

Decision Maker: Cabinet Member for City Management and Customer

Services

Date: 31 May 2016

Classification: **For General Release**

Title: Planned Preventative Maintenance (PPM) for 2016/17 in

respect of Public Lighting

Wards Affected: City wide

Policy Context: The planned programmes support the City for All, objective

> in delivering a well-managed, high quality streetscape whilst protecting and enhancing Westminster's unique

heritage.

Financial Summary: The overall expenditure in respect of the proposed Planned

Preventative Maintenance (PPM) work contained in this

report is estimated at £2,207,000.

Provision of £2,207,000 exists in the capital programme in

2016/17 to meet this net expenditure.

Stuart Love - Executive Director for City Management and Report of:

Communities

Report author: David Yeoell - Head of Infrastructure and Asset

Management

1. Executive Summary

- 1.1 This report seeks approval of the proposed 2016/17 annual programme of Planned Preventative Maintenance (PPM) in respect of Public Lighting.
- 1.2 Consultation on the Public Lighting programmes took place with Ward Councillors and the main Amenity Societies during the summer of 2015 and comments received have been considered in the programme development.
- 1.3 A glossary of terms used in this report can be found at Appendix C.

2. Recommendations

- 2.1 That the detailed proposals for the Public Lighting PPM programme for 2016/17 at an estimated cost of £2,207,000 as detailed at section 9 and in Appendix A, be approved.
- 2.2 That the capital expenditure of £2,207,000 for 2016/17 comprising the annual PPM programmes for the City Council's Lighting be approved.
- 2.3 That the Cabinet Member delegates to the Strategic Director for City Management the authority to make changes to the programmes subject to the proviso that the overall budget is not exceeded and that the Cabinet Member is consulted on any significant changes.

3. Reasons for Decision

- 3.1 The City Council is being placed under increasing pressure to justify the resources needed to manage the network and to demonstrate best use is being made of resources. This requires the Council to demonstrate in a transparent, defensible and auditable manner that planned work on the transport infrastructure will deliver the Council's goals and maintain a safe and effective network. The continual use of good asset management will ensure this challenge is met.
- 3.2 All assets deteriorate over time and any work aimed at maintaining the durability of the asset is classed as Programmed Maintenance. Such work prolongs the life of the asset and/or maintains structural capacity and is therefore considered as Capital Expenditure. Each year the City Council's regular inspection and testing programmes determine the current condition of the various highway assets (Carriageways, Footways, Lighting and Bridges & Structures) and identifies the forward investment needs that will keep the highway network in a safe and reliable condition.
- 3.3 This report presents the proposed Planned Preventative Maintenance programmes for 2016/17 for which financial approval is sought.
- 3.4 Provision has been made in the capital programme for this expenditure to enable these programmes of work to be implemented together with preparation of forward programmes of work for 2017/18.
- 3.5 The proposed Planned Preventative Maintenance programme set out in this report will ensure that the City Council's highway assets remain safe and effective and support the City for All, agenda.

4. Background

- 4.1 Public lighting is high profile and well-designed lighting provides many environmental and community benefits, including:
 - preventing night time personal injury accidents
 - reducing street crime and the fear of street crime; and
 - Contribution to economic development in the city by supporting the 24-hour leisure economy.
- 4.2 A sustained long term programme of investment in maintenance is crucial. This investment needs to be planned, efficiently managed and supported by effective technical and management systems.
- 4.3 Public lighting uses significant amounts of energy, the cost of which is increasing, and legislation has been introduced to reduce the UK's carbon footprint and thereby reduce its usage.
- 4.4 Technology in the lighting industry has been developing significantly in recent years enabling the maintenance management of the City Council's street lighting to be transformed.
- 4.5 The City Council's **Smart Light** Project had the overall aim to reduce the City Council's public lighting energy bill, lower their associated carbon footprint, optimise

maintenance and improve the level of service to customers. Energy efficient lanterns (the Philips Cosmopolis - CDO) were introduced together with electronic ballasts and a Central Management System (CMS). This project has already produced revenue savings of £420,000 per year as a combination of both energy and maintenance savings. Further work is underway to enable remote monitoring of the public lighting network which will ensure that faults are attended to immediately and negate the need for the weekly night scout referred to below.

