

## HIGHWAYS NETWORK PRIORITISATION AND MAINTENANCE

<b>Committee name</b>	Property, Highways and Transport Select Committee
<b>Officer reporting</b>	Poonam Pathak, Place Directorate
<b>Papers with report</b>	Appendix A - Highways Structural Works Approved by the Cabinet Member for Public Safety and Transport for 2021/22 Appendix B – Highways Structural Works Approved by the Cabinet Member for Property, Highways and Transport for 2022/23
<b>Ward</b>	All

### HEADLINES

An information report for the Property, Highways and Transport Select Committee on highways condition surveys, maintenance prioritisation and the Highways Structural Programme.

### RECOMMENDATIONS

**That the Property, Highways and Transport Select Committee note the contents of the report and provide any comments to officers as appropriate on the forward programme.**

### SUPPORTING INFORMATION

#### Background

The highway infrastructure asset is the most visible, well-used and valuable physical asset owned by the Council. Understanding the condition of highway assets is essential in planning for future decision making and investment requirement to maintain or improve their condition. Assets deteriorate at different rates and decisions have to be made about strategies for maintaining them during their life.

We have an aging network and deterioration of the highway network is caused due to various reasons e.g. increased rainfall that we are experiencing recently, extreme winter weather as well as increase load condition on the aging network have detrimental impact the network serviceability. The need for reactive repairs increases as assets deteriorate. Therefore, a balance has to be found between capital investment (through timely interventions to arrest deterioration) and revenue maintenance (through costly reactive revenue repairs).

Condition surveys of 100% of our highway network are undertaken every two years by independent consultants, most recently in 2021 using the United Kingdom Asset Management System (UKPMS). This is the national standard for management system for assessment of local road network condition which is utilised for the planning of investment and maintenance of highway assets. The purpose of condition assessments is to address the key objective of network

sustainability and to ensure that value for money is achieved when undertaking structural repairs. The selection and timing of structural maintenance treatments will always involve engineering judgement.

### **Investment & Prioritisation**

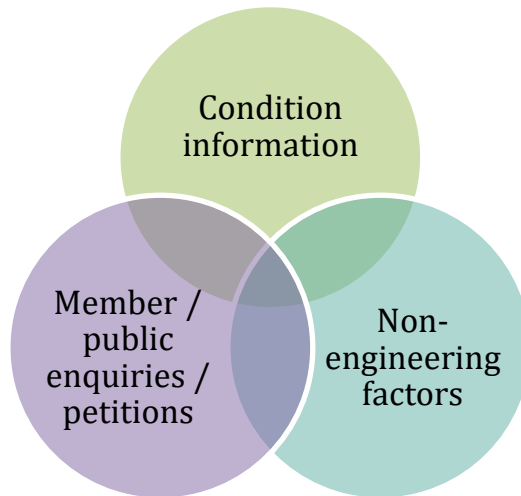
The long-term forward programme of capital highway maintenance schemes is identified and prioritised through the lifecycle planning process. A preventative approach is at the heart of the prioritisation process.

The indicative list of works is developed using collected condition information and non-engineering factors (road safety records, road usage levels, bus routes, proximity to schools & colleges, accident claim data, footfall and enquires). A preventive maintenance forward programme is only prepared for the residential roads. These are the roads where in most cases we wish to provide a surface overlay or shallow plane and resurface to seal the surface and so extend the life of the assets.

A long-term indicative list of carriageway and footway network maintenance works has been developed and is reviewed annually. Due to the different levels of deterioration of the network, it is possible that the roads on the list will be changed annually, i.e., removed, or replaced. This will assist with budget forecasting and coordination with utility companies, as well as other Council projects and major developments.

## Prioritisation Methodology

*Work programme inputs:*



**Prioritisation Score** – network condition + officers report + accident claim report + network hierarchy + member/resident complaints + reactive maintenance report

The network prioritisation score is determined using the condition score from the section level condition data as well as the other factors listed above with the agreed weighting. The order of schemes is then determined by the prioritisation carriageway or footway index (highest to lowest). The repair cost is calculated using the available area data. Following the calculation of the section level network carriageway or footway index, continuous poor sections of the entire road are checked (minimum section length of 100m) for schemes to be included in the forward programme. Sections of roads were also merged together if the gap between schemes was less than 40m. The schemes list is divided into five-year forward plans based on total cost. The same road sections from different years are brought together in one year to complete the road in one year rather than carrying our sections from different years.

The prepared forward programme is then checked on-site to finalise the yearly programme. Following a site visit, the officers may remove some schemes from the list or add new roads depending on the site conditions and validation of the network usage. There is a possibility that the proposed yearly programme may differ from the initial 5-year programme due to network deterioration and other factors that cause of network damage.

