

## Cabinet 14 March 2016

# Report from the Strategic Director of Regeneration and Environment

For Action Wards Affected:

**ALL** 

### **Highways Capital Scheme Programme 2016-17**

#### 1.0 SUMMARY

- 1.1 In 2015/16 approximately £4.629m will be spent improving the condition of Brent's highways, including resurfacing of 9.5 miles of road and 4.3 miles of pavement. This equates to 3% of the road network and less than 1% of the pavements. This investment includes £3.55m of Brent capital and £1.079k of TfL capital funding for principal (A road) maintenance.
- 1.2 During 2016/17 it is proposed to allocate £3.55m of Brent capital to maintain the highway network, subject to approval of the Budget and Council Tax report to be submitted to Cabinet and Full Council in February 2016.
- 1.3 In addition to £3.55m of Brent capital, TfL have on 22nd December 2015 confirmed funding of £0.901m of Principal Road (A-road) improvements. This is a decrease against the 2015/16 Principal road programme value of £1.079 m.
- 1.4 This report sets out recommendations for how Brent's £3.55m capital budget should be allocated during 2016/17 through a prioritised programme of:
  - Major and minor pavement upgrades;
  - Major Road resurfacing;
  - Preventative maintenance:
  - Improvements to the public realm, and
  - Renewal of Road Markings
- 1.5 This programme criteria has been shaped in discussion with members and will be delivered using Brent's Highway Asset Management Planning (HAMP) approach, which provides a systematic long term methodology for maintaining the borough's highways. The HAMP approach, which was started in 2014/15, will deliver better value for money through adoption of a sensible and forward thinking maintenance plan.

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- 1.6 In line with public and member priorities further investment in the roads and pavement network will also be considered this year to improve our performance and reduce reliance on reactive maintenance. Future proposals and priorities to cover a medium term (up to 5 years) approach will see more miles of road maintained each year and our customers will have greater visibility as to the relative status of their roads. As such proposals for 2017/18 priorities will be submitted to a later meeting of the Cabinet as part of this ongoing process. Furthermore the outcome based review of the physical, social and environmental regeneration, which has just begun, will seek to secure greater strategic alignment between the council's vision and its investments in the borough's infrastructure
- 1.7 Future investment will be aimed also to address the following; achieving greater equality in condition between footways and carriageways; addressing localised conditions in an area patching programme to extend the life of roads; accommodating members' requests for regenerating High Streets by giving them greater priority, so improving their look and feel; and consideration of alternative materials, for instance replacing slabs with tarmac when doing full footway renewals. All this will be set out in greater detail in the future "Investment in Highways Report"

#### 2.0 RECOMMENDATIONS

- 2.1 That the Cabinet approves investment of £3.55m of Brent capital funding as summarised in Section 6.0, subject to approval of the Budget and Council Tax report in February 2016.
- 2.2 That the Cabinet approves the proposed highways maintenance programme for 2016-17 as detailed in Appendix B.

#### 3.0 LAST YEAR'S HIGHWAYS INVESTMENT 2015/16

- 3.1 Brent's annual transportation investment programme consists of; Brent capital funding, which is used to fund the roads maintenance programme for local roads; capital funding provided by Transport for London, which is used to deliver principal (strategic) road maintenance and; a programme of highway improvement schemes and sustainable transport projects delivered through the LIP (TFL funded Local Implementation Plan programme).
- 3.2 By 31 March 2016, approximately £4.629m will have been spent on maintaining Brent's highway infrastructure funded through £3.55m of Brent capital, and £1.079 million of principal road maintenance investment. Appendix A provides details of the works delivered, which will result in:
  - 9.5 miles of roads being resurfaced; and
  - 4.3 miles of footways being resurfaced and improved.
- 3.3 Members will recall that Brent entered into an 8 year contract on 1st April 2013 to provide a range of highway services, including planned and reactive maintenance works. Our provider was procured through the London Highways Alliance Contract (LoHAC). Whilst recognising that further improvements in the maintenance regime are required, the contractor's performance is satisfactory and better than the other London providers.

