bike friendly; helping with bicycle maintenance.

Website - <http://www.harrowcyclists.org.uk/>

### **Nominee**

Dr Anoop Shah, Secretary of Harrow Cyclists - Has served on the Panel since 2013.

- 3. Harrow Association of Disabled People** – Works to promote and bring about inclusion and equality for all disabled people in all areas of life.

### **Nominee**

Mr Nigel Long, CEO of HAD – Has served on the Panel since 2016

Website - <http://www.had.org.uk/>



**REPORT FOR: Traffic and Road Safety  
Advisory Panel**

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**Date of Meeting:** 26<sup>th</sup> June 2018

**Subject:**

- 1) Eastcote Road - Request for pedestrian crossing
- 2) Chandos Crescent / Methuen Road - objection to CPZ
- 3) The Heights - Request for traffic calming
- 4) Westfield Drive / Westfield Gardens – request for parking controls
- 5) Kenton Park Avenue – Request for double yellow lines
- 6) Northolt Road – Request for CPZ
- 7) Handel Way - Request for double yellow lines
- 8) Kelvin Crescent / Charlwood Close - Request for waiting restrictions

**Responsible Officer :** Paul Walker – Corporate Director, Community

**Exempt:** No

**Wards affected:** Pinner South, Edgware, Marlborough, Kenton East, Roxeth

**Enclosures:** None

## **Section 1 – Summary**

This report sets out details of the petitions that have been received since the last TARSAP meeting and provides details of the Council's investigations and findings where these have been undertaken. The status of some of the petitions may have changed since the report was drafted because of the timescale in obtaining necessary report approvals.

### **FOR INFORMATION**

## **Section 2 – Report**

### **Petition 1 – Eastcote Road - request for pedestrian crossing.**

- 2.1 A petition containing 67 signatures was received by the Council on 1st February 2018. The petition states:

*“We would like to draw your attention to a very dangerous crossing point for pedestrians at the bottom of Eastcote Road, Pinner. There is a busy roundabout at the junction where Eastcote Road meets Marsh Road in Pinner. Owing to the lack of a safe crossing here, both adults and children are regularly putting themselves in danger by having to cross this busy roundabout junction, especially during peak hours when children and adults are going to school ( West Lodge School, Reddiford School, Nower Hill School) and work using Pinner Bus stops and underground stations.*

*We the residents of Harrow and Pinner urgently require a safe point to cross Eastcote Road (towards the Pinner end of Eastcote Road, where it meets March Road). As a result we are requesting Harrow Council to implement either a zebra crossing or a pelican crossing. We urge Harrow Council to take this request seriously as this could potentially save lives and prevent a serious accident from happening.”*

- 2.2 New zebra or controlled pedestrian crossings are implemented using funds provided by Transport for London via the Council's Local Implementation Plan (LIP) programme which sets out the Council's main priorities to support the Mayor for London's Transport Strategy.
- 2.3 The Panel has agreed assessment criteria for assessing requests for controlled crossings, such as zebra crossings, to ensure resources are used to best effect. Each site is surveyed and the results assessed against the criteria to identify the most suitable locations that are a priority.
- 2.4 Factors which are considered within the criteria include the number of people crossing at that location, traffic volumes, speeds and the level of personal injury accidents.

- 2.5 Surveys were undertaken in line with this criterion and unfortunately the site did not meet the threshold score for intervention.
- 2.6 In light of the concerns raised however the Council's transport consultants have been commissioned to consider if there are other measures which could benefit pedestrians in the area such as pedestrian refuges or dropped kerbs with tactile paving. This work is ongoing at present.

**Petition 2 – Chandos Crescent / Methuen Road – objection to proposed Controlled Parking Zone (CPZ).**

- 2.7 A letter and petition containing 9 signatures was received by the Council on 3<sup>rd</sup> February. The letter states:

*“We are writing you with regards to the above reference DP2017-27 for proposed controlled parking zone – Chandos Crescent / Methuen Road (O)*

*We are currently residing in Weston home new build development on Zodiac Close which is just behind Methuen Road and alongside the canal footpath. In our development, there are quite a few members who don't have resident's parking space, are using Chandos Crescent and Methuen Road to park the cars regularly. They are the closest road for us to park our car.*

*We understand that the residence in Chandos Crescent / Methuen Road may have some issues with traffic and parking spaces but they are surely because of other people who work nearby offices / shops and regularly park their car on these streets during business time.*

*Moreover the residence of Chandos Crescent / Methuen Road really don't need parking space as most of the residences have their private drive way.”*

*The proposed parking restriction days and time which you are proposing as Mon – Sat 8:30am – 8:30pm will severely affect us to park our cars after working hours. It will create huge problem for us to park our cars as there won't be any streets available nearby to park on a regular basis. Our request would be that the parking restriction should be Mon – Friday 09:00am -12:00pm which will resolve our problem in parking our cars outside of business hours. This will significantly reduce traffic issue and restrict non Harrow Council people to parking their cars.*

*If you are finding any problem to change the proposed parking restrictions, we would like you to consider us to apply for parking permit. As most of the residents in Chandos Crescent / Methuen Road have their own drive way so we believe they shouldn't have any issue in parking their cars.*

- 2.8 Zodiac Court is located in an area of good public transport accessibility and is subject to permit restrictions as a consequence of the development

control process in an effort to minimise the impact of on-street parking in the surrounding roads and also to try to encourage a reduction in car ownership in accordance with the requirements of the London Plan and Local Development Framework. The areas around this development have good public transport accessibility and other local amenities, meaning that it has been determined that the majority of residents would not necessarily need to own a private car.

- 2.9 As a point of information the Council, as the highway authority, is not required and has no obligation to provide any on-street parking for any resident or motorist on the public highway. The Council will allow parking on any unrestricted areas of the public highway where it is safe to do so and this is a consistent approach in common with other boroughs. It is then a matter for the driver to decide where to park legally and safely.
- 2.10 Like most of the CPZ`s in Harrow such schemes are installed primarily to deal with long stay parking by commuters or non-residents during the working week to free up parking space for local residents. This is done in a manner that is as convenient as possible for the local residents that allows unrestricted parking in the evening and weekends but limits the parking of non-permit holders at certain times during the day when controls are operating.
- 2.11 All comments, representations, objections and petitions relating to this scheme were discussed with local councillors and the Portfolio Holder for Environment before a final decision was made by the PH to proceed with the scheme.

### **Petition 3 – The Heights – Request for traffic calming**

- 2.12 A letter / petition containing 91 signatures were received by the Council on 27th February. The letter states:
- “We the undersigned are seriously concerned about the speed of traffic along the Heights, which is making it extremely dangerous for residents when crossings the road, or when trying to enter or leave our driveways. We therefore request that the council introduce traffic calming measures along the Heights.”*
- 2.13 The problems highlighted are unfortunately common at numerous locations throughout the borough. As a consequence the Council receives a considerable number of requests for safety measures to address these local concerns. The funds available to the Council for traffic / parking schemes are, however, limited and therefore the Panel has agreed a set assessment criteria for considering these requests and prioritising the most urgent safety issues.
- 2.14 The assessment criteria considers factors such as personal injury accidents (most heavily weighted, usually accounting for some 60% of the total points), traffic flows, traffic speeds, number of heavy goods vehicles, sensitive land uses, road widths (e.g. schools, parks) and whether the street is on the cycle network.

- 2.15 This request has been assessed in line with this criterion and traffic speeds were recorded over a 24 hour one week period in March. The results indicated that the 85% tile speed was 29.5 mph in both directions. Traffic speed information is reported as an 85<sup>th</sup> percentile speed and is a nationally recognised measurement used by traffic and transport professionals in the UK. This is the highest speed recorded in a survey after discounting the top 15% of speeds in a sample and is judged to be the most representative speed measurement to use when reviewing the prevailing traffic conditions.
- 2.16 The most up to date personal injury accident data has been examined which revealed that there were no speed related personal injury accidents there within the last three years. A three-year period of study is the standard nationally, by which traffic engineers assess the frequency of road accidents and identify particular accident trends for the purpose of assessing road safety and for making comparisons with other areas.
- 2.17 The assessment therefore concluded that the site does not meet the criteria for intervention however injury accidents are regularly monitored an should circumstances change this request may be revisited in the future.
- 2.18 The Council is working with local Police regarding an initiative known as “Community Road watch”. Community Road Watch which gives local residents the opportunity to work side by side with their local police teams, and use speed detection equipment to identify speeding vehicles in their communities.
- 2.19 Warning letters are issued where appropriate, and the information gathered can help to inform the future activity of local Police teams. Our Senior Road Safety Officer will liaise with the Police to include The Heights on the list of sites for their consideration.

**Petition 4 – Westfield Drive / Westfield Gardens – request for parking controls**

- 2.20 A petition containing 120 signatures was received by the Council on 27th February. The letter states:

*“The junction of Westfield Drive and Kenton Road is very busy coupled with inconsiderate parking. This makes movement of vehicles at the junction very difficult. In worst case scenario, emergency vehicles from Kenton Road would be unable to gain access. This is a very worrying thought and we fear it may become a reality resulting in unwanted serious incident.*

*The junction of Westfield Garden and Westfield Drive is unmarked. This results in drivers trying to pass the junction without due care and attention. This results in abusive and aggressive behaviour of drivers disturbing the peace and quiet of the area.*

*The Westfield Drive and Westfield Gardens are seen as some drivers as rat run to and from Kenton Road to avoid the width restriction on Charlton Road. The narrow road and parked vehicles on the road results in unwanted traffic chaos on the streets.*

*The above problems are a great source of concern and worry for us residents of these residential streets.*

*We the undersigned residents beseech the Harrow Council to evaluate the situation and introduce appropriate control measures/ controls.”*

- 2.21 This request will be assessed as a part of the local safety parking schemes programme (LSPP) using assessment criteria agreed by the Panel. The assessment criteria for all such requests includes such factors as traffic flows/speeds, pedestrian flows, occurrence of personal injury accidents, the degree to which parking affects access/visibility and the nature of the request.
- 2.22 If the threshold score required for intervention is satisfied a scheme will be added to the programme and will be batched and then progressed through design, consultation and implementation phases.

#### **Petition 5 – Kenton Park Avenue – Request for double yellow lines**

- 2.23 A petition containing 68 signatures was received by the Council in February. The letter states:

*“The corner on both sides of House numbers 43 – 51 Kenton Park Avenue, Harrow has had several incidents of vehicles nearly colliding due to blind spots caused by obstructed view due to vehicles parked around both bends. Residents living around the corners encounter great difficulty when driving out into the road from their houses due to obstruction by vehicles parked on the corners.*

*Double yellow lines should be marked around the bends from number 43 - 51 and on the opposite side from house number 30 – 32 and beyond to be extended further. The council should ensure proper safety of residents and all road users around the bends by imposing double yellow lines as stated above.”*

- 2.24 This location was initially highlighted by a local councillor several years ago highlighting the need for double yellow lines on the inside section of the bend in Kenton Park Road. This was confirmed following a site visit where parking on the inner bend was observed to impede visibility for drivers coming from both approaches.
- 2.25 Parking by a van was also observed on the outer side of the bend however this was deemed not to have a considerable impact on visibility or cause any obstruction on the highway. Subsequently double yellow lines (DYL) were implemented only on the inside of the bend and this appears to have improved visibility and assess at this location.

- 2.26 Since then a subsequent request for additional double yellow lines on the outside of the bend was received via the petition above and assessed using the agreed procedure for assessing small localised requests for parking measures agreed previously by this panel and unfortunately the site did not reach the required threshold score for intervention.
- 2.27 A response has been sent to the lead petitioner explaining the outcome of the assessment and advising that the Council will monitor the situation to see if the issue persists and if necessary we will carry out a further assessment.

### **Petition 6 – Northolt Road – Request for Controlled Parking Zone**

- 2.28 A petition containing 15 signatures was received by the Council in April. The letter states:

*“We the undersigned petition the council to implement a RESIDENTS ONLY PARKING SCHEME to a distinct area of unrestricted on street parking on Northolt Road HA2 8JD.”*

*As residents and homeowners, we are continually inconvenienced by the very limited on road parking available on this distinct portion of Northolt Road due to non-residents using the unrestricted parking in front of our homes and the newly implemented parking restrictions on Torrington Drive. A number of non-residents take up a large portion of the parking available on Northolt Road, resulting in residents of the street unable to park their cars within the on-street parking facilities available.”*

- 2.29 The request has been added to the list of requests to be presented to the panel in the annual parking management report which will be considered at the meeting scheduled for February 2019. As members are aware all of the requests for parking schemes received during the year or already on the list for consideration will be assessed against standard assessment factors agreed by TARSAP. The schemes will be ranked in order of priority and a suggested programme of schemes presented to the panel for their consideration and prioritisation for the year ahead.

