

SERVICE STANDARD 4
Street Lighting and Signs

1. REQUIRED OUTCOMES

- 1.1 The Service Provider shall comply with the provisions of this Service Standard 4 so as to ensure that by the end of the CIP and throughout the remainder of the Term, in relation to the Project Network all Street Lighting;
- 1.1.1 complies with the Relevant Lighting Standards and the Specific Lighting Design Standards as set out in Annexure 1 of this Service Standard 4 unless it is an Agreed Non-Compliant Lighting Unit; and
- 1.1.2 is Structurally Sound
- 1.2 The Service Provider shall ensure that all Non-Compliant Lighting Units are Removed by the end of the CIP and Street Lighting which is Replacement CIP Certified Apparatus is installed in order to ensure that the requirements of this Service Standard 4 are met.
- 1.3 The Service Provider shall ensure that all Street Lighting that is an Agreed Non-Compliant Type 1 Lighting Unit or Agreed Non-Compliant Type 2 Lighting Unit is replaced as and when necessary to ensure each Agreed Non-Compliant Type 1 Lighting Unit or Agreed Non-Compliant Type 2 Lighting Unit is Structurally Sound, also ensuring that, at the time of replacement, each Agreed Non-Compliant Type 1 Lighting Unit complies with the Relevant Lighting Standards and the Specific Lighting Design Standards as set out in Annexure 1 of this Service Standard 4 and each Agreed Non-Compliant Type 2 Lighting Unit is replaced with Street Lighting which as a minimum replicates current lighting levels.

- 1.4 The Service Provider shall ensure that each Non-Standard Lighting Unit that is to be replaced is replaced with a Lighting Unit subject to Authority Approval as to the aesthetic style and materials to be used in such replacement.
- 1.5 The Service Provider shall ensure that all Illuminated Signs, Non Illuminated Signs and Street Name Plates are replaced as and when necessary to ensure each item is Structurally Sound and compliant with Highway Standards.
- 1.6 The Service Provider shall ensure that the electricity supply to Powered Apparatus is not from a grouped switch point (unless Authority Approval has been otherwise obtained for the use of a grouped switch point) and the electricity supply is available twenty-four (24) hours a day and has the capacity to operate the Powered Apparatus to its full operating parameters.

2. PERFORMANCE REQUIREMENTS

- 2.1 The Service Provider shall perform the Street Lighting Service in accordance with the Performance Requirements set out in Table 4.