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- 3.4 Through the 2015/16 LIP programme and combined with Section 106 developer contributions, an additional £5.968m is being invested in improving Brent's roads, footways and transport infrastructure. This includes:
  - £4.841m of Local Implementation Plan LIP funding, including £1.596m for Quietways Cycle Route; and
  - £1.127m S106 developer contributions.
- 3.6 In addition the Council is on target to deliver a wide range of infrastructure and initiatives in line with TfL expectations. To date we have delivered, or are in the process of delivering, the following infrastructure on Brent's streets as part of a range of schemes and road safety initiatives:
  - 190 areas are being provided with new waiting and loading restrictions to reduce congestion and improve safety;
  - 19 crossings have been improved to provide facilities for disabled people;
  - 225 on and off-street cycle parking spaces have been provided (including 6 Lambeth bike hangars providing 36 secure spaces)
  - 1200 children and 450 adults have received cycle training;
  - 4.4 km of new cycle routes have been delivered;
  - 17 junctions have been improved to help cyclists;
  - 11 new pedestrian crossings have been provided
  - 106 road safety education events have been held;
  - 48 bus stops are being improved to help make boarding easier and passenger waiting facilities better; and
  - 20 new street trees have been planted

#### 4.0 MANAGING HIGHWAYS ASSETS

- 4.1 Highway infrastructure is the most visible, well-used and valuable physical asset owned by the Council. Brent's highways assets include:
  - 505 km (315 miles) of roads;
  - 847 km (529 miles) of pavements;
  - 53 bridges and structures:
  - 24,500 road gullies;
  - 10,000 street trees; and
  - 22,848 street lights and other illuminated street furniture.

The latest estimate for the value of this asset is just over £3.89bn.

4.2 The table below sets out the condition of Brent's roads by indicating the percentage of each length of road type where maintenance should be considered.

	% of roads where maintenance should be considered		
Year	A class roads	B and C class roads	Unclassified roads
2008/2009	8%	9%	23%
2009/2010	11%	9%	23%
2010/2011	9%	7%	27%
2011/2012	9%	6%	26%
2012/2013	8%	9%	20%

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2013/2014	13%	11%	21%
2014/2015	16%	16%	21%
2015/2016	6%	10%	21%

- 4.3 Currently 21% of Brent's unclassified roads and 7.6% of the most used pavements are in need of substantial maintenance. Unclassified roads make up 80% of all borough roads. Classified roads are in slightly better condition, but around a significant proportion of them still require structural maintenance. There are a number of factors affecting the deterioration of roads, the various effects of which are impossible to disaggregate.
- 4.4 As time goes on roads that are currently in good condition will deteriorate, just like any physical asset such as a house or a vehicle. To keep on top of the deterioration of our asset we must invest continually in maintenance.
- 4.5 Up until 2014/15 Brent adopted a "worst-first" approach to highways asset management. We identified the worst condition roads and developed one year programmes of road resurfacing and reconstruction.
- 4.6 To better manage the way we maintain our highways the council adopted the Highway Asset Management Plan (HAMP) in February 2014. The HAMP sets out a strategy based on the need to repair our assets on a regular basis, before they fail, so as to extend their lifespans and reduce higher long term repair costs, and provide the best value for money to local people
- 4.7 The strategy initially involves introducing a programme of major resurfacing works along with preventative maintenance, which will take the form of regular thin surface repairs to water seal roads and improve their anti-skid properties. Thin surfacing is less than a third of the cost of major resurfacing works but can extend the life of a road considerably by approximately 7-10 years, meaning that you can treat 3kms for the price of 1km of major resurfacing.
- 4.8 A 2 year work programme of both major resurfacing and preventative maintenance has therefore been developed from 2014/15 onwards. During 2016/17 it is expected that this ongoing work will produce a programme of works priorities to cover the medium term up to 5 years from 2017/18. Proposals arising from this work for priority schemes and budget allocations for 2017/18 and future years will be submitted to a later meeting of the Cabinet. This will be the next step in long-term programme development for which a 10 year programme period is recommended to maximise the benefits. This is an aspiration that we will continue to work towards.
- 4.9 A key question is how we will decide which roads should have preventative maintenance treatment and which we need to undertake major resurfacing works on. For this, the highway condition survey data is interrogated. Preventative maintenance is appropriate where the deterioration in the surface has not yet resulted in a problems with the underlying structure of the road. Major resurfacing is required when deterioration has progressed further and so more extensive (and more expensive) repairs are necessary.
- 4.10 During 2015/16 we have assessed the network to determine the current condition. We have then taken account of a range of factors to define relative priorities for

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maintenance. We have used a scoring system to identify roads and pavements suitable for major resurfacing, preventative maintenance or upgrades that assessed the following:

