Report No.
ES13021

London Borough of Bromley

PART ONE - PUBLIC

Decision Maker:	**Environment Portfolio Holder** **For Pre-Decision Scrutiny by the Environment PDS Committee on**
Date:	**16 April 2013**
Decision Type:	Non-Urgent Executive Non-Key
Title:	**TRAFFIC CONGESTION NEAR THE NUGENT CENTRE, PROPOSED TRAFFIC SIGNALS**
Contact Officer:	Ismiel Alobeid, Senior Traffic Engineer Tel: 020 8461 7487 E-mail: Ismiel.Alobeid@bromley.gov.uk
Chief Officer:	Nigel Davies, Executive Director of Environment and Community Services
Ward:	Cray Valley East & Cray Valley West

1. Reason for report

1.1 The A224 is one of Bromley's most congested roads, with heavy traffic present throughout the day. Complaints have also been received concerning congestion and the number of regularly occurring damage only accidents at the junction of the Nugent Centre retail park exit with Cray Avenue. The purpose of this report is to recommend changes to the entrance to the Nugent Centre and to nearby locations, in order to reduce congestion and to improve safety.

---

2. RECOMMENDATION(S)

2.1 The Portfolio Holder agrees the proposal to implement Traffic signals at the Entrance/Exit of the Nugent retail park, as detailed in drawings labelled '11239- 01' and that the existing staggered Pelican crossing be removed and a full pedestrian crossing stage be incorporated in the new proposed traffic signals.

2.2 The bus lane, which is currently suspended, be permanently removed.

2.3 Authority be delegated to the Executive Director of Environment and Community Services, in consultation with the Portfoilio Holder and Ward Members, to implement any changes considered necessary at the detailed design stage.

2.4 The scheme construction costs of £80k be met from the Transport for London funding for Congestion Relief Schemes.

2.5 The current right turn bans at the nearby junction with Leesons Hill and Station Road be retained to improve traffic flow along this route.

Corporate Policy

1. Policy Status: Existing Policy:
2. BBB Priority: Quality Environment:

Financial

1. Cost of proposal: Estimated Cost £80k:
2. Ongoing costs: Non-Recurring Cost:
3. Budget head/performance centre: TfL funding for Congestion Relief 2013/14
4. Total current budget for this head: £390K has been allocated to the northern section of the Orpington Bypass in 2013/14, of which £298k is the current uncommitted balance
5. Source of funding: TfL LIP Funding 2013/14

Staff

1. Number of staff (current and additional): 3
2. If from existing staff resources, number of staff hours: 90

Legal

1. Legal Requirement: Non-Statutory - Government Guidance:
2. Call-in: Applicable:

Customer Impact

1. Estimated number of users/beneficiaries (current and projected): All road users on the A224 will benefit from the installation of a traffic signal at this location.

Ward Councillor Views

1. Have Ward Councillors been asked for comments? Yes
2. Summary of Ward Councillor's comments: Councillor Ince and Cllr Fortune are supportive of measures to improve traffic flow at the entrance to the Nugent Centre and support signalisation. Cllr Fortune does not support retaining the current right turn ban at the junction of Leesons Hill, as he has had representation from local residents groups which are opposed to this ban remaining in place. However, Cllr Fortune considers that the recommendation should stand and be considered by the PDS committee and the Portfolio Holder.

3. COMMENTARY

3.1 The A224 is one of Bromley's most congested roads, with heavy traffic present throughout the day.

3.2 Since the completion of Nugent Retail Park in 2007 traffic has increased in this area, and queuing particularly from vehicles turning right onto Cray Avenue has been observed to cause delays to traffic. The junction has generated many complaints from residents and visitors concerned with the level of congestion locally. In addition there have been many complaints concerning the regularity of vehicular collisions, although most are 'damage-only' incidents. A recent accident study showed that there were seventeen reported injury accidents within the last five years ending 31 August 2012; all but one resulted in slight injuries.

3.3 Vehicles edging out from the Retail Park, intending to turn right, often block the path of traffic heading Southbound on the A224 Cray Avenue. These right-turning vehicles then become trapped in the middle of the road as northbound traffic fails to give way, thereby resulting in congestion.

3.4 A staggered type Pelican crossing located south of the exit adds to the congestion as shoppers make frequent demands to cross Cray Avenue.

3.5 Due to the difficulty vehicles have exiting the Retail Park, many drivers prefer to park in Cray Valley Road and walk across to the shops. This practice was highlighted in a traffic survey, and parking restrictions were implemented to discourage this behaviour as it was causing congestion in Cray Valley Road.

3.6 The purpose of this report is to recommend removing the existing pelican crossing and adding traffic signals with pedestrian facilities at the Nugent Centre entrance.