5. The City Council's Inspection and Maintenance Regime

- 5.1 The City Council has adopted and applied Asset Management principles and techniques to ensure that public lighting is efficiently managed and that its residents and visitors can enjoy safe and well-lit streets.
- 5.2 An effective 'Inspection & Maintenance Management Regime' has been put in place that can be split under three general headings:
 - Inspection and Testing
 - Routine and Reactive (ad-hoc) Maintenance
 - Programmed Maintenance (Planned Preventative Maintenance)
- 5.3 The City Council's Inspection and Maintenance regime was determined using 'life cycle planning' as part of its overall Asset Management process.
- 5.4 The basic assumptions were the following:
 - an average lighting column has an operational life of 40+ years
 - the luminaire optical system (lantern, reflector, bowl and internal wiring) has an operational life of 20+ years, and
 - the control gear has an operational life of 10+ years.
- 5.5 This enabled an overall replacement/maintenance regime (funded from Capital) to be developed and as shown diagrammatically below:



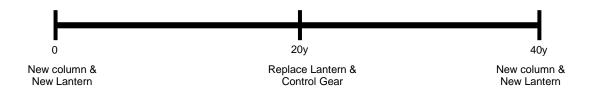
- 5.6 In addition to this the following activities were undertaken and funded from Revenue:
 - Weekly Night Scout
 - 2-yearly 'Bulk Lamp change & Clean'
 - 2-yearly inspection
 - 6-yearly Electrical Integrity Testing
 - Annual Rolling Painting Programme (6-year cycle)
 - Reactive Maintenance
- 5.7 Following the catastrophic failure of a lamp column in Cavendish Square on 5 January 1998 an annual rolling programme of structural testing was introduced

funded from the capital budget for 'Load Testing'. Any column found to be be structurally unsafe or at risk, following analytical assessment (load testing) and specialist investigation is replaced under the capital budget for 'Structurally Critical Columns'.

5.8 As part of the 2010 Fundamental Service Review (FSR), protective coating to street furniture (painting) was deleted from the revenue budget on the basis that this type of work should be funded from Capital. This was then included in the capital budget for 'Protective coatings', Cyclical Maintenance – painting of Lighting Columns on a 7-year rolling cycle.

Smart Lights

- 5.9 The overall aim of the Smart Lights Project was to reduce the City Council's public lighting energy bill, lower their associated carbon footprint, optimise maintenance and improve the level of service to customers.
- 5.10 Technology in the lighting industry had been developing significantly to meet these challenges enabling the maintenance management of the City Council's street lighting to be transformed.
- 5.11 The 4-year programme that was completed in 21013/14 delivered revenue savings of £420,000 per year as a combination of energy and maintenance savings.
- 5.12 The introduction of the new lamps, control gear and a Central Management System (CMS) enabled a new replacement/maintenance (funded from Capital) regime to be introduced, as shown diagrammatically below:



- 5.13 The CMS remotely monitors all street lights via a secure web site and enables automatic instructions to be issued electronically to the maintenance contractor when lights go out. This removes the need for a night scouting service which will happen on completion of work to integrate the CMS with the City Council's Highways Maintenance Management System 'Confirm'.
- 5.14 The introduction of the new technology also enabled the 'Bulk Light Change & clean' regime to be changed from a 2-year cycle to a 4-year cycle.
- 5.15 This reduced the Revenue funded activities to the following:
 - 4-yearly 'Bulk Lamp change & Clean'
 - 2-yearly inspection
 - 6-yearly Electrical Integrity Testing
 - 10-yearly 'ballast' change
 - Reactive Maintenance
- 5.16 These particular regimes (capital and revenue) were approved, together with a series of other 'Service Levels' for Highways & Transportation Services, at its

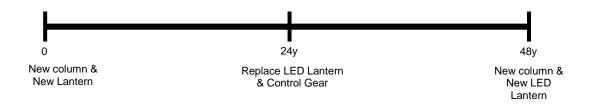
Cabinet Meeting on 15th April 2013. These regimes are included in the current Highways & Transportation Service contract for Public Lighting that commenced on 1st April 2014.