- Network Condition condition-based on outcomes of annual condition surveys and inspection programmes;
- Network hierarchy and traffic usage, including proximity of local schools / colleges;
- Risk Level of risk in terms of numbers of accident claims, historic pothole repair records and/or collision history; and
- Value for Money The cost effectiveness of preserving roads that have not yet fully deteriorated and fixing those which have.
- 4.11 We continue to take account of councillor nominations for road maintenance and, where a number of schemes attract the same or similar scores, we prioritise councillor nominated schemes earlier in our proposed maintenance programmes. We may also deviate from priority order where, for instance, a section of road in relatively good condition may be resurfaced if it is on a street where the rest of the road needs maintenance and it would be illogical, or impractical, not to resurface the whole street.
- 4.12 This year, as a result of member feedback from business, we are prioritising our High Streets to assist regeneration by improving the look and feel of the environment.
- 4.13 The optimum level of investment when starting to adopt preventative maintenance has been identified through consultation with authorities that have implemented HAMP principles. Investment of approximately 30% of carriageway resurfacing budgets is considered to be optimum when beginning to introduce preventative maintenance programmes. This balances investment to save future maintenance costs with necessary and urgent repairs. As the asset management regime is developed, this 30:70 split will be tested to find the optimum mix of road and pavement treatments to achieve the desired outcomes.
- 4.14 We have therefore continued with the approach approved in the corresponding report the year before last (Report to the 17<sup>th</sup> February 2014 Executive: Highways Asset Management Plan and Capital Scheme Programme 2014-16) to invest around 30% of the unclassified carriageway resurfacing budget in preventative maintenance over the next two to three years (i.e. from 2014/15 onwards), and 70% on major resurfacing works. If there is any reduction or increase in funding over coming years, this 70/30 percentage split be applied to revised budgets.
- 4.15 The 2016/2017 programme drafted last year has been reviewed and amended in light of condition survey data now available to produce the proposals included within this report.
- 4.16 Future investment will be aimed also to address the following; achieving greater equality in condition between footways and carriageways; addressing localised conditions in an area patching programme to extend the life of roads; accommodating members' requests for regenerating High Streets by giving them greater priority, improving their look and feel; and consideration of alternative materials, for instance replacing slabs with tarmac when doing full footway renewals. All this will be set out in greater detail in the future "Investment in Highways Report"

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#### 5.0 HIGHWAYS INVESTMENT DURING 2016/17

### 5.1 Carriageway Resurfacing

- 5.1.1 The 2016/17 carriageway maintenance programme is shown in Appendix B, and in map form in Appendix D. Appendix E illustrates the location of principal and other classified roads within Brent for information. Roads have been prioritised from the results of an independent network condition survey, with input from local engineering staff, who assess the road against the wide range of factors noted above.
- 5.1.3 In summary the proposed carriageway resurfacing programme of £1715m includes:
  - £1.365m to improve the condition of the unclassified network divided between major resurfacing and preventative maintenance schemes (see Appendix B for list of streets that have been selected):
  - £200k to resurface B and C class roads; and
  - £150k to resurface short sections of road (300m or less) that have deteriorated and are in need of resurfacing, but where the whole street is generally in good repair;
- 5.1.5 Each year Brent is provided with an allocation from TfL to renew principal (A class) roads in the Borough. This programme of works is developed through an assessment of need taken from the most recent condition surveys provided by, and reviewed by, TfL. A draft programme for principal road renewals is contained in Appendix B.
- 5.1.6 TfL have allocated "A" road funding of £0.901m to Brent for 2016/17. TfL requests that Boroughs include an additional 25% to their provisional allocation to enable them to put forward one or more reserve schemes. This provides an opportunity for additional schemes to be delivered each year if additional funding becomes available. This "reserve" bid adds a further £0.225m (approx.) to the provisional programme value to make a total A Road bid value of £1,126m. Members should note that reserve scheme funding relies on TfL funding availability and is not guaranteed.
- 5.1.7 It is proposed to utilise up to £5,000 of capital funding for carriageway resurfacing to undertake asset condition surveys during 2016/17. These surveys will assist to prepare a long term asset management programme and confirm future year's capital programmes.

### 5.2 Footway Repairs

- 5.2.1 The latest survey of the condition of the busiest footways in the borough (prestige areas in town centres and busy urban shopping areas) indicates a level of 7.6 % where maintenance should be considered. High usage footways form approximately 10% of the footway network
- 5.2.2 In addition, due to increased coverage of our condition surveys, for the first time we are able to produce figures reflecting the overall condition of all our footways. The overall percentage of all classes of footways where maintenance should be considered is 37%. The percentage of local footways where maintenance should be

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considered is 29%. As "Local" footways, which are lower priority for maintenance funding, it is not surprising that this is a higher percentage than we have had historically for the "high usage" footways.