### **Petition 7 – Handel Way, Edgware – Request for double yellow lines**

- 2.30 A petition containing 30 signatures was received by the Council in May. The petition states:

*“We the residents of Handel Way are requesting that double yellow lines be installed at the corner of Whitchurch Lane and Handel Way. It is difficult to get in and out of the road when cars and vans are parked on both sides and block the view of oncoming traffic. This is dangerous as you often have to wait on the main road for a long time before turning in and dangerous in terms of not being able to view the main road when leaving Handel Way.”*

- 2.31 This request will be assessed as a part of the local safety parking schemes programme (LSPP) using assessment criteria previously agreed by the

Panel. The assessment criteria for all such requests includes such factors as traffic flows/speeds, pedestrian flows, occurrence of personal injury accidents, the degree to which parking affects access/visibility and the nature of the request.

- 2.32 If the threshold score required for intervention is satisfied a scheme will be added to the programme and will be batched and then progressed through design, consultation and implementation phases.

**Petition 8 - Kelvin Crescent / Charlwood Close - Request for waiting restrictions**

- 2.33 A letter / petition containing 12 signatures were received by the Council on 27th February. The letter states:

*“The ask from residents is to have clear road markings which will enable cars to be parked appropriately per the traffic regulations. Absence of markings makes it difficult for residents to access the garage areas of Charlwood Charlwood Close Mgmt which is private land.”*

- 2.34 This request will be assessed as a part of the local safety parking schemes programme (LSPP) using assessment criteria previously agreed by the Panel. The assessment criteria for all such requests includes such factors as traffic flows/speeds, pedestrian flows, occurrence of personal injury accidents, the degree to which parking affects access/visibility and the nature of the request.
- 2.35 If the threshold score required for intervention is satisfied a scheme will be added to the programme and will be batched and then progressed through design, consultation and implementation phases.

**Section 3 – Further Information**

- 3.1. The purpose of this report is to inform the Panel about any new petitions received since the last meeting. No updates on the progress made with previous petitions will be reported at future meetings as officers will liaise with the Chair of TARSAP and the Portfolio Holder directly regarding any updates.

**Section 4 – Financial Implications**

- 4.1. There are no direct financial implications. Any suggested measures in the report that require further investigation would be taken forward using existing resources and funding.



## Section 5 - Equalities implications

- 5.1 The petitions raise issues about existing schemes in the traffic and transportation works programme as well as new areas for investigation. The officer's response indicates a suggested way forward in each case. An equality impact assessment (EqIA) will be carried out in accordance with the current corporate guidance if members subsequently decide that officers should develop detailed schemes or proposals to address any of the concerns raised in the petitions.

## Section 6 – Council Priorities

- 6.1 The funds allocated by TfL and Harrow for transport improvements will contribute to achieving the administration's priorities:

- Making a difference for the vulnerable
- Making a difference for communities
- Making a difference for local businesses
- Making a difference for families

## Section 7 - Statutory Officer Clearance

Name: Jessie Man	<input checked="" type="checkbox"/>	on behalf of the Chief Financial Officer
Date: 11/06/2018		

<b>Ward Councillors notified:</b>	<b>YES</b>
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## Section 8 - Contact Details and Background Papers

### Contact:

Barry Philips

Tel: 020 8424 1437, Fax: 020 8424 7662, E-mail: [barry.philips@harrow.gov.uk](mailto:barry.philips@harrow.gov.uk)

### Background Papers:

Previous TARSAP reports

Decision Notices

Public and statutory consultation documents highlighted in the report

Petitions

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**REPORT FOR: Traffic And Road Safety  
Advisory Panel**

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<b>Date of Meeting:</b>	26 <sup>th</sup> June 2018
<b>Subject:</b>	<b>INFORMATION REPORT</b>  2018 /19 Traffic and Parking Schemes Programme update
<b>Responsible Officer:</b>	Paul Walker – Corporate Director, Community
<b>Exempt:</b>	No
<b>Wards affected:</b>	All
<b>Enclosures:</b>	<b>Appendix A</b> - Parking management programme 2018/19 <b>Appendix B</b> - Transport for London programme 2018/19 <b>Appendix C</b> - Wealdstone Square

## **Section 1 – Summary**

This information report is presented to Members to provide an update on progress with the 2018 /19 traffic and parking management programme of works. This includes schemes funded by Transport for London (TfL) and schemes included in Harrow's Capital Programme. The information contained in this report reflects the latest position at the time of writing this report.

### **FOR INFORMATION**

## **Section 2 – Report**

### **General**

- 2.1 This information report provides members with an update on the current programme of transport schemes and initiatives funded in the 2018/19 programme. This includes schemes funded by Transport for London grant and the Harrow capital programme. **Appendix A and B** provides a summary of progress with all the schemes within the current programme.
- 2.2 More detail on certain schemes is provided below in the body of the report where they have reached the public consultation, statutory consultation or implementation stages and any other specific issues of interest to members.

### **Harrow Capital 2018/19**

#### **Parking management programme**

- 2.3 The Parking Management Schemes Programme for 2018/19 was agreed and approved by TARSAP in February. The current status of each scheme in the programme is shown in Appendix A.

The programme is as follows;

- Kenmore Avenue / Christchurch Avenue – roads to the east of the Leisure Centre, carry over from last year's scheme. Now proceeding to statutory consultation.
- The Broadway, Hatch End – Service roads possible Pay and display bays – initial design
- CPZ zone TB, Canons - area review – initial design
- 72-94 Lower Road, Harrow on the Hill – initial design
- West Street / Nelson Road area, Harrow on the Hill – initial design, meeting with Forum
- Whitchurch Gardens area, Canons – initial design

### Localised Safety Parking Schemes Programme (LSPP)

- 2.4 This programme is concerned with localised sites where minor parking problems occur. Typically remedial measures consist of proposals for single or double yellow lines at junctions, bends and narrow sections of road in order to improve vehicular access or improve road safety. These measures also reinforce the well-established principles set out in The Highway Code. This is an on-going rolling programme of works and members and the Portfolio Holder will be advised of the locations included in the programme during the course of the year.

### Transport for London – Local Implementation Plan (LIP) Programme

- 2.5 The majority of the 2017-18 LIP funded schemes have now been delivered.

#### 2018-19 Schemes

##### LIP - 20 mph zone programme

- 2.6 All our existing 20 mph zones are designed to be self-enforcing without relying on police enforcement and so most schemes include traffic calming measures, such as speed cushions or kerb build outs, in order to ensure a majority of motorists comply with the 20 mph speed limit. There is a budget of £130,000 this financial year for three 20 mph zone extensions to existing zones in streets surrounding the schools listed below. Progress with these schemes is as follows:

##### Whitefriars School (20mph zone) - extension of existing zone

- 2.7 This scheme has been passed to our consultants for initial design and investigation for delivery this financial year. The extension will focus on the Cecil Park area.

##### Cedars Manor School (20mph zone) - extension of existing zone

- 2.8 This scheme has been passed to our consultants for initial design and investigation for delivery this financial year. The zone extension will focus on the Boxtree Lane area.

##### Kenmore Park School (20 mph zone) - extension of existing zone

- 2.9 This scheme has been passed to our consultants for initial design and investigation for delivery this financial year. The zone extension will focus on the Rowland Avenue area.

##### LIP - Local Safety Schemes (LSS)

2.10 This programme of work is focussed on reducing Killed and Seriously Injured (KSI) accidents throughout the borough in line with the Mayor for London's vision zero transport strategy for deaths and serious injuries from all road collisions to be eliminated from the streets by 2041.

2.11 There is a budget of £100,000 this year for three local safety schemes which include:

- Alexandra Avenue
- Oxhey Lane / Uxbridge Road roundabout junction,
- Pinner Road (between Station Road and Headstone Lane).

The Council's transport consultant is currently carrying out an initial analysis of all personal injury accident at these locations and developing outline proposals to deal with these accidents.

#### LIP - Bus Priority schemes (BP)

2.12 Harrow Council works closely with Transport for London (TfL) and their consultants to make bus services a more attractive and reliable mode of transport by promoting the use of public transport and improving the highway infrastructure to facilitate bus routes and bus movements. The following areas have been highlighted in this year's programme for improvements:

- Pinner Road , North Harrow – potential junction widening
- College Road - bus / cycle only trial

2.13 These schemes have been passed to our transport consultants for initial design and investigation for delivery this financial year.

#### LIP - Bus Stop Accessibility

2.14 The bus stop accessibility programme is recognised as a crucial element in the drive to improve the quality of bus services. Currently the borough is 99% compliant and we are one of only a few boroughs in London with such a high percentage of compliant bus stops.

2.15 Various bus stops are being reviewed for improvements based on ad hoc requests from TfL, bus operators or other stakeholders. TfL has confirmed that additional monies are available to complete the programme and the Council will be pursuing this further.

#### LIP – Freight Management Schemes

2.16 In this year's programme it is intended to continue the work we have been doing to review the existing lorry ban (weight limit restriction) areas in the borough with regard to their extents, level of compliance and enforceability. Currently these areas are very large and impractical to enforce and this review will consider alternative designs which could be more easily enforced

and protect residential streets on non-through routes more effectively. This will involve checking the existing entry and exit signing.

- 2.17 In addition we are carrying out a review with neighbouring boroughs and TfL of how they carry out enforcement of their lorry bans.

#### LIP - Legible London

- 2.18 Pedestrian way finding signs will be provided in Hatch End, Broadway and Bentley Priory Museum and open space, Stanmore Country Park and Recreation Park. The provisional artwork and site locations are currently being reviewed. Works will be issued to the contractor once agreed with TfL and it is anticipated that the signs will be installed by February 2019.

#### LIP - Cycling schemes (CS)

- 2.19 The Council allocation for cycling in the TfL LIP programme is £200k this will allow us to develop cycle schemes in line with our adopted cycle strategy.

#### CS - Jubilee Cycle Route

- 2.20 The Council's transport consultant has been commissioned to design measure along this route which links Stanmore and Queensbury underground stations.
- 2.21 The measures consist of low to medium interventions such as junction improvements/ entry treatments, off road shared /segregated footways, potential pathway improvements through green spaces and reallocation of road space where permissible.

#### TfL Quiet way route Harrow Weald – Kenton Road (via Harrow and Wealdstone Town centres)

- 2.22 TfL have been working with the boroughs and Sustrans, a charitable cycling organisation, to assist the Mayor for London to identify a "Quiet way" network across London. Quiet ways routes are intended to form a network of radial and orbital cycle routes designed to overcome barriers to cycling and target cyclists who want to use quieter, low-traffic routes that provide an environment for those cyclists who want to travel at a gentler pace.
- 2.23 Sustrans are now in the process of developing this route further in accordance with their Quiet way Delivery Programme (QDP) criteria. The route starts at the Kenton Road and runs between Harrow and Wealdstone to centres up to Harrow Weald.

#### E Bike Trial

- 2.24 Harrow Council is partnering with West Trans to provide e-bikes on trial basis (up to six months) to Council staff. The aim is to see if e-bikes can play a role in shifting to sustainable modes transport.

- 2.25 A scoping document is being prepared and we are looking to coincide the start of the trial with national bike week. (9th to the 17th of June)

LIP - Local Transport Fund (LTF) 2018/19

- 2.26 The TfL award for funding in 2018/19 included a local transport funding allocation of £100,000. This budget is allocated to boroughs through the Local Implementation Plan (LIP) funding process. The funds must be used for transport purposes broadly consistent with the Mayor's Transport Strategy and the borough's LIP. Members agreed a programme of LTF schemes at the February 2018 TARSAP meeting.

LTF – Common Road – 20 mph and safety around Krishna Avanti School

- 2.27 The plans are to improve safety around the school by reducing the existing speed limit from 40mph to 30 mph on both approaches to the school entrance, erecting school warnings signs and flashing “watch your speed signs”, installing “School Keep Clear” markings and new road markings to highlight the school entrance.

- 2.28 Initial design is underway including speed and traffic volume surveys.

LTF – Rayners Lane –Junction improvement

- 2.29 This scheme involves removing existing ineffective mini roundabout and replacing it with a priority junction. Design work is underway and consultation will happen within the next few months.