## Innovation

Hillingdon is currently trialling the following products and will explore further opportunities to utilise innovative materials to promote sustainability.

- Warm mix asphalt (WMA) - An innovative approach to road construction and maintenance offering enhanced efficiencies and lower carbon production. The principle behind WMA is

to manufacture and lay asphalt at lower temperatures, thereby using less energy and delivering meaningful carbon savings, without compromising performance.

- Recycled sub-base material – ‘Aggrebind’ is a cementitious binder which enables the re-use of almost 96% of excavated spoil, diverting waste from landfill and eliminating the import of quarried aggregate
- Geotextile mesh reinforcement – Asphalt geotextile reinforcement aims to reduce cracking in asphalt surfacing placed over cracked substrates, or joints in underlying concrete slabs, or cracks in cement-bound base layers. They can reduce surface rutting, differential settlement and extend operational life.

## **RESIDENT BENEFIT**

The highways forward programme in order to improve the condition of highway infrastructure will benefit residents by providing highway assets which are in good condition, fit for purpose, energy efficient, provide accessible services to our customers, represent value for money through long term planning, and enhanced allocation of resources.

## **FINANCIAL IMPLICATIONS**

There are no direct financial implications associated with this report. The proposed work programme is consistent with the current allocated funding for Highways planned works.

## **LEGAL IMPLICATIONS**

None

## **BACKGROUND PAPERS**

None

## **APPENDICES**

Appendix A - Highways Structural Works Approved by the Cabinet Member for Public Safety and Transport for 2021/22

Appendix B - Highways Structural Works Approved by the Cabinet Member for Property, Highways and Transport For 2022/23

## APPENDIX A - HIGHWAYS STRUCTURAL WORKS APPROVED BY THE CABINET MEMBER FOR PUBLIC SAFETY AND TRANSPORT FOR 2021/22

### Highways Structural Works Programme 2021/22 (Release No 1)

Please note, the wards shown in this appendix predate the ward boundary changes introduced following the local elections in May 2022.

Location	Ward	Project/ Expenditure Title	Information	Funds Released £'s
Arden Mhor	Northwood Hills	Carriageway resurfacing	Whole road	25,507
Breakspear Road North	Harefield	Carriageway resurfacing	Gilbert Road to Northwood Road	150,854
Cavendish Close	Charville	Carriageway resurfacing	Whole road	11,145
Church Road	Brunel	Carriageway resurfacing	Peachy Lane to Pield Heath Road	104,177
Colham Green Road	Yiewsley	Carriageway resurfacing	Pield Heath Road to Violet Avenue	128,965
Corwell Lane	Botwell	Carriageway resurfacing	Whole road	96,669
Dawley Road	Pinkwell	Carriageway resurfacing	North Hyde Road to Station Road	233,156
Eastcote Road	Eastcote & East Ruislip	Carriageway resurfacing	St Martins Approach to Windmill Hill	271,363
Finians Close	Uxbridge North	Carriageway resurfacing	Whole road	10,610

Grove Way	Uxbridge North	Carriageway resurfacing	Whole road	11,245
Showers Way	Townfield	Carriageway resurfacing	Whole road	20,473
St Clements Close	Brunel	Carriageway resurfacing	Whole road	47,041
Wordsworth Way	Heathrow Villages	Carriageway resurfacing	Whole road	50,106
Wyevale Close	Northwood Hills	Carriageway resurfacing	Whole road	13,059
Ashwood Avenue	Yiewsley	Footway resurfacing	Whole road	96,052
Azalea Walk	Eastcote & East Ruislip	Footway resurfacing	Whole road	156,538
Bartram Close	Brunel	Footway resurfacing	Whole road	48,305
Bourne Circus	Pinkwell	Footway resurfacing	In front of shops	28,060
Bramble Close	Yiewsley	Footway resurfacing	Whole road	66,155
Bromley Crescent	South Ruislip	Footway resurfacing	Whole road	99,310
Brookdene Drive	Northwood Hills	Footway resurfacing	Whole road	80,532

Burnham Gardens	Pinkwell	Footway resurfacing	Whole road	72,416
Corwell Lane	Botwell	Footway resurfacing	Whole road	161,029
Curzon Place	Eastcote & East Ruislip	Footway resurfacing	Whole road	69,933
Festival Close	Hillingdon East	Footway resurfacing	Whole road	27,062
Greencroft Avenue	Cavendish	Footway resurfacing	Whole road	120,600
Larne Road	Eastcote & East Ruislip	Footway resurfacing	Whole road	52,380
Long Lane	Ickenham	Footway resurfacing	Hillingdon Station to Halford Road	126,496
North Drive	Eastcote & East Ruislip	Footway resurfacing	Whole road	79,838
Sweetcroft Lane	Uxbridge North	Footway resurfacing	North side only	72,418
The Uplands	Manor	Footway resurfacing	Whole road	94,108
Windsor Gardens	Pinkwell	Footway resurfacing	Whole road	47,817
Yeading Lane	Yeading	Footway resurfacing	Shopping Parade - Dunedin Way to Willow Tree Lane - Shop side only	125,819
<b>Sub-total</b>				<b>2,799,238</b>