6.0 Further potential benefits of new technology

- Over the last 5 years there has been significant development in LED (Light Emitting Diode) technology for lighting the public realm. This brings the potential of further energy savings (and consequent reduction in carbon emissions) as well as improved reliability and increased operational life leading to reduced maintenance costs.
- 6.2 There has been a significant improvement in the quality of manufacture of both Lighting Column and Lanterns, over the last 5 to 10 years, which has led to an increase in usable 'life' of the products. The following table compares the previous assumed 'life cycles' with current accepted 'lifecycles':

Asset	Previous Life Cycles	Current accepted Life Cycles
Lighting Column	40 years	48 years
Lantern	20 years	24 years
Control gear	20 years	24 years
Lamps	4 years	12/24years (LED)
		(LED Driver change at 12 yrs)
Painting	7 years	7 years

6.3 The following diagram shows the revised replacement/maintenance regime based upon the current accepted life cycles:



- 6.4 The introduction of LED technology would enable advantage to be taken of the change to 'life cycles'. The Revenue funded activities could be changed to the following:
 - 6-yearly 'Clean' (to ensure quality light is emitted from the lanterns)
 - 12-yearly 'LED Driver' change
 - 2-yearly General Inspection (Visual)
 - 6-yearly 'Detailed Inspection' (TR22 Structural Assessment)
 - 6-yearly Electrical Integrity Testing
 - Reactive Maintenance
- 6.5 It is noted that although the vast majority of LED Lanterns today require an 'LED Driver', that needs replacing every 12 years, new lanterns are emerging that have 'direct drive' and therefore do not need a driver change every 12 years. However, this is new technology and has yet to be fully 'proven' on street.

- 6.6 It is anticipated that there is likely to be further significant improvements in LED lighting technology over the coming years. However, careful consideration needs to be given to its use and how it can be integrated into the City Council's Inspection & Maintenance regimes particularly where assets still have significant useful life remaining.
- 6.7 Trial installations of LED Lanterns have already been carried in include Downing Street, Cathedral Plaza, Craven Terrace, Bryanston Square and Ambrosden Avenue These have shown that energy savings in excess of 25% are achievable.
- 6.8 The trials have also shown that existing 'heritage' style' lanterns can be 'retro-fitted' thereby taking advantage of new energy saving technology whilst keeping the heritage lantern in place, where it has a significant useable life remaining. However, there are still some concerns that have not yet been fully resolved, including optical control, glare, limited ability for shielding and reflection within the bowls of heritage equipment.
- 6.9 The on street trials have highlighted the impact of colour temperature and it is proposed to use 'warm white' lanterns (in the range 2,700K to 3,000K) rather than 'cool white' (in the range 3,500K to 4,500K) as this provides similar lighting to other existing lighting on street in Westminster.
- 6.10 Headlines in the national media indicate a potential for 'significant' savings when LED Lighting is introduced. Suggestions have made that energy savings are circa 60%. However, this must be considered against a local authority's current lighting stock as where the 'starting point' is. If an authority has mainly the older low pressure sodium lamp (SOX) or high pressure sodium lamps (SON/T) then the move to LED will result in 'significant' energy savings of between 50% and 60%. However, like Westminster, if the starting point is the Phillips Cosmopolis (CDO) lamp with electronic ballast then the change to LED will produce less savings but still in the order of 25%.
- 6.11 LED Lighting has already been installed to the City Council's Bridges & Structures and energy savings in the order of 40% has been achieved.
- 6.12 It is noted that where Public Realm schemes include replacement and/or upgrading of public lighting these now include LED technology as a matter of course.
- 6.13 In addition, where 'whole street' Lighting Improvements are undertaken these will now include LED technology as a matter of course. Individual lantern replacements will be on a 'like for like' basis to ensure consistent quality and colour of light in the particular street.

Adaptive Lighting

- 6.14 The proposal for 'Adaptive Lighting' that allows lights to be 'Dimmed & Trimmed' during night time hours and result in additional energy savings of £125,000.
- 6.15 It is noted that a trial is to be undertaken in the Vincent Square Ward and if agreed will be rolled out across the city.

Smart Signs Initiative

6.16 'Smart Signs' apply the same principles as the Smart lights project to all illuminated signs and will result in a reduction of both energy and maintenance savings totalling £150,000 per year. This Initiative is in year 2 of a 4-year rollout programme.