LTF – Bessborough Road – Pedestrian Crossing improvements

- 2.30 Widened the existing splitter island in Bessborough Road close to Whitmore Avenue and introduce dropped kerbs, tactile paving and waiting restrictions. The initial design is underway

LTF – Eastern Avenue – Pedestrian refuge

- 2.31 Provide a pedestrian refuge to assist pedestrians crossing road, notably to access Pinner High School and nearby bus stops. The initial design is underway

LTF - Graham Road / Claremont Road / Ladysmith Road - walking scheme

- 2.32 Introduce Copenhagen style entry treatments at the junctions listed above and the High Street (A409) – initial design

LTF - Minor safety measures, road markings / traffic signs

- 2.33 The council receives many requests each year from local residents and other stakeholders for localised measures to improve road safety. Not all requests



meet our criteria for traffic calming measures such as road humps, chicanes etc. and so this programme of work will be used throughout the year to address minor local safety concerns that are not prioritised for more major interventions but could benefit from minor works. This is an on-going programme mainly involving new road markings and road signs

#### LIP Walking Projects (WP)

Honeypot Lane – proposed pelican crossing (between Broadcroft Avenue and Dalston Gardens). Implementation is planned later in the summer.

- 2.34 Detailed investigations and surveys are completed and the final scheme is being agreed in consultation with the TfL signals team. The scheme is scheduled for delivery this financial year.
- 2.35 Eastcote Lane, Pinner – considering improving pedestrian facilities close to the junction with Marsh Lane – This request has been passed to our transport consultants for further investigation. Initial investigation revealed the site does not meet our criteria for traffic signals or a formalised controlled pedestrian crossing.
- 2.36 Harrow on the Hill by the green. We will consider walking improvements in that area to allow better access to the green central area near the former old Red Lion pub site.

#### LIP - Congestion Relief schemes

- 2.37 Traffic congestion occurs when the demand to make journeys gets close to or exceeds the network capacity and is characterised by slower speeds, longer journey times, and vehicle queues. This programme of work seeks to identify areas of the network where improvements can maximise network capacity by removing blockages and ensuring that traffic management is efficient and effective.
- 2.38 Last year our consultants provided a report on the congestion which occurs at Belmont Circle which was mainly attributed to the two Toucan Crossing facilities. It was recommended that the two crossings are linked so that traffic flows more smoothly. TfL are currently working up the design to link the signals.
- 2.39 The Council's transport consultants have suggested a number of options to improve congestion issues around to Queensbury Circle. One of the options being considered is part time signals. A number of other options are being considered and are being worked up in more detail.

#### LIP - School Travel Plan Highway schemes

- 2.40 As a part of the school expansion programme and associated transport assessments, approved by the Planning Committee, some highway improvements have been identified to mitigate the traffic impact of

expansion. This programme of work takes forward any agreed mitigations identified.

- 2.41 As part of this programme, a review of parking and loading restrictions mainly outside schools is on-going.

#### LIP Electric Vehicles (EV) infrastructure

- 2.42 We are currently looking at how we can best support electric vehicle use in the borough, including potential locations for on-street charging points. The final locations for these charge points will take into account the views of and requests from residents. Locations will be assessed for suitability and factor in a number of considerations for other road users and pedestrians, for example, ensuring that footpaths continue to be wide enough to accommodate wheelchairs.

- 2.43 Harrow residents and businesses have been consulted about their views on electric vehicles and potential locations for charge points. We are currently analysing the responses and the results will be used to help determine potential locations for electric charge points.

#### Neighbourhood of the Future (NoF) Ultra Low Emission Zone (ULEZ)

- 2.44 The council is working with Chargemaster to supply our electric charging points in Harrow Town Centre. The council has purchased four charging units which will be installed in the next few months.
- 2.45 Training of local mechanics to work on and service electric vehicles is scheduled to commence in July in partnership with local businesses.

#### LIP - Accessibility Improvements

- 2.46 This is an on-going programme of work and is concentrated mainly on the provision of disabled parking bays, dropped kerbs for pedestrians and other physical changes to the highway to support mobility impaired people's needs.

#### **External funding sources - Section 106**

#### Goodwill to All junction – Headstone Drive / Harrow View / Headstone Gardens

- 2.47 The scheme to amend the junction is currently being modelled in partnership with one of the council's transport consultants in liaison with TfL's signal design team. A number of options are being considered in order to be able to introduce an all red pedestrian phase whilst trying to improve traffic flow through the junction. This will involve banning some right turn movements to increase capacity at the junction.

- 2.48 A more detailed appraisal of the scheme is included in the agenda for tonight's meeting.

The Matrix Pub - Sandringham Crescent area parking review

- 2.49 The business case for the release of funds for this project has been submitted. Once the funds have been released a parking review will be undertaken in the area surrounding the development with a view to introducing new parking controls.

GLA funding - Wealdstone Square (formerly Trinity Square) Wealdstone

- 2.50 The scheme includes the concept of splitting the public realm into three distinct sections. A dwell space near the Trinity Church, a host space for potential events and a servicing space for parking and access. Details of the final scheme can be seen in **Appendix C**.
- 2.51 The statutory consultation process took place between 24<sup>th</sup> May – 14<sup>th</sup> June and the results will be collated and discussed with the Portfolio Holder before proceeding any further with the scheme. Subject to resolving any objections the scheme should be implemented later this financial year.

### **Section 3 – Further Information**

- 3.1 A regular update is provided at every meeting on progress with the annual programme of traffic and parking schemes. Future reports will provide information to members about any consultations, statutory consultations, portfolio holder decisions and implementation issues since the previous meeting.

### **Section 4 – Financial Implications**

- 4.1 Any schemes and works programmes mentioned in this report are being taken forward using identified resources within the 2018/19 capital programme and confirmed funding allocations from TfL, S106 and the GLA for 2018/19.

### **Section 5 - Equalities implications**

- 5.1 All major schemes included in this report, depending on what stage they are at, have been or will be subject to an equality impact assessment (EqIA).
- 5.2 Small to medium sized schemes, depending on what stage they are at, have been or will be subject to a review of equality issues as a part of the design risk assessment stage of the scheme.
- 5.3 In general terms there have been no adverse impacts on any of the specified equality groups from any of the schemes or initiatives mentioned in this

report. There are positive impacts on some equalities groups, particularly disability and age.

## Section 6 – Council Priorities

6.1 The funds allocated by TfL and Harrow for transport improvements will contribute to achieving the administration’s priorities:

- Making a difference for the vulnerable
- Making a difference for communities
- Making a difference for local businesses
- Making a difference for families

## Section 7 - Statutory Officer Clearance

Name: Jessie Man	<input checked="" type="checkbox"/>	on behalf of the Chief Financial Officer
Date: 11/06/2018		

<b>Ward Councillors notified:</b>	<b>NO, as it impacts on all wards</b>
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## Section 8 - Contact Details and Background Papers

### Contact:

Barry Philips – Team Leader, Transportation  
Tel: 020 8424 1649, Fax: 020 8424 7662,  
E-mail: [Barry.Philips@harrow.gov.uk](mailto:Barry.Philips@harrow.gov.uk)

Johann Alles – Deputy Team Leader  
Tel: 020, Fax: 020 8424 7662,  
E- mail: [Johann.Alles@Harrow.gov.uk](mailto:Johann.Alles@Harrow.gov.uk)

### Background Papers:

Local Implementation Plan  
Previous TARSAP reports

## Appendix A – Harrow Capital, parking management schemes update – 2018/19

This is Harrow’s own programme of parking management scheme initiatives which support the delivery of the Local implementation Plan. In 2018/19 this comprises of allocations of £240K for controlled parking schemes and £60K for the local safety parking schemes programme.

Scheme	Details	£ K	Status	Contact officer	Planned finish
<b>Carried over from 2017-18</b> Kenmore Ave / Brampton Grove area, Kenton – new CPZ	Localised parking review – possible new zone with extended hours of control	30	Legal notification (Statutory consultation) to be undertaken in November	Barry Philips / Sajjad Farid	Jan 2019
The Broadway, Hatch End service roads – new P&D CPZ	New parking controls, proposals to introduce pay and display outside the shops in the service roads.	50	Initial investigations and surveys	Barry Philips / Sajjad Farid	Mar 2019
Canons Zone TB - localised parking review of existing CPZ	Review of the hours of operation of zone TB possible inclusion of Lake View	45	Initial design underway – to be discussed with local councillors	Barry Philips / Sajjad Farid	Jan 2019
72-94 Lower Road, Harrow on the Hill – new CPZ	New parking controls – on proposals to introduce a CPZ in the service road. Undertake public consultation, statutory notification and implementation.	10	Initial design underway – to be discussed with local councillors	Barry Philips / Sajjad Farid	Oct 2018
West Street / Nelson Road area, Harrow on the Hill – new CPZ	New parking controls - on proposals to introduce a CPZ to address commuter and long stay parking problems in area	60	Initial design underway – Forum meeting held in May	Barry Philips / Sajjad Farid	Mar 2019
Whitchurch Gardens area, Canons – new CPZ	Localised parking review – possible new zone	35	Initial design underway – to be discussed with local councillors	Barry Philips / Sajjad Farid	Nov 2018

Scheme	Details	£ K	Status	Contact officer	Planned finish
Local Safety Parking Schemes Programme	The introduction of minor localised waiting restrictions (yellow lines) schemes to deal with access problems and road safety issues.	60	On-going prioritisation / implementation of requests for yellow lines. (See main body of report)	Barry Philips / Sajjad Farid	Mar 2019
	Review of waiting restrictions in Whitefriars Avenue / Gordon Road, Wealdstone to deal with localised congestion.		Legal notification (Statutory consultation) undertaken in May	Barry Philips / Sajjad Farid	Mar 2019

## Appendix B - Transport for London, Local Implementation Plan (LIP) programme update – 2018/19

This is the main traffic and transportation programme funded by Transport for London to deliver the programme of investment in the Transport Local Implementation Plan (LIP). The overall allocation for traffic and transportation works and initiatives related to the LIP in 2018/19 is £1,687k. This is allocated as either capital or revenue within Harrow's financial system depending on the nature of the work undertaken.

TFL programme	Scheme	Details	£ k	Status	Contact officer	Planned finish
Corridors	Accident remedial schemes	Mass action - killed and seriously injured (KSI) casualties' reduction. Sites include Alexandra Avenue – Oxhey Lane / Uxbridge Road – Pinner Road / Station Road	100	See main report	Barry Philips	Mar 2019
Corridors	20 mph zone programme	Implementation of 20mph zones around schools in the borough.  Whitefriars School - extension Cedars Manor School - extension Kenmore Park School - extension	130	Implementation in February / March 2019.	Barry Philips	Mar 2019
Corridors	Walking Schemes	Infrastructure schemes designed to improve walking facilities	60	Complete pedestrian crossing on Honeypot Lane (near Crowshott Avenue) Eastcote Lane / Marsh Road – investigations Harrow on the Hill – Changes around the green	Barry Philips	Mar 2019
Corridors	Cycling Schemes	Programme of schemes to improve cycle routes on the highway network	250	Improvement to the Jubilee and northern routes	Barry Philips	Mar 2019

<b>TFL programme</b>	<b>Scheme</b>	<b>Details</b>	<b>£ k</b>	<b>Status</b>	<b>Contact officer</b>	<b>Planned finish</b>
Corridors	Bus priority schemes	Schemes to improve congestion and improve delays to buses on Pinner Road near Station Road and Harrow on the Hill	230	Pinner Road, North Harrow – road widening  Route 140 on going improvements	Barry Philips	Mar 2019
Corridors	Bus stop accessibility schemes	Programme of works to improve accessibility for buses and pedestrians at bus stops	50	Investigations on going to determine sites where improvements are required	Barry Philips	Mar 2019
Corridors	Freight management schemes	Review of existing weight limit restriction zones	50	Review of existing lorry ban zones – benchmarking enforcement with other boroughs	Barry Philips	Mar 2019
Corridors	Congestion relief studies	Programme of schemes to reduce congestion and improve journey time reliability	50	Linking pedestrian crossings on Belmont Circle – in design by TfL Kenton Lane (northern end) – waiting restrictions to help bus flow Queensbury Circle – study being progressed by Atkins	Barry Philips	Mar 2019
Corridors	School Travel Plan, Highway schemes	Highway improvement schemes identified in School Travel Plans to encourage sustainable transport and mitigate impact of school expansions	50	Review of parking and loading restrictions around schools	Barry Philips	Mar 2019
Corridors	Accessibility Improvements	Provision of Disabled parking bays, and dropped kerbs for pedestrians and other physical changes to highway to support mobility impaired people	40	On-going programme of delivery throughout the year. Delivered in batches.	Barry Philips	Mar 2019
Corridors	Legible London Signing	Pedestrian way finding sign works	50	Way finding signs in Stanmore and Headstone North	Barry Philips	Mar 2019