- 5.2.3 There has also been continuing numbers of requests for footway repairs and responsive maintenance on unclassified roads during the current financial year. Accordingly, it is recommended that £1.510m, approximately 43% of this year's overall budget, be assigned to improving the condition of footways in the Borough. Appendix B contains details of the footways which have been prioritised for improvement.
- 5.2.4 The council has maintained its approach to investing equally in road and pavement defects, after investment in other essential highways works has been accounted for. However, the even spread of financial investment does not equate to an equal volume of roads and pavements repaired, as pavement work is much more expensive per metre. The table in appendix B and the maps show what will be achieved in 2016/17. Additional investment will be sought later in the year for more pavement works given the known concerns of residents. Detailed work on a 5 year investment plan is being finalised and it is anticipated that this will come to Cabinet in June, including a list of pavements being prioritised for consideration of further investment.
- 5.2.5 It is proposed to set aside £50,000 out of the £1.510m to systematically replace slabs across vehicle crossings with concrete or tarmac, reducing the amount of cracked and broken slabs requiring repair. We would aim to do whole streets at a time. At some point in the past, it appears the practice in Brent was that vehicle crossings were built with two materials. The front section (nearest the kerb) was of tarmac / concrete construction. At the back, the footway slabs carried on over the vehicle crossing. The advantage of this was that the footway was continuous for the full length of the street and not interrupted (visually) by vehicle crossings. The disadvantage of this is that cars are driving over slabs. In the past when cars where smaller and lighter, this may not have been a problem. However, now we are finding that slabs are damaged on a regular basis which creates hazards for pedestrians and is a drain on revenue maintenance budgets.
- 5.2.6 Similarly to the issues with short sections of road that are in poor condition, short lengths of footway that are in poor condition can cost a significant amount in reactive maintenance repairs, as well as being a cause of accident claims. It is therefore proposed to invest £150k of this year's overall budget to resurface short sections of footway.
- 5.2.7 It is proposed to utilise up to £25,000 of capital funding for footway improvements to undertake asset condition surveys during 2015/16. These surveys will be used to confirm future year's capital programmes.

#### 5.3 Reducing the risk of flooding in Brent

5.3.1 Gully cleaning is prioritised to prevent local flooding, with both scheduled and reactive gully cleansing activities taking place. There are approximately 24,500 road gullies in the borough. These are cleaned as part of a cyclic maintenance programme procured through the London Highways Alliance Contract (LoHAC). The cleaning cycle includes:

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- High-priority (regularly blocking) gullies cleaned every six months;
- 1,300 medium-priority gullies cleaned each year; and
- 14,100 gullies cleaned every eighteen months as part of a rolling programme.
- 5.3.2 The cleansing frequencies depend on the likelihood of gullies filling up with silt. Monitoring takes place of the contractor's performance and currently the contractor is on programme. On- site monitoring of cleansing indicates that quality of cleansing has improved with latest monitoring scores giving a 100% pass rate (i.e. all gullies are being cleaned well). Hard to reach gullies (i.e. where there are parked cars over them, or on busy corners) are subject to repeat attendance until cleaned; if necessary other measures (e.g. suspending parking bays) will be considered where necessary.
- 5.3.3 Gullies are also cleaned on a reactive basis in response to reports from members of the public or Councillors of blocked gullies.
- 5.3.4 Going forward, once the existing regime has yielded as much as it can it terms of cleansing, it will be made more efficient. Measurements of silt levels taken when gullies are cleaned will indicate whether the existing cleansing frequency is too great or too little. The regime can then be redesigned to be more efficient so that the silt level doesn't become unacceptably high and block the gully.
- 5.3.5 Small scale schemes are implemented to address localised flooding problems such as broken gullies or gully pipes, or localised gully capacity problems. Larger scale capacity problems are within the remit of Thames Water who are responsible for the main drainage system. Whilst maintenance helps, rainfall which is more intense than the capacity of the network can cope with will still result in localised flooding, which will nevertheless dissipate away down the drains given time
- 5.3.6 We are anticipating similar funding from Defra for flood risk management as was received in 2015/16 which translates into a revenue budget of £127k. This will be used for alleviating flooding in the borough and for improvements/upgrades to existing highway drainage as per the following proposed works programme:

Flood Management Scheme	Proposed works	Cost Estimate
Various locations in highway	Installation of Land Drainage	£10K
Northwick Park	Installation of Land Drainage	£20K
Silk Stream (Barnet agreement)	Trash screen cleaning at A5 Hendon	£15K
Tramway Ditch, Stag Lane, NW 9	Inspect and clear watercourses	£3K
Northwick Park, Kenton	inspect and clear watercourses	£8K
Various location	Installation of new gullies to prevent flooding	£25K
Reactive gully cleaning and various works undertaken through maintenance programme	Clean and repair gullies, replace missing covers, CCTV survey	£45K
LoDEG	Drainage Engineering Group Subscription	£1k
	Total	£127K

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#### 5.4 Investing in Public Realm

- 5.4.1 The Public Realm programme involves three areas of highways capital programme investment:
  - a. Works to strengthen and protect footways and soft verges;
  - b. Works to improve areas of "marginal" land that are part of the public highway but are not footways, verges or carriageways; and
  - c. Works to maintain, upgrade, rationalise or replace directional and regulatory highway signs.
  - d. Works to reinstate abandoned tree pits.