TABLE 4

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.1	Street Lighting	The Service Provider shall ensure that at least the applicable number of Non-Compliant Lighting Units in each of Community Assembly Areas 1 to 7 (inclusive) as set out in Schedule 35 (Milestones) is Removed and the relevant Boundary Polygon made compliant with the Relevant Lighting Standards and the Specific Lighting Design Standards set out in Annexure 1 of this Service Standard 4.	N/A	N/A		N/A	Inspect
4.2	Street Lighting	The Service Provider shall ensure that each Lighting Unit (excluding Agreed Non-Compliant Lighting Units) and Boundary Polygon in which such Lighting Unit is situated is compliant with the Relevant Lighting Standards and the Specific Lighting Design Standards set out in Annexure 1 of this Service Standard 4.	3 months	3 months		5 Milestone Years	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.3	Street Lighting	The Service Provider shall ensure that where a Lighting Unit that is Agreed Non-Compliant Type 1 Lighting Unit is replaced, such Lighting Unit is replaced with a Lighting Unit that is compliant with the Relevant Lighting Standards and the Specific Lighting Design Standards set out in Annexure 1 of this Service Standard 4 (as the case may be).	3 months	3 months		N/A	Inspect
4.4	Street Lighting	The Service Provider shall ensure that where a Lighting Unit that is an Agreed Non-Compliant Type 2 Lighting Unit is replaced, such Lighting Unit is replaced on a Like For Like Basis (unless the Service Provider obtains Authority Approval for an alternative) with a Lighting Unit that is capable of achieving at least the lighting output level which was achievable by the replaced Lighting Unit at the date of the Contract.	3 months	3 months		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.5	Street Lighting	The Service Provider shall not remove an Agreed Non-Compliant Type 1 Lighting Unit or an Agreed Non-Compliant Type 2 Lighting Unit without Authority Approval unless its replacement is set out in the Annual Investment Programme or its Removal is required to make safe a Highway Emergency, an Urgent Defect or a Category 1 Defect.	N/A	3 months		N/A	Inspect
4.6	Street Lighting	The Service Provider shall not remove any Non-Standard Lighting Unit without Authority Approval unless its replacement is set out in the Annual Investment Programme or its Removal is required to make safe a Highway Emergency, an Urgent Defect or a Category 1 Defect.	N/A	3 months		N/A	Inspect
4.7	Street Lighting	The Service Provider shall ensure that each Non-Standard Lighting Unit that is to be replaced shall be replaced with a Lighting Unit subject to Authority Approval as to the aesthetic style and materials to be used in such replacement.	N/A	3 months		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.8	Street Lighting	The Service Provider shall ensure that, on a monthly basis, the minimum percentage of Lighting Units as set out in Annexure 2 to this Service Standard 4 in each Community Assembly Area is In Light.	N/A	N/A		3 months	Inspect
4.9 (a)	Street Lighting	Notwithstanding Performance Requirement 4.8, the Service Provider shall ensure that no more than two (2) consecutive Lighting Units on a Road Section Length or a Footway Section Length (where no Road Section Length exists) are not In Light (where the reason for such Lighting Units not being In Light is attributable to the DNO).	15 days	1 day		N/A	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.9 (b)	Street Lighting	Notwithstanding Performance Requirement 4.8 the Service Provider shall ensure that where a Lighting Unit has more than one Luminaire then the Service Provider shall ensure that not more than one Luminaire is not In Light (where the reason for such Lighting Units not being In Light is attributable to the DNO).	15 days	1 day		N/A	Service Inspect
4.10 (a)	Street Lighting	Notwithstanding Performance Requirement 4.8, the Service Provider shall ensure that no more than two (2) consecutive Lighting Units on a Road Section Length or a Footway Section Length (where no Road Section Length exists) are not In Light (for a reason other than that set out in Performance Requirement 4.9 (a)).	1 day	1 day		N/A	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.10 (b)	Street Lighting	Notwithstanding Performance Requirement 4.8 the Service Provider shall ensure that where a Lighting Unit has more than one Luminaire then the Service Provider shall ensure that not more than one Luminaire is not In Light (where attributable to a reason other than that set out in Performance Requirement 4.9 (b)).	5 days	1 day		N/A	Service Inspect
4.11	Street Lighting	Notwithstanding Performance Requirements 4.9 and 4.10, the Service Provider shall ensure that no more than one (1) Lighting Unit or ten per cent (10%) (whichever is the largest number) of Lighting Units on a Road Section Length or a Footway Section Length (where no Road Section Length exists) are not In Light.	5 days	1 day		5 days	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.12	Street Lighting	Notwithstanding Performance Requirements 4.9 – 4.11 inclusive, the Service Provider shall ensure that each Lighting Unit is In Light (where the reason for the Lighting Unit not being In Light is not attributable to the DNO).	See Annexure 2 to the Service Standard 4 of the Output Specification	1 day		N/A	Service Inspect