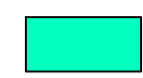


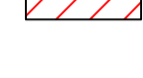




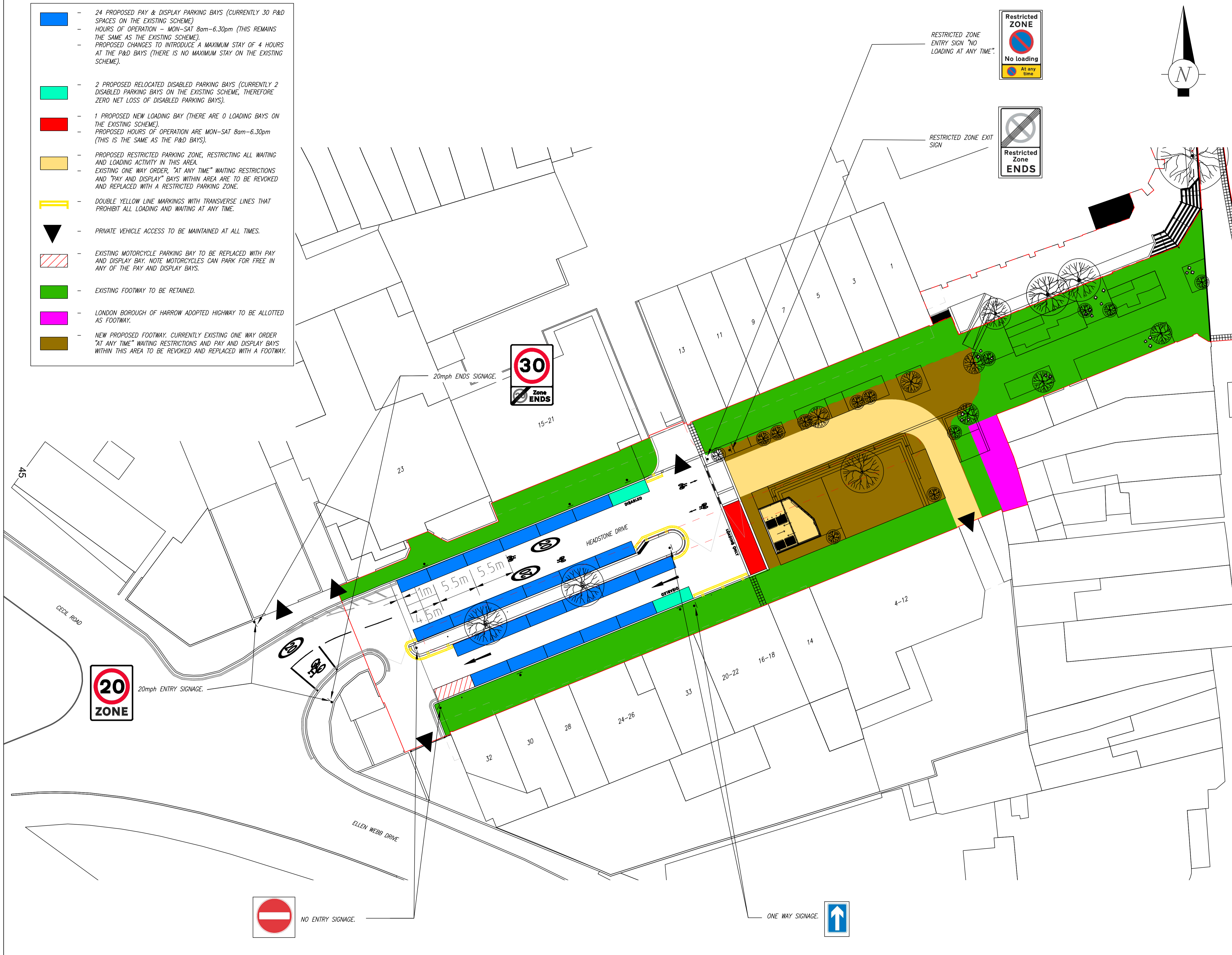
<b>TFL programme</b>	<b>Scheme</b>	<b>Details</b>	<b>£ k</b>	<b>Status</b>	<b>Contact officer</b>	<b>Planned finish</b>
Corridors	Forward programme development	Identify future work through assessments and studies.	72	On-going scheme investigation and development work for 2018/19 schemes  Development of LIP3 and other strategic documents	Barry Philips	Mar 2019
Corridors	Shopmobility	Funding support for increased opening hours of service particularly at weekends and in Christmas sales	5	Funds being used to support Shopmobility	Barry Philips	Mar 2019
Corridors	Independent travel training	Targeted travel training for people with learning difficulties to support public transport use	25	Council SEN services to provide travel training to students at Harrow College and Shaftesbury High School	Barry Philips	Mar 2019
Corridors	Road safety education and promotions	Various road safety education initiatives for schools and vulnerable road user groups undertaken by Road Safety Officer.	50	Interactive road safety education programs to continue in all schools in Harrow.	David Corby	Mar 2019
Corridors	Cycle training	TfL funded cycle training is offered free to children and adults, who live, work or are educated in the borough. All courses are promoted via the council website and throughout schools and businesses in the borough.	80	On-going delivery of free cycle training for children and adults	David Corby	Mar 2019

TFL programme	Scheme	Details	£ k	Status	Contact officer	Planned finish
Corridors	Active Travel and Air Quality initiatives	Support air quality and anti-idle initiatives  Support active travel through sustainable transport initiatives	50	Various measures proposed including: <ul style="list-style-type: none"> <li>• Monitoring tubes installed around schools</li> <li>• Promotion of electric vehicle technology and charging points and Car Clubs</li> <li>• Promotions / Campaigns including - Bike Week, cycling promotions, walking works promotions, integration with smarter travel</li> <li>• Promotion of Active Travel and links with Health and Air Quality</li> <li>• Anti-Idling campaign</li> <li>• Electric vehicles promotion</li> <li>• Electric bikes trial</li> <li>• Mobike dockless bikes trial</li> </ul>	Barry Philips	Mar 2019
Corridors	ULEV infrastructure and car clubs	Promote electric charging points and car clubs	50	Investigating suitable sites for electric charging points to support electric vehicles use.	Barry Philips	Mar 2019
Corridors	Travel plans	Various initiatives undertaken by travel planning staff: <ul style="list-style-type: none"> <li>• Small grant funding to support travel plans</li> <li>• Walk to School promotions</li> <li>• Schools quarterly newsletter</li> <li>• Theatre in education</li> <li>• School Travel Maps</li> <li>• Cycle repair workshops</li> </ul>	130	Support for school travel plans including requests for grant funding to implement measures to support school travel plans to promote sustainable travel and discourage use of private car to travel to school.  Promotional work to support sustainable transport message including Theatre in Education shows and Dr Bike sessions	Barry Philips	Mar 2019

TFL programme	Scheme	Details	£ k	Status	Contact officer	Planned finish
Local Transport Fund	Various local schemes	<p>Local priority schemes identified by the borough which support the Mayors Transport Strategy</p> <ul style="list-style-type: none"> <li>• Avanti School, Common Road – school safety scheme</li> <li>• Eastern Avenue – pedestrian refuge</li> <li>• Rayners Lane / Clitheroe Ave / Quartz Court – improve access and road safety.</li> <li>• Graham Road / Claremont Road / Ladysmith Road – Copenhagen style crossings, walking scheme</li> <li>• Bessborough Road – pedestrian safety scheme</li> </ul>	100	(See main body of report)	Barry Philips	Mar 2019
GULC Rapid EV Charging Infrastructure	Harrow NOF – Greenhill Go Ultra Low	<p>Implement a neighbourhood of the future in Harrow Town centre</p> <p>Introduction of EV charging points and EV parking bays</p> <p>Provide accredited training courses for mechanics in Harrow to become skilled in the maintenance of electric vehicles</p>	65	<p>Scheme parking layouts design on-going.</p> <p>EV charging point contract being finalised.</p> <p>Reviewing training courses for EV maintenance.</p>	Barry Philips	Mar 2019

<b>TFL programme</b>	<b>Scheme</b>	<b>Details</b>	<b>£ k</b>	<b>Status</b>	<b>Contact officer</b>	<b>Planned finish</b>
Bus priority delivery portfolio	Wealdstone town centre bus improvements	Additional transport modelling work (VISSIM) to assess bus journey time performance on two design options in the Wealdstone Transport Study	N/A	Completion of 2017/18 project	Barry Philips	Jul 2018

-  - 24 PROPOSED PAY & DISPLAY PARKING BAYS (CURRENTLY 30 P&D SPACES ON THE EXISTING SCHEME)
- HOURS OF OPERATION - MON-SAT 8am-6.30pm (THIS REMAINS THE SAME AS THE EXISTING SCHEME).
- PROPOSED CHANGES TO INTRODUCE A MAXIMUM STAY OF 4 HOURS AT THE P&D BAYS (THERE IS NO MAXIMUM STAY ON THE EXISTING SCHEME).
-  - 2 PROPOSED RELOCATED DISABLED PARKING BAYS (CURRENTLY 2 DISABLED PARKING BAYS ON THE EXISTING SCHEME, THEREFORE ZERO NET LOSS OF DISABLED PARKING BAYS).
-  - 1 PROPOSED NEW LOADING BAY (THERE ARE 0 LOADING BAYS ON THE EXISTING SCHEME).
- PROPOSED HOURS OF OPERATION ARE MON-SAT 8am-6.30pm (THIS IS THE SAME AS THE P&D BAYS).
-  - PROPOSED RESTRICTED PARKING ZONE, RESTRICTING ALL WAITING AND LOADING ACTIVITY IN THIS AREA.
- EXISTING ONE WAY ORDER, "AT ANY TIME" WAITING RESTRICTIONS AND "PAY AND DISPLAY" BAYS WITHIN AREA ARE TO BE REVOKED AND REPLACED WITH A RESTRICTED PARKING ZONE.
-  - DOUBLE YELLOW LINE MARKINGS WITH TRANSVERSE LINES THAT PROHIBIT ALL LOADING AND WAITING AT ANY TIME.
-  - PRIVATE VEHICLE ACCESS TO BE MAINTAINED AT ALL TIMES.
-  - EXISTING MOTORCYCLE PARKING BAY TO BE REPLACED WITH PAY AND DISPLAY BAY. NOTE: MOTORCYCLES CAN PARK FOR FREE IN ANY OF THE PAY AND DISPLAY BAYS.
-  - EXISTING FOOTWAY TO BE RETAINED.
-  - LONDON BOROUGH OF HARROW ADOPTED HIGHWAY TO BE ALLOTTED AS FOOTWAY.
-  - NEW PROPOSED FOOTWAY. CURRENTLY EXISTING ONE WAY ORDER "AT ANY TIME" WAITING RESTRICTIONS AND PAY AND DISPLAY BAYS WITHIN THIS AREA TO BE REVOKED AND REPLACED WITH A FOOTWAY.



**NOTES:**

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATION.
2. DO NOT SCALE FROM THIS DRAWING.
3. THIS DRAWING SHOULD BE READ IN REFERENCE TO THE EXISTING TRAFFIC ORDER FOR HEADSTONE DRIVE.
4. LB HARROW TO SPECIFY SIGNAGE AND ROAD MARKING DIMENSIONS.

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**Harrow COUNCIL**  
LONDON

**COMMUNITY & ENVIRONMENT**  
TRANSPORTATION

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Harrow, Middlesex, HA1 2XA  
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A	AMENDMENTS FROM PREVIOUS DRAWING	18/05/18	NS
Designation/Details of Revision			
Project			
<b>WEALDSTONE SQUARE, HARROW</b>			
Title			
<b>TMO SUMMARY</b>			
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**REPORT FOR: Traffic And Road Safety  
Advisory Panel**

---

<b>Date of Meeting:</b>	26 <sup>th</sup> June 2018
<b>Subject:</b>	<b>INFORMATION REPORT</b>  Harrow View / Headstone Drive junction improvement (Goodwill to All) - progress update
<b>Responsible Officer:</b>	Paul Walker – Corporate Director, Community
<b>Exempt:</b>	No
<b>Wards affected:</b>	Headstone South, Marlborough
<b>Enclosures:</b>	Appendix A - Technical Note Appendix B – Proposed general arrangements

## **Section 1 – Summary**

This information report is presented to Members to provide an update on the Goodwill to All junction improvements funded through section 106 monies obtained via the Kodak site and explains the objectives, outcomes and recommendations.