7.0 Planned Preventative Maintenance (PPM)

Public Lighting

- 7.1 The City Council's annual programme of Planned Preventive Maintenance (PPM) comprises those activities determined from 'life cycle planning' shown in section 5 of this report. Such work prolongs the life of the asset and/or maintains structural capacity and is therefore considered as Capital Expenditure.
- 7.2 In addition, the PPM programme includes a programme of 'Lighting Improvements' that comprises 'whole street' improvements to meet the Westminster Lighting Standard requiring replacement of all columns and/or Lanterns, Appendix A (Table 1). A 'Value Management' prioritisation process is used based on an aggregated score of structural risk, lighting deficiency; and visual condition of the column, lantern and electric's. In addition, the process takes account of other 'Local' factors including, accident black-spots, low lighting levels, high crime area, prime site/important streets, area of significant pedestrian use and complaints.
- 7.3 A specific 'Lighting against Crime' programme is also included as part of the annual programme of lighting improvements. These specifically address crime related issues which is a particular public concern.
- 7.4 A key part of the annual PPM programme is 'Age Expired Equipment', Appendix A (Table 3). It is essential to replace equipment that has become 'age expired' or beyond economical repair. The current approach is to replace assets in line with asset life included within 'life cycle' planning. So, as an example: For an asset that has an 'asset life' of say 40 years this would assume a replacement programme of 2.5% of the stock each year. Similarly, for an 'asset life' of say 20 years this would assume a replacement programme of 5% of the stock each year.
- 7.5 The 'Lighting Improvement' and 'Age Expired Equipment' programmes are closely aligned to prioritise lighting improvements towards those streets where assets are at or reaching end of life.
- 7.6 A specific 'Cherished Column' replacement programme, Appendix A (Table C) is included to deal with 'age expired heritage columns' many of which are protected as 'listed' items of street furniture and therefore protected in law and are of significant historic value.

Regulatory Signs

- 7.7 The City Council is responsible for just over 5,000 'illuminated traffic signs'. They are a combination of internally or externally illuminated, being fixed to either a post or lighting column.
- 7.8 The financial provision within the annual PPM programme is basically an 'age expired equipment' programme for the City Council's illuminated signage. The life cycle for these assets has been assumed as 20 years therefore requiring 5% replacement each year.
- 7.9 Following a change to the national standards the majority of the City Council's illuminated signs do not comply with the requirements of the current British Standard. This requires defined high lighting levels within the high background ambient illumination areas of the City.

- 7.10 A rolling programme of signage replacement is therefore included within the annual PPM Programme to replace existing signage with LED illuminated signs and is closely linked with the City Council's 'Smart Signs' Project.
- 7.11 The following table provides the list of those individual programmes that comprise the City Council's annual programme of Planned Preventative Maintenance (PPM):

Lighting

- Lighting Improvements
- Light against Crime
- Age Expired Equipment
- Cherished Column Replacement
- Load Testing & Structurally Critical Columns
- Cyclical Maintenance Painting of Lighting Columns

Signage

- Regulatory Sign Replacement
- Signage Improvements

Capitalisation of Category 2 (non-emergency) Lighting Defects

7.12 Budget provision of £150,000 has been made within the 2016/17 PPM proposals for the capitalisation of Cat 2 repairs in respect of Public Lighting and Signage.

8.0 Introduction of new LED Technology City wide (LED Rollout)

- 8.1 Where Public Realm schemes include replacement of upgrading of public lighting these now include LED technology as a matter of course.
- 8.2 In addition, where 'whole street' Lighting Improvements are undertaken these will now include LED technology as a matter of course. Individual lantern replacements will be on a 'like for like' basis to ensure consistent quality and colour of light in the particular street.
- 8.3 There are a number of different options that could be adopted for a 'rollout' of LED technology across the city. Each option has a different impact on both initial capital investment and on-going revenue maintenance costs and thereby the payback period.
- 8.4 There are also wider considerations relating to the 'Smart City' agenda where there is significant potential to utilise the City Council's lighting columns and other street furniture to provide multiple information and communication technology solutions to manage the city's assets. The goal is to improve quality of life by using technology to improve the efficiency of services and meet residents' needs.
- 8.5 A detailed business case is being developed to enable decisions to me made on any LED Roll-out across Westminster and how the potential for utilising the City Council's lighting columns and other street furniture could be harnessed.
- 8.6 This report is therefore limited to the annual programme of Planned Preventive Maintenance (PPM) that comprises those activities determined from 'life cycle planning' that prolong the life of the asset and/or maintains structural capacity.

9.0 Proposed Planned Preventative Maintenance (PPM) for 2017/18

9.1 The following table sets out the proposed 2016/17 annual programme of Programmed Maintenance for Lighting together with the estimated costs against each budget heading of the overall programme:

Lighting	
Description	Estimated Cost
Lighting Improvements (incl. Value Management, Table 1)	£825,000
Localised Schemes Programme (incl. Lighting Against Crime, Table 2)	£75,000
Future Design & Technical Development	£75,000
Adaptive Lighting Roll-out (subject to outcome of trial)	£15,000
Aged Expired Equipment (Table 3)	£230,000
Cherished Column Replacement (Table 4)	£90,000
Load Testing	£65,000
Structurally Critical Columns	£190,000
Regulatory Sign Replacement and Signage Improvements	£70,000
Cyclical Maintenance – painting of Lighting Columns	£297,000
Capitalisation of CAT 2 repairs	£150,000
Client Costs (Inc. Compliance and Audit)	£125,000
Lighting Total	£2,207,000

9.2 The total cost for these programmes is estimated at £2,207,000 for which financial approval is sought.

10. Financial Implications

10.1 The total expenditure in 2016/17 required to implement the annual works programmes for Planned Preventative Maintenance (PPM) of the City Council's Public Lighting programme, as set out paragraphs 2.1 to 2.5 of this report is £2,207,000 for which financial approval is sought.