This junction supports a high volume of traffic; see below PM Peak flow:

Origin	Destination	PM Peak Flow in PCUs (1 PCU = 1 Car & 1 Bus =2 PCU)
Retail Park	Cray Avenue (Southbound)	100
Retail Park	Cray Avenue (Northbound)	90
Cray Avenue (Southbound)	Left turn into Retail Park	130
Cray Avenue (Northbound)	Right turn into Retail Park	201
Cray Avenue (Southbound)	Cray Avenue (Northbound)	780
Cray Avenue (Northbound)	Cray Avenue (Southbound)	684

3.7 In February 2012 a study was commissioned to investigate the best available options to ease congestion at the Nugent entrance. The report identified various contributing factors. Four possible congestion relieving options were put forward and are listed below:

- Introduce a Right Turn Ban out of the retail park
- Install a Roundabout at the junction
- Take no action
- Install Traffic Signals with all Round Pedestrian Facility

The relative merits of each are discussed briefly below.

3.8 The Right Turn ban would improve the operation of the junction but it would be likely to encourage U-turning on Cray Avenue. In addition it could lead to congestion problems on the A224 as drivers seek alternative routes.

3.9 The idea of a Roundabout was also discussed but it was thought the dominant traffic flow on the A224 would make it difficult for drivers exiting from the retail park. Also, the existing puffin crossing will still cause delay due to the regularity of use and would need to be retained, as a roundabout would not help pedestrians cross Cray Avenue.

3.10 Take no action; this is not a sustainable option, as we often receive complaints from residents concerning congestion and the frequency of accidents. Many drivers park in Cray Valley Road because they have concerns about the difficulty in exiting and entering the retail park. In addition, the existing Pelican crossing helps to add to the delay by the frequent demand for a crossing stage.

Recommendation

3.11 A Signal Controlled Junction is the preferred option as this will give a level of control over vehicles exiting and entering the retail park. The existing Staggered Pelican crossing will be decommissioned, and incorporated into the new junction. By including the pedestrian crossing in the new junction we will be able to use the “walk with traffic” design, this will minimise delay as some traffic will be able to proceed while pedestrians are crossing. Accidents will be reduced as each movement will have its own movement stage, avoiding give way operation. Also, shoppers will be more likely to park in the retail park’s car park, because they will now have a dedicated exit stage.

3.12 In order for this design to work effectively, it is recommended that the section of bus lane that is currently suspended be permanently removed. Although this may cause a slight delay to buses along this section of the A224, the overall delays to buses (in both directions) should be reduced by the junction improvements proposed.

3.13 The preliminary design is shown in drawing 11239-01. However, some design details may change at the detailed design stage, including a possible relocation of the bus stop on the southbound approach to the entrance, plus the possible addition of a left turn filter lane into the Nugent Centre that would bypass the new traffic signals.

3.14 Traffic modelling has been conducted showing the effect of ‘do nothing’ compared to the installation of a traffic signal with all-round pedestrian crossing (See table).

Traffic Model Results

AM Peak Traffic Flow (Worst Case)	Practical Reserve Capacity (Capacity (-) is Overcapacity)	Vehicular delay in Hours
Do Nothing	-29% PRC	59 Vehicles
Install Traffic Signal	- 2.3% PRC	28 Vehicles

Nearby Junctions

3.15 It is proposed that the next stage of improving traffic flow along the A224 is to consider linking this proposed new junction to the Leesons Hill traffic signals and using Urban Traffic Control (UTC) along much of the length of the A224. UTC is a strategy used by Transport for London in which they can take direct control of any traffic signal including crossings. They usually do this when long traffic queues are detected and CCTV is usually required for visibility.

3.16 It is also proposed that an options report be prepared to consider improvements for the junction of Leesons Hill and Station Road, where they meet the A224, plus at the junction of Station Approach with the A224.

3.17 There is currently a right turn ban in place at the Leesons Hill junction, that was incorporated during the closure of the Chislehurst Road bridge as the Leesons/Sevenoaks Way junction was on the diversionary route. The effect of installing this ban has been to improve traffic flow along the A224 and to reduce the number of injury accidents occurring at this junction. In the three year study period there were twelve injury collisions at the junction, of which six involved vehicles turning right. Only one of these right turn collisions occurred since the right turn ban was imposed. Officers therefore recommend that the ban remains in place for congestion and safety reasons.

4 POLICY IMPLICATIONS

4.1 The proposal in this report is within existing policy. In 'Building a Better Bromley 2020 Vision – Quality Environment' one of the stated issues is improving the road network for all users. The Environment Portfolio Plan 2012-15 has as an aim improving the road network and journey times for all users.

5. FINANCIAL IMPLICATIONS

5.1 The estimated cost of the works is £80k. This will be funded from the 2013/14 TfL LIP budget for congestion relief which has an allocation of £390k set aside for the Orpington bypass northern section. An uncommitted balance of £298k is available to fund this scheme. Negotiation will also be undertaken with the Nugent Centre management to seek a contribution to the cost of the scheme.

Non-Applicable Sections:	Legal and Personnel Implications
Background Documents: (Access via Contact Officer)	Nugent Retail Park Signalisation. Leesons Hill congestion data.