### **FOR INFORMATION**

## **Section 2 – Report**

### **Background**

- 2.1 Harrow View / Headstone Road / Headstone Drive junction, also known as the Goodwill to All junction, is a four arm traffic light controlled junction located close to the old Kodak site. The junction currently has no controlled pedestrian crossing stages and operates during weekdays at or near capacity in the morning and afternoon peak times.
- 2.2 There is an existing right turn ban from Harrow View (southern arm) into Headstone Drive (eastern arm) which has been in place for some time and there are three bus routes which travel through the junction the H9, H10 and H14, bus stops are located close to the junction on all four arms.
- 2.3 As part of the Kodak redevelopment works involving the construction of new houses, a new school, retail facilities and a Health Centre a substantial sum of money was secured through a legal section 106 agreement with the developers of the site in order to mitigate the impact of the development on the public highway.
- 2.4 A specific element of the section 106 developer contribution was allocated to improve the existing Harrow View / Headstone Road / Headstone Drive signalised junction in order to provide an all red pedestrian phase to assist pedestrians crossing the junction and to encourage modal shift through increased walking, cycling and the use of public transport facilities in the area.
- 2.5 Construction of the housing stock is currently progressing on two sites one to the west of Harrow View on the previous Zoom Leisure site and the other to the east on the Kodak site. The funds secured through the section 106 agreement are being released in stages as different phases of the development are taken forward.
- 2.6 Eighteen months ago a sum of £50,000 was released in order to allow the council, in consultation with Transport for London (TfL), who own and operate all signals in London, to develop proposals at the junction to



incorporate an all red pedestrian phase whilst maximising junction capacity to maintain operational effectiveness.

- 2.7 The funds were utilised to undertake traffic surveys to provide up to date information about queuing, delays, traffic flows and capacity at the junction and also to commission a transport consultant to investigate design options and undertake traffic modelling assessments.
- 2.8 Any changes to the phasing and operation of the signals at the junction will need to satisfy the requirements of TfL because they are the asset owner for traffic signals and they will give any necessary technical approvals for the proposed changes to the signal arrangement and phasing as a part of their network management duty to ensure the expeditious movement of traffic and the strategic importance of this junction on the highway network.
- 2.9 A number of different design options for the junction have been considered in order to meet the council's objectives of introducing an all red pedestrian phase into the junction whilst maintaining or improving capacity for vehicular traffic.
- 2.10 The development of design options involved developing a traffic model, for each option to assess the performance of each option as a part of the TfL Model Auditing Process (MAP). The model is required in order to support the assessment process to consider and verify the impact of different design models for the junction.
- 2.11 A detailed technical report of the options considered can be seen at **Appendix A** for information.

### **Options Considered**

- 2.12 A number of different design options were considered as part of this process and these options are summarised below:

#### Option 1 Staggered crossings

- Staggered signalised pedestrian crossings on all approaches;
- Dedicated left turn lane on Headstone Drive;
- Ahead movements also permitted on all right turn lanes; and
- Headstone Gardens approach reduced from 3 lanes to 2.

#### Option 2A Straight across crossings

- Straight across signalised pedestrian crossings on all approaches;
- Ahead and right permitted from Harrow View (N) with two-lane exit;
- Harrow View (S) reduced to one lane for ahead and left movements, right turn remains restricted; and Headstone Drive and Headstone Gardens approaches remain as existing.

#### Option 2B Mix Stagger and Straight across Crossings

- As Option 2A with staggered crossings on the Headstone Drive and Headstone Gardens approaches.

#### Option 3 (Existing Layout with Straight across Crossings)

- Existing junction layout with straight across signalised pedestrian crossings on all approaches; and tightened junction by bringing kerb lines in to reduce amount of lost time between green phases.

#### Option 4A (All right turns Prohibited)

- Straight across signalised pedestrian crossings on all approaches;
- Right turns restricted from all approaches;
- Single lane approach on Harrow View (S); and
- Two-lane exit on Harrow View (S).

#### Option 4B Headstone Drive right turn allowed but all other right turn movements are banned.(except cyclists)

- As Option 4A but with right turns permitted from Headstone Drive.

#### Option 5 Straight Across Crossings with Two-Lane Exit

- Straight across signalised pedestrian crossings on all approaches; and,
- Extended ahead and right turn flare on Harrow View (N) with a two-lane exit.

#### Option 6 Unconstrained junction layout

- Three lanes on Harrow View (N) approach;
- Three lanes on Headstone Drive approach;
- Two lanes on Harrow View (S) approach;
- Four lanes on Headstone Gardens approach; and
- Two lane exits on all approaches.

### **Conclusions and Recommendations**

- 2.13 All of the options were modelled and assessed by the transport consultants in consultation with the Council's transportation team. The results of the modelling exercise were shared with ward councillors and the Portfolio Holder at a meeting held earlier this year.
- 2.14 After careful consideration **Option 4B** was selected as the preferred option because it improves safety for pedestrians by providing signalised pedestrian crossings on all arms, whilst maximising capacity and

mitigating predicted increases in future traffic flow from proposed developments in the area.

- 2.15 The Option 4B proposals allow the right turn from Headstone Drive but all other right turn movements are banned (except cyclists) and this can be seen in more detail on Page 6 of the attached technical report.
- 2.16 These proposals were taken forward in order to satisfy TfL's MAP process and is discussed in more detail below.
- 2.17 **Appendix B** shows details of the proposed layout of the junction.
- 2.18 The detailed assessment for this option indicated that during both peak hours the cycle time would have to be increased to 120 seconds to provide sufficient green time on each of the approaches to provide an all-red phase for pedestrians. The junction was also optimised for the practical reserve capacity (PRC) to optimise the junction's performance.
- 2.19 A comparison of the base and proposed modelling results for the year 2026 indicated that the proposed changes to the junction are predicted to improve performance on Harrow View (N), Headstone Drive and Headstone Gardens approaches. A marginal increase in the Degree of Saturation (DoS) and queues is reported at Harrow View (S) approach but this was not considered to be excessive.
- 2.20 The results show that this option operates at 20% over theoretical capacity in the future year 2026 and allows for right turn movement on the critical east approach whilst prohibiting right turns from the north and west approaches.
- 2.21 In order to give motorists advanced warning of the banned movements at the junction a new advanced warning signing strategy is being developed which will suggest alternative routes to avoid confusion at the junction.
- 2.22 It is anticipated that option 4B will be taken forward to public consultation later this year.

### **Section 3 – Further Information**

- 3.1 There is no further information.

### **Section 4 – Financial Implications**

- 4.1 The scheme is funded via a section 106 agreement from the funds associated with the Kodak Development site. A sum £ £831,800 has been secured with the developer Land Securities for the detailed modelling, the implementation of new signal equipment and all associated amendments to the junction as detailed above.

## Section 5 - Equalities implications

- 5.1 The Transport Local Implementation Plan (LIP) sets out the relevant transport policies and objectives of the Council and was subject to an Equalities Impact Assessment which identified that there was no negative impact on any of the protected groups. The transport mitigations in the report accord with the principles of the Council's LIP.

## Section 6 – Council Priorities

- 6.1 The funds allocated by TfL and Harrow for transport improvements will contribute to achieving the administration's priorities:
- Making a difference for the vulnerable
  - Making a difference for communities
  - Making a difference for local businesses
  - Making a difference for families

## Section 7 - Statutory Officer Clearance

Name: Jessie Man	<input checked="" type="checkbox"/>	on behalf of the Chief Financial Officer
Date: 11/06/2018		

<b>Ward Councillors notified:</b>	<b>YES</b>
-----------------------------------	------------

## Section 8 - Contact Details and Background Papers

### Contact:

Barry Philips – Transportation Team Leader  
Tel: 020 8424 1649, Fax: 020 8424 7662,  
E-mail: [barry.philips@harrow.gov.uk](mailto:barry.philips@harrow.gov.uk)

### Background Papers:

Goodwill to All Junction - Proposed design options modelling report  
Business Case

# **Goodwill to All Junction**

Proposed LinSig Model Report  
London Borough of Harrow

06 June 2018

# Notice

This document and its contents have been prepared and are intended solely for London Borough of Harrow's information and use in relation to the Goodwill to All junction improvement study.

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This document has 20 pages including the cover.

## Document history

Job number: 5153774			Document ref:			
Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 1.0	Draft for LMAP 5 Audit	LE	GD	ND	CG	15/12/2017
Rev 2.0	Draft for LMAP 5 Audit	LE	GD	ND	CG	04/04/2018
Rev 3.0	Final	LE	GD	ND	CG	06/06/2018

## Client signoff

Client	London Borough of Harrow
Project	Goodwill to All Junction
Document title	Goodwill to All Junction Study
Job no.	5153774
Copy no.	
Document reference	

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# 1. Introduction

## 1.1. Background

Atkins has been appointed by the London Borough of Harrow (LBH) to provide transport consultancy services to improve the operations at the Harrow View / Headstone Drive / Headstone Gardens junction, also known as the Goodwill to All junction near Wealdstone in the LBH.

The LBH commissioned Atkins to develop a LinSig model, as part of the Transport for London (TfL) Model Auditing Process (MAP), to support the assessment and implementation of the design proposals at the junction.

LinSig Base models for the AM and PM peak hours were developed and approved through the TfL LinSig Model Auditing Process (LMAP Stage 2 and 3). This report provides details of the LinSig modelling assessment of the proposed design (TfL LMAP Stage 5) at the Harrow View / Headstone Drive junction.

## 1.2. Report Structure

The structure of this report is as follows:

- Section 2 outlines the proposals and modelling assessment for the LMAP 5 stage; and
- Section 3 provides a summary and conclusion.



## 2. LMAP Stage 5 Proposed Model

### 2.1. Purpose of Scheme

A Transport Assessment was conducted in June 2015 by CH2M Hill to review the impacts of the redevelopment of the former Kodak site known as Harrow View East, situated north-east of the junction. The mixed-use development comprising of residential units, health care facilities, primary school, retail, a care home and senior living accommodation along with community and leisure facilities is expected to be fully operational by 2026.

The Harrow View East Transport Assessment indicated that the Harrow View / Headstone Drive junction currently operates over capacity and this is expected to exacerbate due to the increase in traffic associated with the proposed development. The assessment did not consider geometric improvements but suggested revising signal timings to mitigate the performance of the junction. Further considerations of implementing MOVA or UTC control to improve the performance of the junction was also proposed.

Currently, the junction is a four-arm signalised junction, with uncontrolled pedestrian crossing points on all approaches. As the Harrow View East development is expected to generate higher pedestrian activity along with an increase in traffic flows, the study aims to investigate and identify suitable measures to improve junction capacity while providing signal controlled pedestrian crossings. The objectives of the study are to:

- Improve traffic flow through the Harrow View / Headstone Drive junction;
- Improve pedestrian and cycle safety;
- Reduce the risk of accidents within the area;
- Provide suitable parking / loading facilities in the vicinity of the junction; and
- Encourage walking and cycling within the area and promote sustainable transport.

A number of proposed designs were considered and assessed using the LMAP 3 validated base model. The options developed and tested are summarised in **Table 2-1** below, with the results of the assessment presented in **Appendix A**.

**Table 2-1 Scheme Development Options**

Option	Details
Option 1 (Staggered Crossings)	<ul style="list-style-type: none"> <li>• Staggered signalised pedestrian crossings on all approaches;</li> <li>• Dedicated left turn lane on Headstone Drive;</li> <li>• Ahead movements also permitted on all right turn lanes; and</li> <li>• Headstone Gardens approach reduced from 3 lanes to 2.</li> </ul>
Option 2A (Straight Across Crossings)	<ul style="list-style-type: none"> <li>• Straight across signalised pedestrian crossings on all approaches;</li> <li>• Ahead and right permitted from Harrow View (N) with two-lane exit;</li> <li>• Harrow View (S) reduced to one lane for ahead and left movements, right turn remains restricted; and</li> <li>• Headstone Drive and Headstone Gardens approaches remain as existing.</li> </ul>
Option 2B (Mix Stagger and Straight Across Crossings)	<ul style="list-style-type: none"> <li>• As Option 2A with staggered crossings on the Headstone Drive and Headstone Gardens approaches.</li> </ul>
Option 3 (Existing Layout with Straight Across Crossings)	<ul style="list-style-type: none"> <li>• Existing junction layout with straight across signalised pedestrian crossings on all approaches; and</li> <li>• Tightened junction by bringing kerb lines in to reduce intergreens.</li> </ul>
Option 4A (Right Turns Prohibited)	<ul style="list-style-type: none"> <li>• Straight across signalised pedestrian crossings on all approaches;</li> <li>• Right turns restricted from all approaches;</li> <li>• Single lane approach on Harrow View (S); and</li> <li>• Two-lane exit on Harrow View (S).</li> </ul>
Option 4B (Preferred Option)	<ul style="list-style-type: none"> <li>• As Option 4A with right turns permitted from Headstone Drive.</li> </ul>

Option	Details
(Headstone Dr. Right Turn Allowed)	
Option 5 (Straight Across Crossings with Two-Lane Exit)	<ul style="list-style-type: none"> <li>• Straight across signalised pedestrian crossings on all approaches; and</li> <li>• Extended ahead and right turn flare on Harrow View (N) with a two-lane exit.</li> </ul>
Option 6 (Unconstrained Junction Layout)	<ul style="list-style-type: none"> <li>• Three lanes on Harrow View (N) approach;</li> <li>• Three lanes on Headstone Drive approach;</li> <li>• Two lanes on Harrow View (S) approach;</li> <li>• Four lanes on Headstone Gardens approach; and</li> <li>• Two lane exits on all approaches.</li> </ul>