Revenue Implications

- 10.2 The revenue impact of funding the Capital Programme through borrowing will be met from the corporate budget provision for debt charges. However, the City Management and Communities department will be charged the depreciation cost for these assets, which are dependent on their useful life.
- 10.3 Budget provision of £150,000 has been made within the 2016/17 PPM proposals for the capitalisation of Cat 2 (non-emergency) repairs in respect of Lighting.

11. Legal Implications

- 11.1 The City Council, as local highway authority, has a duty under the Highways Act 1980 to ensure the effective maintenance and management of the Council's highway and highway assets (including lighting), and that they remain safe and effective
- 11.2 The programmes set out in this report help discharge the City Council's duty referred to in 11.1 above.

12. Staffing Implications

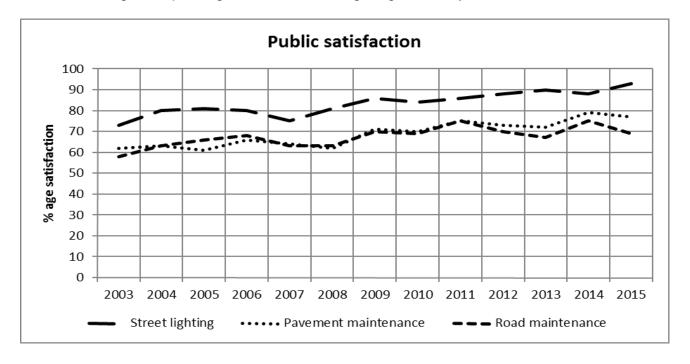
12.1 There are no staffing implications arising from this report.

13. Business Plan Implications

13.1 For Public Lighting maintenance operations there are 3 key performance measures as follows;

Measure	Targets	Performance
Average Number of Street Lights "Out of Action"	3%	1.8%
Average Time to Repair Defect within Council Control	12 Days	8.2 Days
Average Time to Repair a UKPN Fault	40 Days	44 Days

13.2 The customer satisfaction figures for the highways services are shown below indicating an improving trend for Street Lighting, currently 93%.



14. Outstanding Issues

141 Changes to the proposed programmes of work may be needed during the year, due to major statutory undertakers' work or building operations. A recommendation has been included seeking approval to delegate to the Strategic Director for City Management authority to make changes to the programmes subject to the proviso that the overall budget is not exceeded and that the Cabinet Member is consulted on any changes.

15. Consultation

- 15.1 The 2016/17 forward programmes have been developed following consultations with Ward Members and Local Amenity Societies.
- 15.2 The results of the consultation were reviewed and, where justified, included in the list of scheme proposals contained in this report. Details of the comments received from the consultation exercise are included in Appendix B.
- 15.3 In respect of the individual schemes Public Notices will be used to advertise the proposed works in a given location and would give the outline details of works. In addition a letter drop to affected households will be made outlining details of the scheme with a plan and contact details of appropriate contractor/client officers.

16. Crime and Disorder Act 1998

16.1 It is recognised that good street lighting has a deterrent effect on street crime and burglaries etc. All street lighting improvement schemes within the capital programme, take into account the need for better lighting. The Lighting against Crime programme is specifically targeted at crime hot-spots identified using information relating to crime and developed in liaison with the police. The change to the use of white light sources is having beneficial effects on the quality of the night-time CCTV and for individuals to be able to recognise friend or foe more easily.

17. Health and Safety Issues

17.1 All works undertaken will be closely monitored and carried out to the requirements of the Health & Safety at Work etc Act 1974 and the Construction (Design and Management) Regulations 2015.