4.13	Street Lighting	Notwithstanding Performance Requirements 4.9 – 4.11 inclusive, the Service Provider shall ensure that each Lighting Unit is In Light (where the reason for the Lighting Unit not being In Light is attributable to the DNO).	See Annexure 2 to the Service Standard 4 of the Output Specification	1 day		N/A	Service Inspect
4.14	Street Lighting	Notwithstanding Performance Requirements 4.9 – 4.11 inclusive, the Service Provider shall ensure that the average length of time to repair a Lighting Unit not In Light does not exceed the length of time set out in Annexure 2 to the Service Standard 4 of the Output Specification in any month (where the reason for such Lighting Units not being In Light is not attributable to the DNO).	N/A	N/A		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.15	Street Lighting	Notwithstanding Performance Requirements 4.9 – 4.11 inclusive, the Service Provider shall ensure that the average length of time to repair a Lighting Unit not In Light does not exceed the length of time set out in Annexure 2 to the Service Standard 4 of the Output Specification in any month (where the reason for such Lighting Units not being In Light is attributable to the DNO).	N/A	N/A		N/A	Inspect
4.16	Street Lighting	The Service Provider shall ensure each Lighting Unit (other than High Mast Lighting) is Structurally Sound.	1 month	1 month		5 Milestone Years	Service Inspect
4.17	Street Lighting	The Service Provider shall ensure that each Lighting Unit (other than High Mast Lighting) is True and Plumb.	1 month	1 month		5 Milestone Years	Service Inspect
4.18	Street Lighting	The Service Provider shall ensure each Lighting Unit (other than High Mast Lighting) is Free From Corrosion.	1 month	1 month		5 Milestone Years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.19	Street Lighting	The Service Provider shall ensure each Lighting Unit has Power Variation Capability unless Authority Approval has otherwise been obtained.	N/A	1 month		5 Milestone Years	Inspect
4.20	Street Lighting	The Service Provider shall ensure each Lighting Unit is operating in accordance with the Power Variation requirements set out in the Mayrise Database and Annexure 1 to this Service Standard 4 unless Authority Approval has otherwise been obtained.	14 days	14 days		5 Milestone Years	Service Inspect
4.21	Street Lighting	The Service Provider shall ensure all Lighting Units on a street (or Boundary Polygon if more than 200 m long), excluding Agreed Non-Compliant Lighting Units, shall have a uniform appearance and be appropriate to and in keeping with the relevant location unless Authority Approval has otherwise been obtained.	3 months	3 months		5 Milestone Years	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.22 (a)	Street Lighting	The Service Provider shall ensure that the Meter Administrator has (at all times) functioning PECU(s) which accurately reflect the population of PECU(s) on items of Powered Apparatus.	10 days	5 days		3 months	Inspect
4.22 (b)	Street Lighting	Where the Authority requests the Service Provider to do so, the Service Provider shall appoint a Meter Administrator within thirty (30) days of the Authority's request.	N/A	5 days		N/A	Inspect
4.23	Street Lighting	The Service Provider shall ensure that each Lighting Column that is removed after the completion of the Core Investment Period is examined for corrosion, within five (5) Business Days of removal, in those areas of the Lighting Column which are not accessible when such Lighting Column is in position, in order to establish the predicted residual life of other Lighting Columns of a similar age and type.	N/A	N/A		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.24	Street Lighting	Further to Performance Requirement 4.23 where the Service Provider has determined that a Lighting Column had less than two (2) years residual life, the Service Provider shall notify the Authority of the same within ten (10) Business Days of the date such information is known and the Service Provider will use such information in order to determine which Lighting Columns shall be replaced in accordance with the requirements of this Contract.	N/A	14 days		N/A	Inspect
4.25	Street Lighting	The Service Provider shall ensure that each Lighting Unit is Free From Any Breakdown In The Paint Or Protective System.	1 year	1 month		5 Milestone Years	Service Inspect
4.26	Street Lighting	The Service Provider shall ensure that Anti-Climbing Measures on each Lighting Column (where applicable) shall be maintained in accordance with Good Industry Practice.	1 month	1 month		N/A	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.27	Street Lighting	The Service Provider shall ensure that each High Mast Lighting Unit is Structurally Sound (provided that where the High Mast Lighting Unit has been knocked down the Rectification Period shall be subject to Authority Approval).	1 month	1 month		N/A	Service Inspect
4.28	Street Lighting	The Service Provider shall ensure that each High Mast Lighting Unit is True and Plumb (provided that where the High Mast Lighting Unit has been knocked down the Rectification Period shall be subject to Authority Approval).	1 month	1 month		N/A	Service Inspect
4.29	Street Lighting	The Service Provider shall ensure that each High Mast Lighting Unit is Free From Corrosion.	1 month	1 month		N/A	Service Inspect