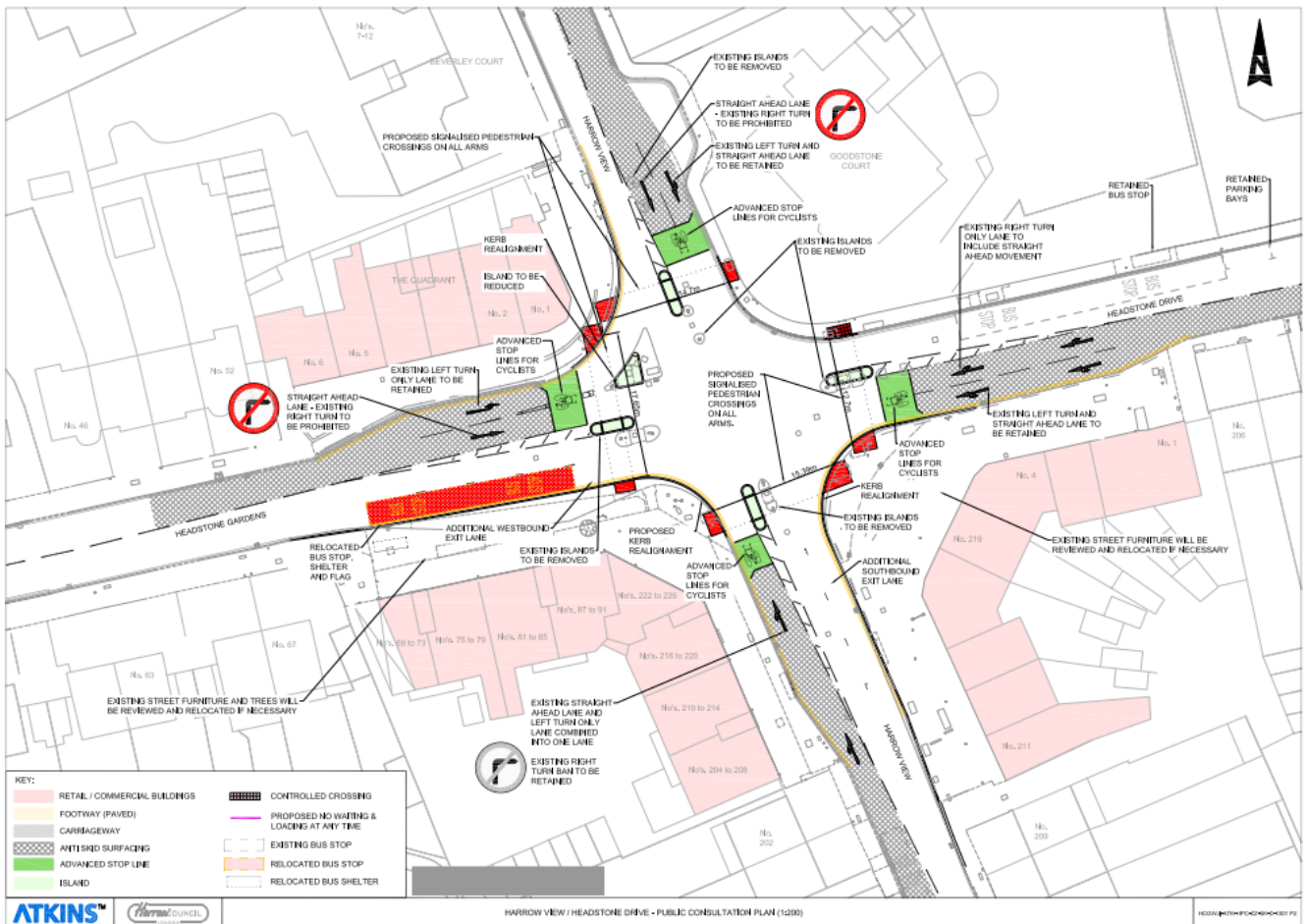
## 2.2. LinSig Model Development

LinSig base models were developed to assess the current performance of the Harrow View / Headstone Drive junction and were approved through the TfL MAP process. The approved LinSig base models were used as a basis for developing the LinSig proposed models for assessing the impact of the junction proposals.

## 2.3. Preferred Junction Design Proposal

The design of the Preferred Option is shown in **Figure 2-1**. The preliminary drawing of the Preferred Option set to 1:200 scale is shown in **Appendix B**.

**Figure 2-1 Harrow View / Headstone Drive Proposed Design**



## 2.4. L503 Changes to Model

The TfL approved LinSig base model was used as a basis for developing the LinSig Preferred Option model. Details of the changes made to the base model to incorporate the proposed design at the Harrow View / Headstone Drive junction are presented below. This included changes to lane configurations, lane lengths and intergreens, which were calculated using the proposed scheme drawing.

### 2.4.1. Physical Road Layout and Geometry

The following physical road layout and geometry changes are proposed, as shown in **Figure 2-1**.

- Existing right turns to be prohibited on Headstone Gardens and Harrow View (N) approaches and the current right turn restriction on Harrow View (S) to be retained;
- Provision of advanced stop lines for cyclists on all approaches;
- Removal of existing pedestrian crossing islands. Signalised pedestrian crossings to be installed on all arms;
- Additional exit lanes on Harrow View (S) and Headstone Gardens;
- Existing right turn lane converted into straight ahead on Harrow View (N), with ahead and left lane retained;
- Existing right turn lane on Headstone Drive converted to ahead and right;
- Two lanes on Harrow View (S) consolidated into one lane; and
- Three lanes reduced to two on Headstone Gardens, removing the right turn and retaining the existing ahead and left.

The changes highlighted above and in Figure 2-1 have been reflected in the proposed LinSig model.

### 2.4.2. Lane Markings and Usage

The existing junction layout permits right turn manoeuvres from all approaches except Harrow View (S) approach. The lane markings in the proposed designs will reflect the revised lane definitions. Right turns will only be permitted from Headstone Drive to Harrow View (N) in the future junction layout.

### 2.4.3. Saturation Flows

In the Preferred Option design, where the lane widths have changed, saturation flow values has been updated based on the following criteria:

- Use of RR67 to calculate saturation flow values where observed saturation flow calculations was not conducted in the existing layout;
- Proportional increase of saturation flow values based on the observed saturation flow data and changes to lane width; and
- Use of existing saturation flow values where lane widths in the Preferred Option remain similar to the existing layout.

**Table 2-2** provides the saturation values used to model the Preferred Option.

**Table 2-2 Existing and Preferred Option Saturation Flow Values**

Approach	Existing Layout			Preferred Option	
	Base width (m)	Model Sat Flows	Base Model Sat Flow Values	Proposed Width (m)	Proposed Sat Flow Values
Harrow View (N) L1	2.6	Observed	1772	3	2045
Harrow View (N) L2	2.5	RR67	1735	3	1915
Headstone Drive L1	3	Observed	1800	3	1800
Headstone Drive L2	2.5	RR67	1759	3	1807
Harrow View (S) L1	2.4	RR67	1712		
Harrow View (S) L2	3	Observed	1930	4	2015

Headstone Gardens L1	2.5	RR67	1759	3	1807
Headstone Gardens L2	2.7	Observed	1687	3	1873
Headstone Gardens L3	2.6	RR67	1705		

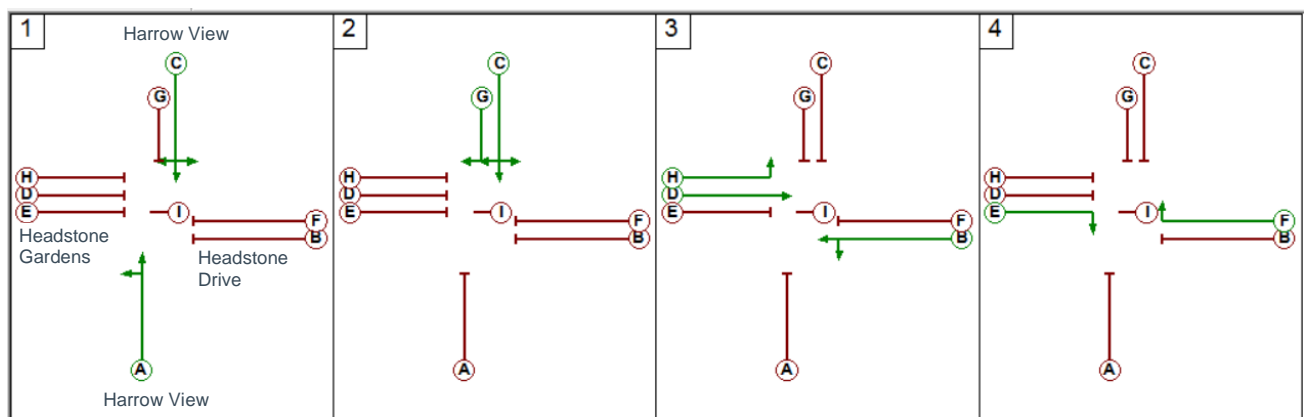
### 2.4.4. Signal Timings

Due to the layout changes at the junction which included changes in lane configuration and kerb lines and the addition of an all-red pedestrian phase, new signal timings have been proposed for the junction. **Table 2-3** presents the existing Phase Intergreen data applied in the Base LinSig models.

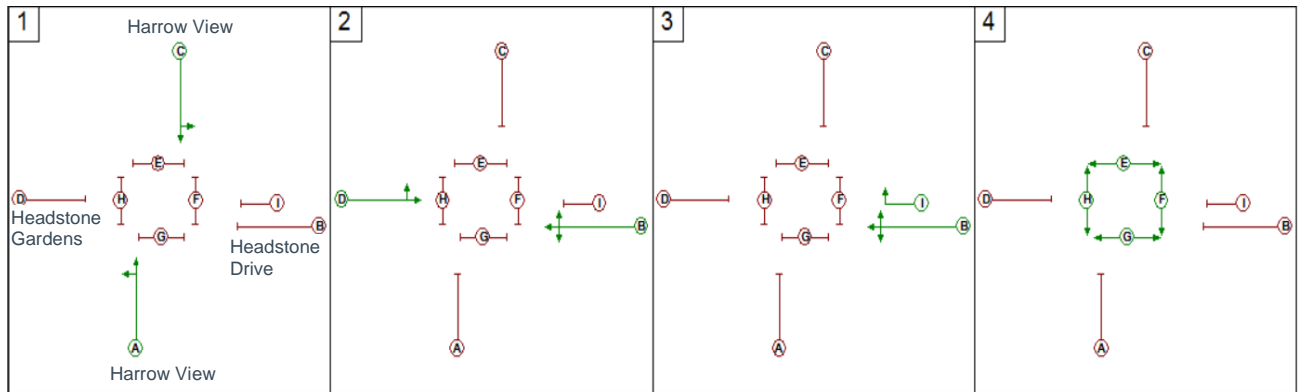
**Table 2-4** shows the proposed Phase Intergreen data (for the non-dummy phases) applied in the proposed LinSig models. It must be noted that the dummy phases have been excluded from the proposed phase intergreen data in **Table 2-3**.

The existing and proposed phases are shown in **Figures 2-2** and **2-3**, respectively.

**Figure 2-2 Harrow View / Headstone Drive Existing Stage Sequence**



**Figure 2-3 Harrow View / Headstone Drive Proposed Stage Sequence**



**Table 2-3 Existing Phase Intergreen Data for Junction 29/04**

	A	B	C	D	E	F	G	H	I
A	-	5	-	6	5	5	5	7	3
B	6	-	5	-	5	-	5	-	3
C	-	5	-	5	5	5	-	-	3
D	5	-	6	-	-	5	6	-	3
E	5	6	5	-	-	-	5	-	3
F	6	-	6	8	-	-	6	8	3
G	5	5	-	5	5	5	-	-	3
H	5	-	-	-	-	5	-	-	3
I	2	2	2	2	2	2	2	2	-

**Table 2-4 Proposed Phase Intergreen Data for Junction 29/04**

	A	B	C	D	E	F	G	H	I
A	-	5	-	8	8	-	5	8	5
B	7	-	5	-	11	5	8	9	-
C	-	7	-	5	5	9	8	-	6
D	5	-	6	-	7	9	-	5	5
E	17	17	17	17	-	-	-	-	17
F	-	17	17	17	-	-	-	-	17
G	17	17	17	-	-	-	-	-	-
H	17	17	-	17	-	-	-	-	-
I	7	-	6	8	10	5	-	-	-

### 2.4.5. Cycle Time Selection

The cycle times assessed in the proposed LinSig model are presented in **Table 2-5**. During both peak hours, an increase in cycle time has been proposed from the existing scenario, to accommodate for both the growth in traffic and the addition of an all-red pedestrian phase.