18. Impact on Health and Wellbeing

- 18.1 Health concerns regarding the application of LED technologies have been raised in the national press. These essentially are based upon the perceived impact of the high blue light content of LEDs with high colour temperatures i.e. >5,000K. This issue has been addressed nationally through Public Health England (PHE) through their report, dated November 2015, which advised that such concerns have no basis.
- 18.2 The on street trials have highlighted the impact of colour temperature and it is proposed to use 'warm white' lanterns (in the range 2,700K to 3,000K) rather than 'cool white' (in the range 3,500K to 4,500K) as this provides similar lighting to other existing lighting on street in Westminster.
- 18.2 The proposals identified in this report are considered to have a minimal impact on the health and wellbeing of the community. Whilst some low level negative impacts may be experienced during the construction phase (associated with dust and noise nuisance), overall the works are expected to produce benefits for the community associated with the highway improvements.

19. Human Rights Act 1998

19.1 The measures in this report are not expected to have any implications under the Human Rights Act 1998.

IF YOU HAVE ANY QUERIES ABOUT THIS REPORT OR WISH TO INSPECT ANY OF THE BACKGROUND PAPERS, PLEASE CONTACT David Yeoell on 020 7641 2622 – email address dyeoell@westminster.gov.uk

Background Papers

- 1. Report to Cabinet Member for City Management, Transport and Environment, 24 April 2014 entitled Proposed Programmed Maintenance for 2014/15, in respect of Highways, Lighting and Bridges and Structures.
- 2. Report to Cabinet Member for City Management,

For completion by Cabinet Member for City Management

Declaration of Interest

•	I have no interest to declare in respect of this report
	Signed Date Councillor Melvyn Caplan, Cabinet Member for City Management and Customer Services
•	I have to declare an interest
	State nature of interest:
	Signed Date Councillor Melvyn Caplan, Cabinet Member for City Management and Customer Services
	(N.B.: If you have an interest you should seek advice as to whether it is appropriate to make a decision in relation to this matter.)
Fo	or the reasons set out above, I agree the recommendation(s) in the report entitled:
	roposed Planned Preventative Maintenance (PPM) for 2016/17 in respect of Public ghting"
Si	gnedDateDate Councillor Melvyn Caplan, Cabinet Member for City Management and Customer Services
de	you have any additional comment which you would want actioned in connection with your ecision you should discuss this with the report author and then set out your comment slow before the report and this pro-forma is returned to the Secretariat for processing.
	Iditional comment:

NOTE: If you do <u>not</u> wish to approve the recommendations, or wish to make an alternative decision, it is important that you consult the report author, Director of Law, the Chief Operating Officer and, if there are staffing implications, the Director of Human Resources (or their representatives) so that (1) you can be made aware of any further relevant considerations that you should take into account before making the decision and (2) your reasons for the decision can be properly identified and recorded, as required by law.

NOTE TO CABINET MEMBER: Your decision will now be published and copied to the Members of the relevant Policy & Scrutiny Committee. If the decision falls within the criteria for call-in, it will not be implemented until five working days have elapsed from publication to allow the Policy and Scrutiny Committee to decide whether it wishes to call the matter in.

Appendices

- 1. Appendix A
 - a. Proposed Lighting Improvement Programme 2016/17 (Table 1)
 - b. Localised Schemes Programme (incl. Lighting Against Crime) (Table 2)
 - c. Age Expired Lantern Replacement Programme 2016/17 (Table 3)
 - d. Cherished Column Programme 2016/17 (Table 4)
- 2. Appendix B Public Lighting Consultation Exercise

Proposed Lighting Improvement Programme 2016/17 (Table 1)

Appendix A

Road	Ward	Existing Assets	Proposed Improvements	Estimated Cost
WESTWAY (Phase 2)	Little Venice	15+	Refurbish / Replace Lighting under Westway	£94,468
HORSEFERRY ROAD (Phase 1)	Vincent Square	28	20 x new 8m LGW columns with LED LGW luminaires	£151,179
BROWN STREET	Bryanston & Dorset Square	9	7 x new 5m SGW columns with LED SGW luminaires and 1 x new luminaire upgrade onto existing column 09 to be retained	£50,964
CHADWICK STREET	St James's	7	4 x new 5m SGW columns with LED SGW luminaires and 3 x new luminaire upgrades onto existing columns 02, 03 & 06 to be retained	£35,034
THIRLEBY ROAD	Vincent Square	12	11 x new 5m SGW columns with LED SGW luminaires	£67,910
CURETON STREET	Vincent Square	6	6 x new 5m SGW columns with LED SGW luminaires	£32,488
RUTHERFORD STREET	St James's	5	4 x new 5m SGW columns with LED SGW luminaires and 1 x new luminaire upgrade onto existing column 01 to be retained	£30,659
MANCHESTER SQUARE	Marylebone High Street	11	10 x new 8m LGW columns with LED LGW luminaires and 2 x existing columns 06 & 11 to be relocated and re-headed with new LED LGW luminiares	£92,013
HERRICK STREET	Vincent Square	13	12 x new 6m SGW columns with LED SGW luminaires	£75,794
CAUSTON STREET	Vincent Square	12	5 x new 6m SGW columns with LED SGW luminaires and 1 x luminiare upgrade onto existing column 02 to be retained. 3 x existing columns 03, 05 & 06 to be relocated and re-headed with new LED SGW luminiares	£59,276.26
CATHERINE PLACE	St James's	8	9 x new 5m SGW columns with LED SGW luminaires	£48,041.32
DORSET SQUARE	Bryanston Square & Dorset Square	5	5 x new 5m SGW columns with LED SGW luminaires	£33,747.22
CRAWFORD PLACE	Bryanston Square & Dorset Square	6	6 x new 8m LGW columns with LED LGW luminaires	£50,023.52
	Total			£821,599