All Locations		Carriageway & Footway Resurfacing	Timely Release Discount	(104,971)
All Locations		Carriageway & Footway Resurfacing	Contractual Volume Discount	(118,968)
All Locations		Carriageway & Footway Resurfacing	Engineers Fees	166,137
All Locations		Carriageway & Footway Resurfacing	Contingencies	258,564
<b>Total</b>				<b>3,000,000</b>



**APPENDIX B - HIGHWAYS STRUCTURAL WORKS APPROVED BY THE CABINET MEMBER FOR PROPERTY, HIGHWAYS AND TRANSPORT FOR 2022/23**

**Highways Structural Works Programme 2022/23 (Release No 1)**

<b>Location</b>	<b>Ward</b>	<b>Project/ Expenditure Title</b>	<b>Information</b>	<b>Funds Released £'s</b>
Barra Hall Road	Wood End	Carriageway surfacing	Isolated concrete repairs	55,000
Breakspear Road North	Ruislip	Carriageway surfacing	From 240m south of Gilbert Road to Bourne Farm	381,350
Breakspear Road South	Ickenham & South Ruislip	Carriageway surfacing	From New Years Green Lane to Fine Bush Lane	208,495
Brickwall Lane	Ruislip	Carriageway surfacing	From High Street to Green Walk	88,453
Church Road	West Drayton	Carriageway surfacing	From Church Close to Station Road	76,123
Eastcote Road	Ruislip	Carriageway surfacing	From High Road to Windmill Hill Roundabout	418,153
Field End Road	South Ruislip	Carriageway surfacing	From Whitby Road to Victoria Road roundabout	520,269

Field End Road	South Ruislip	Carriageway surfacing	Service road from house no.583 to 645	141,282
Field End Road	Eastcote	Carriageway surfacing	Service road from house no. 385 to Argon Drive	17,657
Field End Road	Eastcote	Carriageway surfacing	Service road from Aragon Drive Boelyn Drive	24,520
Ickenham Road	Ruislip	Carriageway surfacing	From High Street to Kingsend roundabout	399,794
Lees Road	Colham & Cowley	Carriageway surfacing	From Harlington Road to Uxbridge Road	164,514
Springwell Lane	Harefield Village	Carriageway surfacing	From Springwell Cottage to Willow Court	125,571
Willow Tree Lane	Yeading	Carriageway surfacing	From Yeading Lane to The Parkway	313,222
Addison Close	Northwood Hills	Footway surfacing	From Addison Way house 56 to end	86,761
Addison Way	Wood End	Footway surfacing	From Central Avenue to end towards Coldhabour Lane	79,253

Addison Way	Wood End	Footway surfacing	From Central Avenue to end towards Church Road	62,428
Brickwall Lane	Ruislip	Footway surfacing	From High Street to Green Walk	159,229
Field End Road	Eastcote	Footway surfacing	From Woodlands Avenue to Sunngdale Avenue	49,443
Field End Road	Eastcote	Footway surfacing	From Sunningdale Avenue to Woodlands Avenue	122,479
Moat Drive	Ruislip	Footway surfacing	From St. Martin's Approach house no. 16 to end	39,364
Myrtle Avenue	Eastcote	Footway surfacing	From the Uplands to Lime Grove	151,616
Pield Heath Road	Colham & Cowley	Footway surfacing	From Moorcroft Lane to Holly Cottage Mews	55,748
Shepiston Lane	Pinkwell	Footway surfacing	From fire Station to Goals (north side only)	53,982
Station Road	Uxbridge	Footway surfacing	From High Street Cowley to Church Road	167,467

Wimpole Road	Yiewsley	Footway surfacing	From Bentinck Road to Tavistock Road	56,328
<b>Sub-total</b>				4,018,503
All Locations		Carriageway & Footway Resurfacing	Timely Release Discount	(150,694)
All Locations		Carriageway & Footway Resurfacing	Contractual Volume Discount	(170,786)
All Locations		Carriageway & Footway Resurfacing	Engineers Fees	302,211
All Locations		Carriageway & Footway Resurfacing	Contingencies	369,702
<b>Total</b>				<b>4,368,936</b>