4.30	Street Lighting	The Service Provider shall ensure that no Lighting Unit is group switched and that there is a twenty four (24) hour electricity supply available to each Lighting Unit unless Authority Approval has been otherwise obtained.	1 month	1 month		5 Milestone Mears	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.31	Street Lighting	The Service Provider shall ensure that there is an independent Lighting Activation Level control to each Lighting Unit unless Authority Approval has been otherwise obtained.	1 month	1 month		5 Milestone Years	Inspect
4.32	Street Lighting	The Service Provider shall ensure that the electricity supply available to each Lighting Unit delivers the appropriate voltage and current to operate each Lighting Unit to its full operating parameters.	1 month	1 month		5 Milestone Years	Inspect
4.33	Street Lighting	The Service Provider shall ensure that in respect of any Lighting Unit that has a door or an access panel, such door or access panel is kept in a secure condition and is operational at all times.	1 hour	1 hour		N/A	Safety Inspect
4.34	Street Lighting	The Service Provider shall ensure that each Lighting Unit complies with all relevant Highway Standards where the timescales set out in this Performance Requirement are not otherwise superseded by the timescales set out in other Performance Requirements within this Service Standard 4.	1 month	1 month		5 Milestone Years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.35	Traffic Signs	The Service Provider shall ensure each Traffic Sign is Structurally Sound.	1 month	1 month		5 years	Service Inspect
4.36	Traffic Signs	The Service Provider shall ensure each Traffic Sign is True and Plumb.	1 month	1 month		5 years	Service Inspect
4.37	Traffic Signs	The Service Provider shall ensure that each Traffic Sign is Free From Corrosion.	1 month	1 month		5years	Service Inspect
4.38	Traffic Signs	The Service Provider shall ensure that each Illuminated Traffic Sign is In Light (where the reason for not being In Light is not attributable to the DNO).	3 days	1 day		5 years	Service Inspect
4.39	Traffic Signs	The Service Provider shall ensure that each Illuminated Traffic Sign is In Light (where the reason for not being In Light is attributable to the DNO).	20 Business Days	1 day		5 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.40 (a)	Traffic Signs	Until such time as the Lighting Activation Levels set out in the Mayrise Database or in Annexure 1 to this Service Standard 4 are achieved, all existing Illuminated Traffic Signs shall be fully illuminated to Highway Standards and operate in accordance with existing Lighting Activation levels as detailed in the Mayrise Database field entitled "Control" (where the failure to comply with this Performance Requirement is not attributable to the DNO).	3 days	1 day		N/A	Inspect
4.40 (b)	Traffic Signs	Until such time as the Lighting Activation Levels set out in the Mayrise Database or in Annexure 1 to this Service Standard 4 are achieved, all existing Illuminated Traffic Signs shall be fully illuminated to Highway Standards and operate in accordance with existing Lighting Activation levels as detailed in the Mayrise Database field entitled "Control" (where the failure to comply with this Performance Requirement is attributable to the DNO).	20 Business Days	1 day		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.41	Traffic Signs	The Service Provider shall ensure each Traffic Sign face is visible and is not obscured whether by Vegetation or other obscuring factors.	3 days	1 day		N/A	Service Inspect
4.42 (not used)							
4.43	Traffic Signs	The Service Provider shall ensure that the retroreflectivity of each Traffic Sign face is in accordance with relevant Highway Standards.	5 days	1 day		1 year	Service Inspect
4.44	Traffic Signs	The Service Provider shall ensure that each Traffic Sign has no degradation of sign face material, including by delaminating or shrinkage, or loss of legend through the peeling of cut or screened legends, which would render the Traffic Sign unenforceable.	5 days	1 day		2 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.45	Traffic Signs	The Service Provider shall ensure that the sign face materials used on a Traffic Sign face shall not degrade in terms of the colours below the minimum acceptable levels stated in accordance with the relevant Highway Standards.	5 days	1 day		2 years	Service Inspect
4.46	Traffic Signs	The Service Provider shall ensure that each Traffic Sign is Free From Detritus, Algae And Tree Sap.	1 month	1 month		6 months	Service Inspect
4.47	Traffic Signs	The Service Provider shall ensure that each Traffic Sign is Free From Any Breakdown In The Paint Or Protective System.	1 year	1 month		5 years	Service Inspect
4.48	Traffic Signs	The Service Provider shall ensure that each Traffic Sign complies with all relevant Highway Standards where the timescales set out in this Performance Requirement are not otherwise superseded by the timescales set out in other Performance Requirements within this Service Standard 4.	1 month	1 month		2 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.49	Street Lighting and Traffic Signs	The Service Provider shall ensure that each item of Powered Apparatus and its supporting infrastructure has a current electrical certificate in accordance with the Highway Standards.	1 month	1 month		2 years	Inspect