It is proposed to allocate £125k (3%) of the 2016/17 capital budget to these areas of work.

#### 5.5 Improving Brent's bridges and structures

- 5.5.1 The Council are responsible for 67 highway structures, including 52 bridges and 13 culverts. The majority of bridges are small structures spanning brooks. Funding for bridge maintenance is allocated by Transport for London on a regional priority basis. The London Bridge Engineering Group is currently reviewing the pan-London programme and funding will be confirmed in February 2016.
- 5.5.2 Although funding has not been confirmed, the Bridge Strengthening Programme 2016/17 Bid Grand Total is £345k, made up for bids for 6 schemes

Princess Federica Retaining Wall RW02

Ledway Drive B67

Northview Crescent over Mitchell Brook C02

North End Road West B62

Twybridge Way North (1) over Canal Feeder B49

Twybridge Way South (2) over Canal Feeder B50

Assessment
Feasibility

Design

Divert Stats

Strengthening

#### 5.6 Renewal of Road markings

- 5.6.1 In recent years up until 2015/16 there was no funding allocated for the systematic renewal of road markings. Consequently many road markings had faded beyond the point we would wish them to; those road markings which had faded more than 30% and which are deemed high priority are renewed under the LoHAC contract. However, following on from the practice started in 2015/16 officers recommend the continuation of a £50,000 annual renewal programme. This programme will continue to concentrate on the renewal of those markings most in need of attention (e.g. on main roads and at junctions) before in subsequent years establishing a borough-wide schedule of road marking restoration.
- 5.6.2 Renewal of those road markings which are required for enforcement are managed by the Parking & Lighting Service, with a 2015/16 budget of approximately £50,000

#### 6.0 FINANCIAL IMPLICATIONS

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6.1 The table below summarises the proposed allocation of Brent capital funding for highways maintenance during 2016-17:

Schemes	% of Capital Budget	Amount (£ 000's)
BRENT CAPITAL – Footways		
Major footway upgrade	42.54%	1,510
Footway upgrades – short sections	4.23%	150
Improvements to the public realm	3.52%	125
Sub-total	50.28%	1,785
BRENT CAPITAL – Carriageways		
Major resurfacing unclassified roads	27.18%	965
Preventative maintenance unclassified roads*	11.27%	400
Major resurfacing of B&C roads	5.63%	200
Road resurfacing – short sections	4.23%	150
Renewal of Road Markings	1.41%	50
Sub-total	49.72%	1765
Sub Total Brent Capital		3550
TfL Funding for Principal Roads**		901
TOTAL HIGHWAY MAINTENANCE PROGRAMME		4451

<sup>\*</sup>around 30% of value of £1.365m unclassified carriageway resurfacing programme \*\*value could increase if TfL agree to deliver reserve schemes.

- 6.2 The provisional allocation for 2016/17 assumes the same division of funding.
- 6.3 It is proposed to utilise up to £5k of carriageway maintenance allocation and £25k of footway allocation to undertake condition surveys during 2016/17. These surveys will assist preparation of a long term asset management programme.
- 6.4 The proposed approach to major road resurfacing and preventative maintenance assumes an approximate percentage split of funding of 70% and 30% respectively. Should there be any reduction or increase in the value of the Brent capital programme in future years, it is proposed to apply these approximate percentage splits to revised budgets.
- 6.5 Flood risk management expenditure is within the ENS revenue budget and as such is not reflected in the capital programme of works. The DEFRA flood grant was incorporated into the ENS revenue base a number of years ago and the grant taken centrally. As such all required expenditure will be contained within the revenue budget.
- 6.6 A bid for capital funding has been submitted to the London Bridge Engineering Group of the TfL in the sum of £345k for the 2016/17 which if successful would be additional to items included in the table at 6.1 above. Notification on the progress of the bid is due to be received in February 2016. The 2016/17 capital programme does not include any funding from this source. TfL allocates funds purely for

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- assessments, strengthening, etc. Funding for general and principal inspections needs to be sourced from elsewhere.
- 6.7 The HAMP approach to provide a systematic long term methodology for maintaining the borough's highways is continuing to be furthered during 2016/17. Future proposals and priorities to cover a medium term (up to 5 years) approach to budget allocations will be developed as part of this process. As such proposals for 2017/18 priorities will be submitted to a later meeting of the Cabinet for consideration.