Localised Schemes Programme (incl. Lighting Against Crime) (Table 2)

STREET	WARD	NUMBER	LANTERN REPLACEMENT
RAPHAEL STREET	Knightsbridge & Belgravia	2	1 SGW column and 1 addition SWG Lantern
CRAVEN HILL MEWS	Lancaster Gate	1	1 additional Heritage Lantern north east corner (opposite No 3) by archway
LANCASTER MEWS	Lancaster Gate	1	1 SGW column by junction with Craven Terrace

Age Expired Lantern Replacement Programme 2016/17 (Table 3)

Appendix A

STREET	WARD	NUMBER	LANTERN REPLACEMENT
CAPLAND STREET	Church Street	21	Functional
FITZMAURICE PLACE	West End	2	Large Grey Wornum
CHAPEL STREET	Bryanston & Dorset Square	10	Large Grey Wornum
CLARENDON GARDENS	Little Venice	6	Functional
CLARENDON TERRACE	Little Venice	2	Functional
CLIPSTONE STREET	Marylebone High Street	17	Small Grey Wornum
HOBART PLACE	Knightsbridge & Belgravia	11	Large Grey Wornum
MARBAN ROAD	Queen's Park	5	Functional
HAY HILL	West End	3	Large Grey Wornum
HAYES PLACE	Bryanston & Dorset Square	3	Functional
MADDOX STREET	West End	12	Large Grey Wornum
MAIDA VALE	Maida Vale	29	Functional
MAIDA AVENUE	Little Venice	18	Functional
LORDS VIEW	Regent's Park	5	Functional
KILBURN PARK ROAD	Maida Vale	36	Functional
NOEL STREET	West End	7	Large Grey Wornum
MARLBOROUGH PLACE	Abbey Road	28	Functional
ALLITSEN ROAD	Regent's Park	16	Functional
MOSCOW ROAD	Lancaster Gate	22	Functional

Cherished Column Programme 2016/17 (Table 4)

STREET	WARD	NUMBER	PROPOSED IMPROVEMENT
FAIRHOLT STREET	Grosvenor	2	Cherished Column Upgrade
RUTLAND STREET	Grosvenor	6	Cherished Column Upgrade
CHARING CROSS ROAD	St James's	1	Cherished Column Upgrade