4.50	Road Markings	The Service Provider shall ensure that Road Markings within each ten (10) metre long section of Carriageway have at least 70% by surface area of the original material making up the relevant Road Markings remaining.	10 Business Days	5 Business Days		2 years	Service Inspect
4.51	Road Markings	The Service Provider shall ensure that Road Markings within each ten (10) metre long section of Carriageway have a Colour Luminance Factor in accordance with all relevant Highway Standards.	10 Business Days	5 Business Days		2 years	Service Inspect
4.52	Road Markings	The Service Provider shall ensure that Road Markings within each ten (10) metre long section of Carriageway have a Skid Resistance in accordance with all relevant Highway Standards.	10 Business Days	5 Business Days		2 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.53	Road Markings	The Service Provider shall ensure that Road Markings within each ten (10) metre long section of Carriageway have a Retroreflectivity in accordance with all relevant Highway Standards.	10 Business Days	5 Business Days		2 years	Service Inspect
4.54	Road Markings	The Service Provider shall ensure that within each ten (10) metre long section of Carriageway, Road Markings are located and aligned in accordance with all relevant Highway Standards.	10 Business Days	5 Business Days		2 years	Service Inspect
4.55	Road Markings	The Service Provider shall ensure that within each ten (10) metre long section of Carriageway, no Road Marking is missing.	10 Business Days	5 Business Days		2 years	Service Inspect
4.56	Road Markings and Traffic Signs	The Service Provider shall ensure that within each ten (10) metre long section of Carriageway, Road Markings and associated Traffic Signs comply with any applicable Traffic Regulation Order.	10 Business Days	5 Business Days		6 months	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.57	Road Markings	The Service Provider shall ensure that within each ten (10) metre long section of Carriageway, no Road Marking is obscured by Vegetation or Detritus.	10 Business Days	5 Business Days		6 months	Service Inspect
4.58	Road Studs	Where there is a Prohibitory Road Marking, the Service Provider shall ensure that no Road Stud which is required to comply with relevant Highway Standards is missing.	5 days	5 days		2 years	Service Inspect
4.59	Road Studs	Subject to Performance Requirement 4.58, the Service Provider shall ensure that each Road Stud which is required to comply with relevant Highway Standards or which is otherwise present at the date of the Contract or which ought to be present on the Project Network is present and operational at all times.	1 month	1 month		2 years	Service Inspect
4.60	Road Studs	The Service Provider shall ensure that no Road Stud has a Retroreflectivity less than that required within the relevant Highway Standards.	1 Month	1 month		2 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.61	Street Name Plates	The Service Provider shall ensure that there is a Street Name Plate displayed appropriately at the end of each side of every road on the Project Network, where such road meets another road on the Project Network.	1 month	1 month		5 years	Service Inspect
4.62	Street Name Plates	Notwithstanding Performance Requirement 4.61 and Performance Requirement 4.63, the Service Provider shall ensure that there is a Street Name Plate displayed appropriately at all locations (including on Footpaths) where a Street Name Plate existed at the commencement of the Contract.	1 month	1 month		5 years	Service Inspect
4.63	Street Name Plates	The Service Provider shall ensure that on long lengths of roads, repeater Street Name Plates are displayed within five hundred (500) metres of each junction with that road.	1 month	1 month		5 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.64	Street Name Plates	The Service Provider shall ensure that each new or replacement Street Name Plate displays the relevant street name using black Kindersley font on a white background (or such alternative font and/or background as the Authority shall specify) unless the Service Provider has obtained Authority Approval to use an alternative font and/or background.	1 month	1 month		N/A	Service Inspect
4.65	Street Name Plates	The Service Provider shall ensure that each new or replacement Street Name Plate displays the relevant postcode using Kindersley font in red (or such alternative font as the Authority shall specify).	1 month	1 month		N/A	Service Inspect
4.66	Street Name Plates	The Service Provider shall ensure that each new or replacement Street Name Plate for each cul-de-sac on the Project Network incorporates a “No through Road” symbol in accordance with all relevant Highway Standards.	1 month	1 month		N/A	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.67	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is in accordance with all relevant Highway Standards where the timescales set out in this Performance Requirement are not otherwise superseded by the timescales set out in other Performance Requirements within this Service Standard 4.	1 month	1 month		5 years	Service inspect
4.68	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is not obscured whether by Vegetation or other obscuring factors.	5 Business Days	5 Business Days		6 month	Service Inspect