#### 7.0 LEGAL IMPLICATIONS

7.1 The Highways Act 1980 places a duty on the council to maintain the public highway under section 41. Breach of this duty can render the council liable to pay compensation if anyone is injured as a result of failure to maintain it. There is also a general power under section 62 to improve highways.

#### 8.0 DIVERSITY IMPLICATIONS

- 8.1 The proposals in this report have been subject to screening there are considered to be no diversity implications that require full assessment. The works proposed under the highways main programme do not have different outcomes for people in terms of race, gender, age, sexuality or belief.
- 8.2 In addition, the design criteria used in all highway work does take note of the special requirements of various disabilities. These will take the form of levels and grades associated with wheelchair users, for example road crossing points, and for partially sighted / blind persons at crossing facilities. The highway standards employed are nationally recognised by such bodies as the Department for Transport. This programme of works continues the upgrade of disabled crossing facilities at junctions which were not constructed to modern day standards. All new junctions are designed to be compliant at the time of construction.
- 8.3 Strengthened areas of footway are far less susceptible to damage and will therefore aid the movement of pedestrians that may find it difficult to walk on uneven pavements.
- 8.4 We make sure accessibility ramps are provided to aid wheelchair users and those with prams. We make sure high visibility barriers and tapping rails are provided to allow those with visual impairments to negotiate the works as they are in progress
- 8.5 We make sure of the visibility of the required signage, also where temporary work is being carried out.
- 8.6 We monitor of the quality of the work to ensure that the finished surface is to specification and does not form a mobility hindrance; and that signage and road markings are correctly provided as aid to movement.

#### **BACKGROUND PAPERS**

#### None

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Chris Whyte Environment and Employment APPENDIX A

### **Unclassified Roads Resurfaced during 2015/16**

Unclassified Roads Resurfaced (£960k)	Length (m)	Ward
Colwyn Road	54	DOL
Dawpool Road (Heather Road to Brook Road)	231	DOL
Hardinge Road	490	BPK
Mapesbury Road (Willesden Lane to bridge)	373	BPK
Lydford Road	895	BPK
Garnet Road	165	HAR
Upton Gardens (Briar Road to Northwick Circle)	245	KEN
Donnington Road	438	KEN
Cranleigh Gardens	330	KEN
Victoria Road	700	KIL
James Avenue	103	MAP
Grosvenor Gardens	180	MAP
Shelley Gardens	210	NPK
Kingsway	385	PRE
Holmstall Avenue	420	QBY
Wimborne Drive	223	QBY
Girton Avenue	515	QBY
Capitol Way	763	QBY
Crouch Road	220	STN
Total km	6.94	
Miles	4.34	

### **Preventative Maintenance during 2015-16**

Preventative Maintenance (£400k)	Length (m)	Ward
Barn Rise	703	BAR
Belvedere Way	420	BAR
Kingsmere Park	307	BAR
Christchurch Avenue (Willesden Lane to Brondesbury Park)	215	BPK
Rosecroft Gardens	105	DOL
Bush Grove	493	FRY
Old Kenton Lane	540	FRY
Summit Close	140	FRY

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Longstone Avenue (Drayton Road to Harlesden Road)	378	KGN/WLG
Southwell Road	96	KEN
Mapesbury Road (Teignmouth Road to Shoot Up Hill)	196	MAP
Montpelier Rise	420	PRE
Total km	4.01	
Miles	2.51	

### **Short Sections Resurfaced during 2015/16**

Short Sections Carriageway Resurfaced (£150k)	Length (m)	Ward
Chamberlayne Road (junction with Kilburn Lane)	74	BPK/QPK
Chalkhill Road (Buddings Circle to Saxon Road)	118	BAR
Bembridge Close (Whole Close)	148	BPK
The Close (Alleyway)	30	BAR
Tanfield Avenue (66 to Randall Avenue)	238	DNL/DOL
Linthorpe Avenue (22 to 30)	42	SUD
Station Approach (outside 19)	12	SUD
Harlesden Road (197 to Donnington Road)	190	WLG
Rokesby Place (Whole Close)	105	SUD
Total km	0.96	
Miles	0.60	

### Additional Revenue Funded Short Sections Resurfaced during 2015/16

Carriageway Resurfacing (£150k Revenue)	Length (m)	Ward
Kilburn Lane (house no 202 to 340)	404	QPK
Watford Road	165	NPK
Marsh Road	102	ALP
Neeld Crescent	52	TOK
Craven Road	120	HAR
Total km	0.84	
Miles	0.53	_