Public Lighting Consultation Exercise

Appendix B

Ward Councillor/Amenity Society	Street name	Precise Location and details	Issue	Executive Directors for City Management and Communities response
Cllr Robert Rigby	Allitsen Road	between Charlbert Street and Townsend Road, Southern side of this road	Look at public lighting on this part of Allitsen Road	Included in Age Expired Programme 2016/17
Elizabeth Virgo and Paul Newman (Paddington Waterways)	Westminster wide	n/a	We would like to make a general point about lighting. The tree canopy often diminishes the amount of light coming from a more-than-adequate- lightpost in the winter months. Perhaps some more joined up thinking between the Tree Department and Highways would remedy this on a planned remedial basis.(Please note we use the services of our (very good) Warden to get residents to take action when this happens with a tree in their gardens.)	Reviewed and Westminster "Public Lighting Guide for New & Replacement Trees" has been developed
Simon Birkett - Tony Devenish Cllr - Marc	Raphael Street	In front of Tattersall's Pub	Request for a close look at lighting. lighting to be very dingy. earlier this year, a resident of a local building was mugged in that spot. Investigate the possibility of improving the lighting underneath the section of the building that forms a "bridge" over Raphael Street and Tattersall's Pub.	Included in the Localised Scheme Programme
Winer	Fairholt Street/Rutland Street	On the South Western corner of the intersection between Fairholt Street and Rutland Street	There is poor lighting in that part of Rutland Street.	Included in the Cherished Column Replacement Programme
	Craven Hill Mews	North east corner (opposite No 3) by archway (is on 2015/16 programme for investigation)	Additional heritage column or wall light needed	Included in the Localised Scheme Programme
	Craven Road	Craven Terrace to Gloucester Terrace (shopping section)	Upgrade existing four tall lamp columns with Grey Wornum Heritage style fittings (to match small Grey Wornum's in Craven Terrace) is on 2015/16 programme for investigation	Currently not a priority as this would only be a visual enhancement
Cllr Andrew Smith	Lancaster mews	By junction with Craven Terrace	Additional Windsor Heritage style wall light required	Included in the Localised Scheme Programme
	Westbourne Terrace Mews		Wall lights (3) to be upgraded to Windsor Heritage style fittings as lighting was maintained by WCC for years. (is on 2015/16 programme for investigation)	This is not Public Highway private street with no maintenance agreement.
Cllr Melvyn Caplan	Maida Avenue		Look into improving the lighting as there are dark corners that worry female residents even though the actual number of lights is similar to other comparable areas (eg Blomfield Road)	Included in Age Expired Programme 2016/17

	Brook Street (W2)	In the Hyde Park Estate	Would be good to have large Grey Wornums, to match adjoining streets	Currently not a priority as this would only be a visual enhancement
	Chepstow Road		Do lanterns need upgrading as not changed for many years?	Currently not a priority but are likely to be dealt with within an LED rollout strategy in the future.
	Chilworth Street	Opposite Gloucester Mews. shopping. stretch between Cleveland Square and Gloucester Terrace.	Additional lamp column needed, Heritage style lamp columns or heritage fittings needed.	Currently not a priority as this would only be a visual enhancement
Mr John Zamit	Craven Hill Mews	north east corner (opposite No 3) by archway	Additional heritage column or wall light needed. (is on 2015/16 programme for investigation).	Included in the Localised Scheme Programme
	Craven Road	Craven Terrace to Gloucester Terrace (shopping section)	Upgrade existing four tall lamp columns with Grey Wornum Heritage style fittings (to match small Grey Wornum's in Craven Terrace) - (is on 2015/16 programme for investigation).	Currently not a priority as this would only be a visual enhancement
	Lancaster Mews	By junction with Craven Terrace	Additional Windsor Heritage style wall light required. (is on 2015/16 programme for investigation).	Included in the Localised Scheme Programme
	Moscow Road		Do lanterns need upgrading as not changed for many years?	Included in Age Expired Programme 2016/17
	Porchester Road		Do lanterns need upgrading as not changed for many years? Can we please consider having large Grey Wornums.	Currently not a priority as this would only be a visual enhancement

Stanhope Terrace		Would be good to have large Grey Wornums, to match lighting in adjoining streets in the Hyde Park Estate.	Currently not a priority as this would only be a visual enhancement
Titchborne Row		Are new lanterns required?	Currently not a priority but are likely to be dealt with within an LED rollout strategy in the future
Strathearn Place	South side.	Small Grey Wornum Heritage style lamp column on north side to go on south side to match those in adjacent stretch in Hyde Park Square and relocation of ones on south side of street to go in better positions (is on 2015/16 programme for consideration).	Currently not a priority as this would only be a visual enhancement
Westbourne Park Villas		Do lanterns need upgrading as not changed for many years?	Currently not a priority but are likely to be dealt with within an LED rollout strategy in the future
Westbourne Terrace Mews		Wall lights (3) to be upgraded to Windsor Heritage style fittings as lighting was maintained by WCC for years. (is on 2015/16 programme for investigation).	This is not Public Highway private street with no maintenance agreement.
Winsland Street	Northern stretch	Still outstanding from 2014/15 programme is fitting of two Windsor wall lights (where it is very dark).	Outstanding scheme that is progressing way leave agreements
Beeston Place	SW1	lamps need new lantern in large grey worms style.	Currently not a priority as this would only be a visual enhancement
Smart Light programme		What work on this project nearing completion is outstanding in the W2 area? Anything outstanding should be completed ASAP.	The majority of the Cities lighting is connected to Smart Lights. However there are a number of Streets which have Wall Lanterns which solutions are now being programmed for resolution within LED Strategy.