An initial assessment, per TfL recommendation, was conducted using cycle lengths 72s, 80s, 88s, 96s, 104s, 112s and 120s for AM and PM Peak Hours to assess the impact of the cycle time on DoS and queue length. Results of the assessment is presented in **Appendix C**. Based on the assessment, a 120 second cycle time has been proposed as it provides the most benefit in mitigating the impact of increased vehicular traffic and demand for the pedestrian phase in the Future Year 2026.

**Table 2-5 Proposed Cycle Times**

Peak Hour	Existing Cycle Time (s)*	Proposed Cycle Time (s)	
		2016	2026
AM Peak	82	120	120
PM Peak	81	120	120

\*Existing cycle times taken from observed average cycle times (see LMAP 3 report)

## 2.5. L504 Model Scenario

- Proposed – AM and PM peak 2016 with 120 second cycle time; and
- Proposed – AM and PM peak 2026 with 120 second cycle time.

## 2.6. L505 Flow Consistency Check

Traffic flows for the LinSig assessment were derived from the observed traffic counts undertaken in November 2016, as outlined at the LMAP 2 stage. For the 2016 scenario, the base flows have been retained apart from the restricted right turn movements. The right turn flows have been removed as it has been assumed that the right turning traffic will take alternative routes to reach their destination, away from the Harrow View / Headstone Drive junction.

To assess the future year, base traffic flows have been uplifted to 2026 flows. To uplift the flows TEMPRO growth factor (AM - 1.0868 and PM - 1.0897) from 2016 to 2026 has been applied to the background traffic. Flows for the committed developments (taken from the 2015 Harrow View Transport Assessment) and development trips generated from the Harrow View (Kodak site) Development were applied.

## 2.7. L506 Demand Dependent Stage Frequencies

When adding in the pedestrian phase, we have assumed that it is called in every cycle to model a worst-case scenario.

## 2.8. L507 Model Optimisation Strategy

As the proposed model includes changes to geometry and lane designations, under-utilised green times (UGT) have been removed from the base model based on the following:

- UGT was previously calculated on Harrow View (N) as right turning traffic was giving way in a short flare lane, therefore blocking the ahead movement. As the proposed design removes right turns from this approach, the UGT data has been also been removed.
- Bonus green times were added in the base model, to match observed cycle times with average green times for each phase. The proposed model has an increased cycle time and therefore have been removed from the proposed model.

## 2.9. L508 Degree of Saturation (DoS) Comparison

The proposed LinSig model has been optimised for Practical Reserve Capacity (PRC) and the results are resented in **Table 2-6**, showing a comparison of Degree of Saturation (DoS) for the LinSig base and proposed models. The results indicate that the junction will operate at over 100% DoS in 2026 future scenario in both the AM and PM peak hours on the majority of approaches. However, providing an all-red phase and signalised crossings will greatly improve safety for pedestrians at the junction.

The results of the 2016 preferred option flow show a reduction in DoS from the base scenario on the Harrow View (N), Headstone Drive and Headstone Gardens approaches during both the AM and PM peaks. The model predicts a maximum increase in DoS of 120.8% in FY 2026.

**Table 2-6 Comparison of Base and Proposed Model Degree of Saturation**

Approach	AM Peak				PM Peak			
	Existing Layout		Preferred Option		Existing Layout		Preferred Option	
	Base 2016 (CT-82s)	FY 2026 (CT-120s)	Base 2016 (CT-120s)	FY 2026 (CT-120s)	Base 2016 (CT-81s)	FY 2026 (CT-120s)	Base 2016 (CT-120s)	FY 2026 (CT-120s)
Harrow View (N) Left and Ahead	99.0%	108.1%	84.5%	113.8%	97.5%	117.4%	73.5%	89.2%
Harrow View (N) Right								
Headstone Drive Left and Ahead	94.3%	110.2%	83.6%	103.6%	95.9%	122.5%	87.7%	104.0%
Headstone Drive Right		110.0%						
Harrow View (S) Left	66.4%	88.4%	96.8%	116.8%	91.8%	92.0%	99.3%	121.5%
Harrow View (S) Ahead								
Headstone Gardens Left	94.5%	108.8%	100.5%	117.9%	91.8%	121.2%	98.2%	123.5%
Headstone Gardens Ahead								
Headstone Gardens Right	40.1%	48.1%			28.1%	35.7%		

## 2.10. L509 Queue Length Comparison

Table 2-7 shows the comparison of queue lengths for the LinSig base and proposed models. The results indicate that with the proposed improvements, in the 2016 scenario, queue lengths are predicted to decrease on Harrow View (N) but show a marginal increase on other approaches. The 2026 scenario predicts increased queueing on Harrow View (S), in both peak hours. Harrow View (N) and Headstone Drive showed a decrease in both peak hours and Headstone Gardens showed a marginal decrease in the PM peak hour. In general, the Preferred Option provides lower queues when compared to existing layout in FY 2026 while incorporating signalised crossings for pedestrians.

**Table 2-7 Comparison of Base and Proposed Model Queue Lengths (PCUs)**

Approach	AM Peak				PM Peak			
	Existing Layout		Preferred Option		Existing Layout		Preferred Option	
	Base 2016 (CT-82s)	FY 2026 (CT-120s)	Base 2016 (CT-120s)	FY 2026 (CT-120s)	Base 2016 (CT-81s)	FY 2026 (CT-120s)	Base 2016 (CT-120s)	FY 2026 (CT-120s)
Harrow View (N) Left and Ahead	22.3	57.1	13.7	60.2	21.4	80.4	11.4	17.2
Harrow View (N) Right								
Headstone Drive Left and Ahead	20.8	78.3	22.0	55.4	21.6	115.9	23.0	61.4
Headstone Drive Right								
Harrow View (S) Left	8.6	18.8	21.9	59.4	15.4	24.0	27.6	80.8
Harrow View (S) Ahead								
Headstone Gardens Left	21.3	70.5	37.5	100.4	17.2	108.7	30.1	114.5
Headstone Gardens Ahead								
Headstone Gardens Right	1.9	3.0			1.5	2.4		

### 3. Summary and Conclusion

Calibrated LinSig base models (for the LMAP 2 stage) and validated base models (for the LMAP 3 stage) were developed for the Harrow View / Headstone Drive junction for the AM (08:00 – 09:00) and PM (17:15 – 18:15) peak hours. The models were audited and subsequently approved by TfL.

Various options were assessed and Option 4B was selected as the preferred option based on the following:

- Improve safety for pedestrians by providing signalised pedestrian crossings on all arms, whilst mitigating predicted increases in future traffic flow due to proposed developments;
- Alternate routes available for the right turn prohibited movements from on Headstone Garden and Harrow View North; and
- Feedback from LBH Portfolio Manager.

consultation with the Portfolio Manager at LBH. The TfL approved LinSig base models were modified to reflect proposed design and signal staging changes at the junction. The proposal includes the following changes:

- Existing right turns to be prohibited on Headstone Gardens and Harrow View (N) approaches;
- Provision of advanced stop lines for cyclists on all approaches;
- Removal of existing pedestrian crossing islands. Signalised pedestrian crossings to be installed on all arms;
- Additional exit lanes on Harrow View (S) and Headstone Gardens;
- Existing right turn lane converted into straight ahead on Harrow View (N), with ahead and left lane retained;
- Existing right turn lane on Headstone Drive converted to ahead and right;
- Two lanes on Harrow View (S) consolidated into one lane; and
- Three lanes reduced to two on Headstone Gardens, removing the right turn and retaining the existing ahead and left.

The results of the assessment indicate that, during both peak hours, the cycle time would have to be increased to 120 seconds to provide sufficient green times on each approach and provide an all-red phase for pedestrians. The junction was also optimised for PRC in all scenarios to optimise the junction's performance.

A comparison of the base and proposed modelling results for FY 2026 indicate that the proposed changes to the junction are predicted to improve performance on Harrow View (N), Headstone Drive and Headstone Garden approaches. A marginal increase in DoS and queue is reported at Harrow View (S) approach. The results show the proposed option operates at 20% over theoretical capacity in the FY 2026, but allows right turn movement for the critical east approach while prohibiting right turns from the north and west approaches. However, the Preferred Option design caters for increased vehicular demand and provide signalised crossings for pedestrians. Therefore, it is recommended that the proposed design is progressed.



# Appendices

## Appendix A. Scheme Options

An optioneering process has been undertaken to develop several schemes that could be considered to improve the Goodwill to All junction for pedestrians and address the scheme objectives. Our approach has been to develop several options for the scheme proposal, which have subsequently been assessed in terms of their relative advantages and disadvantages, considering traffic modelling results and additional criteria outlined by the objectives of the study. The concept options developed for the study are summarised below.

**Table 3-1 Goodwill to All Junction Improvement Options**

Option	Details
Option 1 (Staggered Crossings)	<ul style="list-style-type: none"> <li>• Staggered signalised pedestrian crossings on all approaches;</li> <li>• Dedicated left turn lane on Headstone Drive;</li> <li>• Ahead movements also permitted on all right turn lanes; and</li> <li>• Headstone Gardens approach reduced from 3 lanes to 2.</li> </ul>
Option 2A (Straight Across Crossings)	<ul style="list-style-type: none"> <li>• Straight across signalised pedestrian crossings on all approaches;</li> <li>• Ahead and right permitted from Harrow View (N) with a two-lane exit;</li> <li>• Harrow View (S) reduced to one lane for ahead and left movements, right turn remains restricted; and</li> <li>• Headstone Drive and Headstone Gardens approaches remain as existing.</li> </ul>
Option 2B (Mix Stagger and Straight Across Crossings)	<ul style="list-style-type: none"> <li>• As Option 2A with staggered crossings on the Headstone Drive and Headstone Gardens approaches.</li> </ul>
Option 3 (Existing Layout with Straight Across Crossings)	<ul style="list-style-type: none"> <li>• Existing junction layout with straight across signalised pedestrian crossings on all approaches; and</li> <li>• Tightened junction by brining kerb lines in to reduce intergreens.</li> </ul>
Option 4A (Right Turns Prohibited)	<ul style="list-style-type: none"> <li>• Straight across signalised pedestrian crossings on all approaches;</li> <li>• Right turns restricted from all approaches;</li> <li>• Single lane approach on Harrow View (S); and</li> <li>• Two-lane exit on Harrow View (S).</li> </ul>
Option 4B (Preferred Option) (Headstone Dr. Right Turn Allowed)	<ul style="list-style-type: none"> <li>• As Option 4A with right turns permitted from Headstone Drive.</li> </ul>
Option 5 (Straight Across Crossings with Two-Lane Exit)	<ul style="list-style-type: none"> <li>• Straight across signalised pedestrian crossings on all approaches; and</li> <li>• Extended ahead and right turn flare on Harrow View (N) with a two-lane exit.</li> </ul>
Option 6 (Unconstrained Junction Layout)	<ul style="list-style-type: none"> <li>• Three lane approach on Harrow View (N);</li> <li>• Three lane approach on Headstone Drive;</li> <li>• Two lane approach on Harrow View (S);</li> <li>• Four lane approach on Headstone Gardens; and</li> <li>• Two lane exits on all approaches.</li> </ul>

### 3.1.2. 2016 Traffic Modelling Results

A total of 6 options and a further 2 sub options were tested using the validated base model. The results of the 2016 proposed models for the AM and PM peak hours are shown in Table 3-2 and Table 3-3 below.