### Non-Principal Classified B&C Roads Resurfaced during 2015/16

Carriageway Resurfacing (£150k)	Length (m)	Ward
Wrentham Avenue	366	QPK
Chamberlayne Road (junction with Hardinge Road)	45	BPK
Chamberlayne Road (junction with Station Terrace)	20	QPK
Brentfield Road (NCR to outside school)	441	STN
Total km	0.87	
Miles	0.55	

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Principal A Roads Resurfaced during 2015/16

Principal (A Road) Maintenance Programme (£1097k)	Length (m)	Ward
A404 Hillside NW10 (Wesley Road to Brentfield Road - also to include 754mts of footway upgrade)	350	STN
A4088 Forty Avenue (Corringham Road to Barn Rise)	240	BAR
A404 Craven park (Knatchbull Road to St Albans Road)	290	STN/HAR
A4005 Ealing Road (Glacier Way to Carlyon Road)	280	ALP
A4005 Bridgewater Road (Junction Manor Farm Road)	130	ALP
A5 Edgware Road (Chicele Road to Temple Road)	350	MAP
Total km	1.64	
Miles	1.03	

### Footway Resurfacing completed in 2015/16

Footways Resurfaced (£1525k)	Length (m)	Ward
Wembley Hill Road (Wembley Park Drive to East Lane)	610	PRE
Roe Green	840	FRY
Grasmere Avenue (College Road to Preston Road)	926	PRE
Cranleigh Gardens	600	KEN
Hardinge Road	966	BPK
Harrowdene Road (East Lane to Barley Close)	616	SUD
Riffel Road	724	DNL
Robson Avenue (West side only)	320	WLG
Hillside	754	STN
Total km	6.36	
Miles	3.97	

### Short Sections of Footway Resurfacing completed in 2015/16

Short Sections Footway Resurfaced (£150k)	Length (m)	Ward
Pembroke Road (odd side)	80	PRE
Norcombe Gardens (Opposite LC 7)	96	KEN
Heather Park Space Footway (off Beresford Avenue)	40	ALP
Shaftesbury Avenue (O/S School & Playground)	149	KEN
Thirmere Gardens (Grassmere Ave to College Road)	120	PRE
Woodford Place (Outside 13)	15	PRE
Corringham Road (Opp no 1 to the junction with Forty Avenue)	30	BAR
Total km	0.53	
Miles	0.33	

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### **APPENDIX B**

### **Highways Maintenance Programme 2016/17**

### <u>Unclassified Borough Roads - Major and Preventative Maintenance Programmes 2016-17</u>

Major resurfacing programme 2016-17	Length (m)	Estimated Cost (£k)	Ward
Limesdale Gardens	345	44	QBY
Park Chase	410	42	TOK
Vivian Avenue (Chalfont Avenue to Monks Park)	228	30	TOK
Verney Street	305	39	WHP
Elspeth Road	95	11	WEM
Barnhill Road (section near Waterside Close)	60	8	BAR
Canterbury Terrace	120	16	KIL
Wycombe Road	140	21	ALP
Bathurst Gardens (property no 2 to Wrottedley Road)	510	66	KGN
Buck Lane (Hay Lane to Highfield Avenue)	287	36	FRY
Winchelsea Road (Knatchbull Road to Farm Road)	206	41	STN
Brownlow Road	290	38	HAR
Melrose Avenue	899	119	DNL
Eton Avenue (Charterhouse Avenue to Repton Avenue)	230	18	SUD
Oakdale Avenue	160	17	KEN
Maybank Avenue (Greenbank Avenue to Harrow Road)	365	46	SUD
Langler Road	225	29	QPK
Sudbury Hill Close	255	26	NPK
Warfield Road	90	12	QPK
Burrows Road	312	36	QPK
Fairlight Avenue (Minet Avenue to Acton Lane)	95	16	HAR
Geary Road (Cullingworth Road to Park Avenue North)	271	35	DNL
Mostyn Avenue	263	34	TOK
Ballards Road	306	39	DOL
Mordaunt Road	245	33	STN
Mostyn Gardens	132	17	QPK
Perrin Road	135	19	NPK
Buckingham Road	292	37	KGN
West Way	321	35	WHP
Total km	7.59	960	
Miles	4.75		