4.69	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is visible and legible in accordance with all relevant Highway Standards.	1 month	1 month		1 year	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.70	Street Name Plates	The Service Provider shall ensure that each Street Name Plate has no degradation of sign face material, including by delaminating or shrinkage, or loss of legend through the peeling of Cut or Screened Legends.	1 month	1 month		1 year	Service Inspect
4.71	Street Name Plates	The Service Provider shall ensure that the sign face materials used on each Street Name Plate face shall not degrade in terms of the colours below the minimum acceptable levels stated in accordance with the relevant Highway Standards.	1 month	1 month		1 year	Service Inspect
4.72	Street Name Plates	The Service Provider shall ensure that all Street Name Plates are Free From Detritus, Algae And Tree Sap.	1 month	1 month		3 months	Service Inspect
4.73	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is Free From Any Breakdown In The Paint Or Protective System.	1 year	1 month		5 years	Service Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.74	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is Structurally Sound.	1 month	1 month		1 year	Service Inspect
4.75	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is True and Plumb.	1 month	1 month		1 year	Service Inspect
4.76	Street Name Plates	The Service Provider shall ensure that each Street Name Plate is Free From Corrosion.	1 month	1 month		5 years	Service Inspect
4.77	Street Lighting	The Service Provider shall ensure that each item of Powered Apparatus identified in the Mayrise Database which is required to power any Festive Decorations to be installed by the Authority shall be fitted with sockets, time switches and appropriate isolators which comply with all relevant Highway Standards.	5 days	1 day		N/A	Inspect
4.78	Street Lighting	The Service Provider shall ensure that each socket, time switch and appropriate isolator as required under Performance Requirement 4.77 is operable at all times during the period when the Authority has notified the Service Provider that Festive Decorations are required to be in operation.	1 hour	1 hour		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.79	Traffic Signs	The Service Provider shall ensure that there is a Boundary Sign in place at each boundary with another authority on the Principal Road Network at a location and to a design which has received Authority Approval.	1 month	1 month		6 months	Service Inspect
4.80	Street Lighting	Subject to any requirements contained within any relevant Highway Standards, the Service Provider shall ensure that each replacement Lighting Column is finished black unless Authority Approval has been obtained for an alternative colour.	1 month	1 month		5 Milestone Years	inspect
4.81	Traffic Signs and Street Nameplates	Subject to any requirements contained within any relevant Highway Standards, the Service Provider shall ensure that each replacement Traffic Sign Pole and Street Name Plate Pole is finished black unless Authority Approval has been obtained for an alternative colour.	1 month	1 month		5 years	inspect
4.82	Street Lighting, Traffic Signs and Street Nameplates	The Service Provider shall ensure that each Lighting Unit, Traffic Sign and Street Name Plate is individually identified and clearly displays the unique reference for that item of Apparatus.	1 month	1 month		5 years	Service inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.83	Street Lighting and Traffic Signs	When a Lighting Unit or Traffic Sign is being replaced, the Service Provider shall reconnect, to an appropriate electricity supply, any Private Cable Network providing power to any Powered Apparatus that was connected to the Lighting Unit or Traffic Sign being removed.	1 month	1 month		5 Milestone Years	Inspect
4.84	Health and Safety	The Service Provider shall ensure that the Street Lighting Service is delivered in accordance with Clause 37 and 38 and the Service Provider Health and Safety Manual.	N/A	1 day		N/A	Inspect
4.85	Street Lighting, Traffic Signs and Street Nameplates	The Service Provider shall ensure that each Lighting Unit, Traffic Sign and Street Name Plate is Clean.	1 month	1month		1 year	Service Inspect
4.86	Traffic Signs	The Service Provider shall ensure that where a Heritage Traffic Sign is replaced, such Heritage Traffic Sign is replaced on a Like For Like Basis unless the Service Provider obtains Authority Approval for use of an alternative material or design.	1 month	1 month		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.87	Street Lighting	The Service Provider shall rectify all Snagging Items in relation to each Lighting Unit within two (2) months of such Lighting Unit receiving a Certificate of Compliance.	N/A	1 month		N/A	Inspect
4.88	Traffic Signs	The Service Provider shall not remove a Traffic Sign unless such removal is followed by the repositioning of the Traffic Sign in a manner which complies with the requirements of the Traffic Signs Manual, or unless the removal is set out in the Annual Investment Programme, or Authority Approval has been obtained for the removal	N/A	1 month		N/A	Inspect
4.89	Street Lighting and Traffic Signs	The Service Provider shall remove Lighting Units from the Project Network as requested by the Authority pursuant to Paragraph e) (i) of Annexure 1 to this Service Standard.	3 month	1 month		N/A	Inspect