**Table 3-2 AM Peak 2016 Degree of Saturation Results**

Approach	Degree of Saturation (%)								
	Base (82s CL)	Op 1	Op 2A	Op 2B	Op 3	Op 4A	Op 4B	Op 5	Op 6
Harrow View (N) Ahead and Left	99.0	136.7	105.6	97.9	113.6	80.2	84.5	111.9	65.8
Harrow View (N) Right									70.0
Headstone Drive Ahead and Left	94.3	138.3	111.1	116.7	106.6	63.8	82.1	105.9	69.2
Headstone Drive Right									
Harrow View (S) Left	66.4	113.9	118.7	113.7	112.9	84.3	96.8	105.7	72.1
Harrow View (S) Ahead									
Headstone Gardens Left	94.5	141.8	120.9	118.1	113.3	86.4	96.3	115.4	71.9
Headstone Gardens Ahead									71.9
Headstone Gardens Right	40.1		66.0	15.1	66.0			66.0	61.0

**Table 3-3 PM Peak 2016 Degree of Saturation Results**

Approach	Degree of Saturation (%)								
	Base (81s CL)	Op 1	Op 2A	Op 2B	Op 3	Op 4A	Op 4B	Op 5	Op 6
Harrow View (N) Ahead and Left	97.5	134.5	111.7	111.5	119.6	68.3	71.6	105.3	63.6
Harrow View (N) Right				111.7					
Headstone Drive Ahead and Left	95.9	133.4	122.0	115.9	117.0	64.5	87.7	117.7	80.1
Headstone Drive Right			121.1						
Harrow View (S) Left	91.8	123.9	119.1	114.8	116.5	85.5	96.2	118.6	80.8
Harrow View (S) Ahead									
Headstone Gardens Left	91.8	134.9	119.9	114.0	112.5	85.6	95.9	114.0	73.8
Headstone Gardens Ahead									73.8
Headstone Gardens Right	28.1		57.2	14.8	50.8			50.8	59.8

The results of the traffic modelling show that all options, excluding Options 4A, 4B and Option 6, show the junction operating over 100% DoS on a number of arms with the proposed designs, based on 2016 traffic flows. Although Option 6 shows the junction operating within capacity, this option would involve re-configuring the junction to include multiple extra lanes, at a junction that has limited space and a number of identified services.

### 3.1.3. 2026 Traffic Modelling Results

Each proposed design option was tested using proposed 2026 traffic flows, based on the uplift generated using TEMPRO, committed developments and the Kodak site trip generation. The results of the 2026 modelling are shown in Table 3-4 and Table 3-5.

**Table 3-4 AM Peak 2026 Degree of Saturation Results**

Approach	Degree of Saturation (%)								
	Base (82s CL)	Op 1	Op 2A	Op 2B	Op 3	Op 4A	Op 4B	Op 5	Op 6
Harrow View (N) Ahead and Left	124.2	172.1	141.6	136.3	139.5	105.2	110.4	144.5	78.1
Harrow View (N) Right									87.3
Headstone Drive Ahead and Left	122.5	175.6	140.0	143.4	140.9	79.3	103.6	140.0	86.8
Headstone Drive Right			128.1		135.1			128.1	85.3
Harrow View (S) Left	74.7	127.0	137.9	137.9	121.7	98.0	112.5	131.6	88.0
Harrow View (S) Ahead									
Headstone Gardens Left	116.5	173.0	145.0	141.6	142.3	103.5	115.4	145.0	86.3
Headstone Gardens Ahead									86.3
Headstone Gardens Right	43.8		71.3	16.3	71.3			71.3	72.8

**Table 3-5 PM Peak 2026 Degree of Saturation Results**

Approach	Degree of Saturation (%)								
	Base (81s CL)	Op 1	Op 2A	Op 2B	Op 3	Op 4A	Op 4B	Op 5	Op 6
Harrow View (N) Ahead and Left	181.1	162.8	124.1	115.6	135.1	84.9	86.8	128.2	79.7
Harrow View (N) Right				121.7					92.8
Headstone Drive Ahead and Left	115.9	166.5	140.1	140.4	138.0	74.8	104.0	140.1	96.4
Headstone Drive Right	113.0		150.9		134.2		117.8	134.2	92.9
Harrow View (S) Left	109.0	152.3	146.4	140.9	143.4	107.2	117.6	148.4	95.0
Harrow View (S) Ahead									
Headstone Gardens Left	118.6	162.7	147.3	140.2	141.7	105.8	120.8	147.3	96.2
Headstone Gardens Ahead									96.2
Headstone Gardens Right	30.7		62.5	15.1	55.5			55.5	77.6

The results for the 2026 traffic modelling show similar patterns the 2016 models, however with higher DoS results predicted on the approaches due to heavier traffic flows. All approaches, excluding Headstone Gardens right turn, exceed 90% DoS on almost all approaches during the peak hours.

As the junction was already operating at practical capacity on a number of approaches, adding pedestrian crossings into the junction increased the DoS for all scheme proposals. Several mitigation measures have been proposed to minimise the impact of introducing pedestrian crossings on the junction. Option 4A provided the best results from the modelling, as this option restricts right turn movements from all directions.

### 3.2. Preferred Option

It is recommended that the Option 4B with design layout changes, addition of pedestrian crossings and traffic management proposals to ban right turns should be taken forward. Although the 2026 future modelling scenario predicts that the model will operate over capacity, the benefits associated with providing signalised pedestrian crossings will increase safety at the junction.

# Appendix B. Preliminary Design (Consulation Plan - Preferred Option)

## Appendix C. Cycle Time Variation

To select an appropriate cycle time for the preferred option (4b), tests were run using the validated LinSig model to assess the impact of changing the cycle time in the 2026 future scenario. The results of Degree of Saturation (DoS) and Mean Max Queue are shown in Table C-1 and Table C-3. The preferred option has been tested with the base cycle time (82s), plus four variations.

As shown by the results below, the longer cycle time reduces both DoS and queue length results at the junction. Therefore, a cycle time of 120 seconds has been selected for the preferred option, as the modelling shows it will have the least impact on the operation of the junction in the 2026 future scenario.

**Table C-1 Option 4b 2026 Degree of Saturation (DoS) Results AM Peak**

Approach	AM Peak 2026 (Cycle Time) – DOS %						
	72s	80s	88s	96s	104s	112s	120s
Harrow View (N) Ahead and Left	135.5	134.1	126.7	121.1	116.8	113.3	110.4
Harrow View (N) Right							
Headstone Drive Ahead and Left	136.2	123.0	117.0	112.5	108.9	106.0	103.6
Headstone Drive Right							112.5
Harrow View (S) Ahead and Left	182.2	168.7	148.5	135.0	125.3	118.1	
Headstone Gardens Left	199.2	162.3	146.1	134.9	126.7	120.4	115.4
Headstone Gardens Ahead							
Headstone Gardens Right							

**Table C-2 Option 4b 2026 Degree of Saturation (DoS) Results PM Peak**

Approach	PM Peak 2026 (Cycle Time) - DOS %						
	72s	80s	88s	96s	104s	112s	120s
Harrow View (N) Ahead and Left	113.1	106.9	98.0	95.1	92.7	90.8	86.8
Harrow View (N) Right							
Headstone Drive Ahead and Left	130.5	121.3	118.1	112.6	108.3	104.9	104.0
Headstone Drive Right						110.0	117.8
Harrow View (S) Ahead and Left	198.8	173.6	148.5	138.8	131.6	126.0	117.6
Headstone Gardens Left	194.7	166.3	154.3	140.8	131.1	123.8	120.8
Headstone Gardens Ahead							
Headstone Gardens Right							

**Table C-3 Option 4b 2026 Queue Length Results AM Peak**

Approach	AM Peak 2026 (Cycle Time)						
	72s	80s	88s	96s	104s	112s	120s
Harrow View (N) Ahead and Left	106.8	90.5	89.4	77.8	68.3	60.3	54.0
Harrow View (N) Right							
Headstone Drive Ahead and Left	117.9	98.9	73.9	63.3	55.3	49.6	45.1
Headstone Drive Right							
Harrow View (S) Ahead and Left	128.9	94.9	83.0	59.8	41.4	28.9	23.4
Headstone Gardens Left	211.1	176.9	138.0	116.8	99.2	84.6	72.6
Headstone Gardens Ahead							
Headstone Gardens Right							

**Table C-4 Option 4b 2026 Queue Length Results PM Peak**

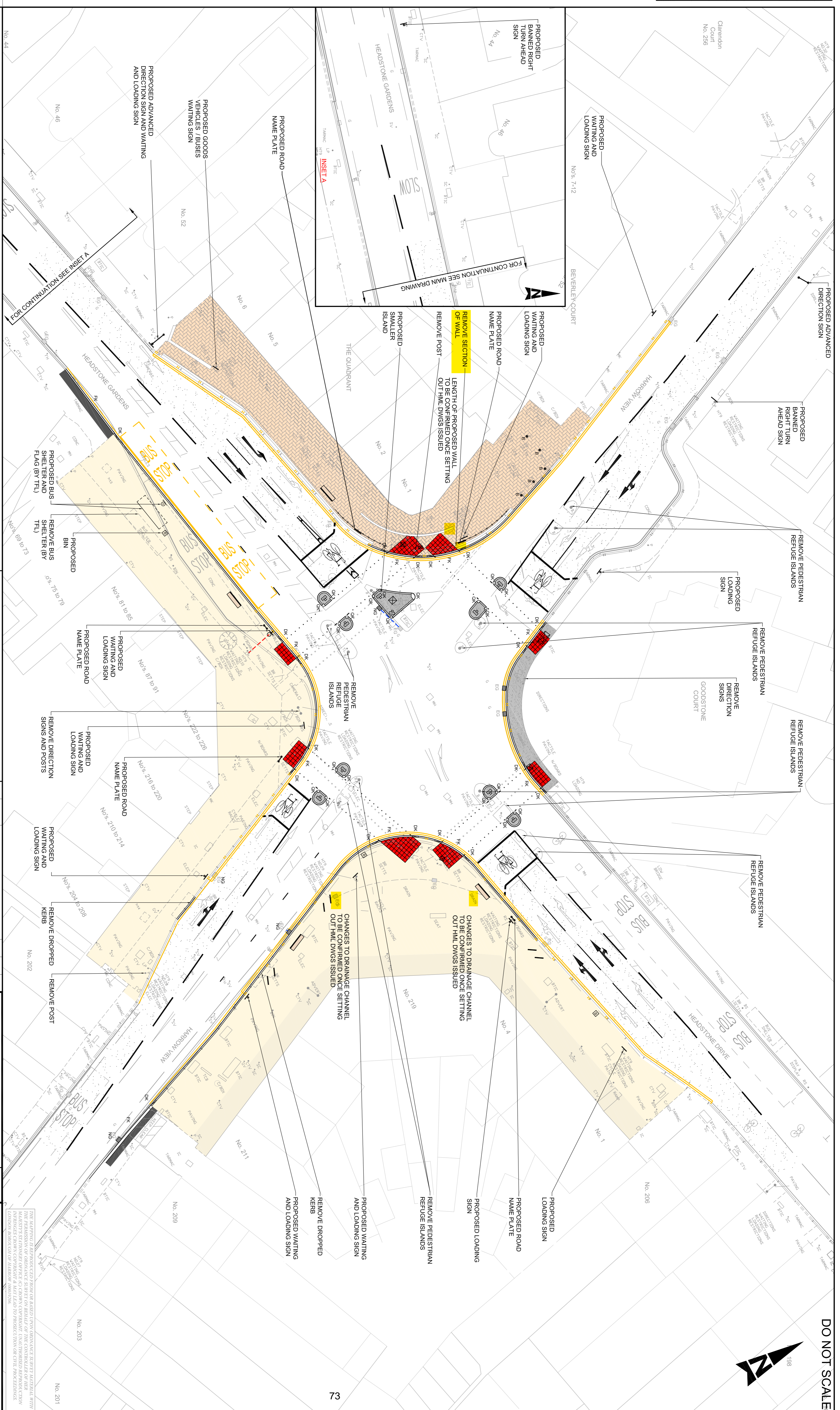
Approach	PM Peak 2026 (Cycle Time)						
	72s	80s	88s	96s	104s	112s	120s
Harrow View (N) Ahead and Left	40.6	29.0	29.8	23.0	19.8	18.7	20.2
Harrow View (N) Right							
Headstone Drive Ahead and Left	108.8	88.1	62.1	51.1	43.7	44.9	43.2
Headstone Drive Right							
Harrow View (S) Ahead and Left	146.5	116.9	108.2	87.4	70.3	56.3	54.9
Headstone Gardens Left	213.7	177.8	137.3	114.9	96.3	81.0	68.4
Headstone Gardens Ahead							
Headstone Gardens Right							

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**NOTES:**

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
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- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWINGS:
  - PROPOSED GENERAL ARRANGEMENTS
  - PROPOSED SIGN AND POST
  - PROPOSED REBOUND GLASSON SIGNMASTER ROLLAND
  - PROPOSED VISUAL GUARD RAILING (BY FARNIKA LTD)
  - PROPOSED LAMP COLUMN

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

**CONSTRUCTION**

NONE

**MAINTENANCE/CLEANING**

NONE

**DECOMMISSIONING/DEMOLITION**

NONE

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

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<p><b>PROPOSED GENERAL ARRANGEMENTS</b></p> <p>HARROW VIEW / HEADSTONE DRIVE</p>		<p>Project Title: HARROW VIEW / HEADSTONE DRIVE</p> <p>Drawing Title: PROPOSED GENERAL ARRANGEMENTS</p> <p>Drawing Number: HCGWJI - DR - CH - 0001</p> <p>Volume: ATK - HGN -</p> <p>Revision: P1</p>

DO NOT SCALE

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