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Preventative Maintenance Programme 2016-17	Length (m)	Estimated Cost (£k)	Ward
Wakemans Hill Avenue	603	76	FRY
The Croft	260	21	SUD
Village Way	420	33	WHP
Napier Road	227	20	WEM
Chaplin Road (Belton Road [north] to Villiers Road)	171	19	WLG
Grendon Gardens	375	22	BAR
Lewgars Avenue	250	24	FRY
North Way	362	38	QBY
Aboyne Road (Neasden Lane to Annesley Close)	85	11	WHP
Bryan Avenue (Donnington Road to Rowdon Avenue)	290	35	BPK
Copland Avenue	200	31	SUD
Copland Close	49	6	SUD
Lancaster Road	245	30	DNL
Windermere Avenue (Ennerdale Gardens to Coniston Gardens)	298	34	PRE
Total km	3.84	400	
Miles	2.40		

### Non-Principal B & C Roads - Major maintenance programme 2016/17

Carriageway Resurfacing B & C Roads	Length (m)	Estimated Cost (£k)	Ward
Stag Lane (Roe Green to Princes Avenue)	514	91	QBY/FRY
Neasden Lane (Denzil Road to Wharton Close)	523	109	WHP/DNL
Total km	1.04	200	
Miles	0.65		

### Major resurfacing of short sections 2016/17

Short Sections of Carriageway Resurfacing	Length (m)	Estimated Cost (£k)	Ward
Sites to be prioritised during financial year	TBD	150	-

### Renewal of Road Markings 2016-17

Renewal of Road Markings	Length (m)	Estimated Cost (£k)	Ward
Sites to be prioritised during financial year	TBD	50	-

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### Principal (A Road) Maintenance Programme 2016/17 - funded by TfL

Principal (A Road) Maintenance Programme	Length (m)	Estimated Cost (£k)	Ward
A404 Manor Park Road (Craven Park Road to Crownhill Road - also to include 400mts of footway upgrade)	200	377	HAR
A4005 Ealing Road (Carlyon Road to Alperton Lane)	255	224	ALP
A404 High Street Harlesden (Furness Road to 139)	360	200	KGN
A4003 Willesden Lane ( Walm Lane to Sidmouth Road)	230	100	WLG
Total km	1.05	901	
Miles	0.65		

Note: programme identified through the results of a London-wide SCANNER survey and to be funded by TfL. All schemes are subject to co-ordination with internal and external agencies.

### Footway Improvements to be funded by Brent Capital Budget in 2016/17

Footway Resurfacing	Length (m)	Estimated Cost (£k)	Ward
Regal Way (Westward Way to Shaftesbury Avenue)	958	267	KEN
Chandos Road	460	129	DNL
Townsend Lane (Kingsbury Road to Kingsmead Avenue)	1572	243	FRY
Elthorne Road	610	173	WHP/FRY
Mallard Way	744	221	WHP
Chalfont Avenue (Oakington Manon Drive to Brent Way)	162	86	TOK
Geary Road (Cullingworth Road to Park Avenue North)	542	147	DNL
Mostyn Avenue	652	169	TOK
Maintenance to Vehicle Crossings		50	
Total km	5.70	1485	
Miles	3.56		

All schemes subject to co-ordination with internal and external agencies.

### Other footway improvements 2016/17

Footway Short-section Improvements	Length (m)	Estimated Cost (£k)	Ward
Sites to be prioritised in-year	TBD	150	-

### Public Realm improvements 2016/17

Public Realm Improvements	Length (m)	Estimated Cost (£k)	Ward
Sites to be prioritised in-year	TBD	125	-

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### **APPENDIX C**

### **WARD ABBREVIATIONS**

WARD	ABBREVIATION
- ALPERTON	ALP
- BARNHILL	BAR
- BRONDESBURY PARK	ВРК
- DOLLIS HILL	DOL
- DUDDEN HILL	DNL
- FRYENT	FRY
- HARLESDEN	HAR
- KENSAL GREEN	KGN
- KENTON	KEN
- KILBURN	KIL
- MAPESBURY	MAP
- NORTHWICK PARK	NPK
- PRESTON	PRE
- QUEENS PARK	QPK
- QUEENSBURY	QBY
- STONEBRIDGE	STN
- SUDBURY	SUD
- TOKYNGTON	ток
- WEMBLEY CENTRAL	WEM
- WELSH HARP	WHP
WILLESDEN GREEN	WLG

#### **APPENDIX D**

## MAP OF PROPOSED CARRIAGEWAY AND FOOTWAY RESURFACING PROGRAMME 2016-17

SEE ATTACHMENT

#### **APPENDIX E**

MAP OF PRINCIPAL AND OTHER CLASSIFIED ROAD NETWORK IN BRENT

**SEE ATTACHMENT**