	Service Delivery Output Element	Performance Requirement	Rectification Period	Repeat Period	Adjustment Type	Grace Period	Monitoring Methodology
4.90	Street Lighting and Traffic Signs	The Service Provider shall remove redundant Lighting Unit Stumps and redundant Traffic Sign Stumps from the Project Network.	1 month	1 month		1 year	Inspect
4.91	Traffic Signs	The Service Provider shall ensure that each Structure and Third Party Structure where the minimum clearance of 16' 6" (5.03 metres) cannot be achieved, has Traffic Signs and Road Markings, including advance and diversion signs where required, that comply with Highway Standards.	5 days	5 days		6 months	Inspect

Annexure 1 to Service Standard 4

Specific Lighting Design Standards

a) Lighting Classes

Required Lighting Classes are detailed in the Mayrise Database under field 'Lighting Class' for residential areas (S classes). Lighting classes for traffic routes and city centre areas shall be selected using the criteria set out in BS 5489-1:2013.

b) Consistency of lighting within Boundary Polygons

(i) The Mayrise MapNow GIS layer sets out Boundary Polygons which are hatched to denote the Lighting Class required for a specific length of the Project Network. All Lighting Units within each individual Boundary Polygon must have the same Specific Lighting Design Standards including Lighting Class and aesthetic appearance unless Authority Approval has been otherwise obtained. Where adjacent Boundary Polygons form part of the same road and have the same Lighting Class then the aesthetic appearance of the Lighting Units shall be the same where Lighting Units are replaced.

(ii) A proportion of Non Compliant Lighting Units have been re-classified as "Partially Compliant". The Lighting Units now considered to be Partially Compliant are Lighting Columns where the column is believed to have been installed on the Project Network since January 2000. These Lighting Units are included in the MAYRISE database in the field 'PFI Status' as Partially Compliant (Standard and Non-Standard). The columns associated with these Lighting Columns may be included within Boundary Polygons as part of a street lighting replacement scheme if they can be used in conjunction with replaced Lighting Units to provide a consistent uniform appearance within the appropriate Boundary Polygons and achieve Relevant Lighting Standards and specific Design Standards with the exception of Paragraph p) to this Annexure.

c) Colour Rendering Index

All replaced Lighting Units shall have light sources with a Colour Rendering Index equal to or in excess of Ra20 but shall not be classed as Full Spectrum Light Sources unless otherwise specified in the Mayrise Database. Details of specific Ra values are detailed in the Mayrise Database field entitled 'Colour –Rendering Index'.

d) Not used

e) Removal of Lighting Units

(i) The Authority reserves the right to have Lighting Units removed where they exist, during the CIP to a maximum of one hundred (100) in total by the end of the CIP.

(ii) There are a number of redundant Lighting Units and Traffic Signs to be removed from the Project Network which may still have an electrical supply. These are identified in the Mayrise data base field UNIT TYPE under the

description 'Stump'. The Service Provider is to remove these 'Stumps' from the Project Network within the first Contract Year of the Term.

f) Powered Apparatus affixed to buildings

Some Powered Apparatus on the Project Network is fixed to buildings which are not owned by the Authority in its capacity as Highways Authority. This arrangement should continue in these locations, except where Authority Approval has been obtained, provided that when an existing Necessary Consent of a Third Party Land owner is withdrawn, the provisions of clause 16 of the Contract shall apply.

Should the Service Provider wish to wall mount Powered Apparatus in other locations throughout the Project Network then this should be subject to Authority Approval and, where applicable, the Necessary Consents shall be obtained by the Service Provider in accordance with clause 16 of the Contract.

g) Lighting Classes

(i) Where the required Lighting Class has not been specified on the Mayrise MapNow GIS layer or in the Mayrise Database data field 'Lighting Class' of the MISC tab, then the Service Provider shall select the appropriate Lighting Class from BS 5489-1:2003 using the S Lighting Classes for residential areas as identified in Tables B1 to B5 and BS 5489-1:2013 using the M and C Lighting Classes as identified in Tables A.1 to A.8 when replacing Lighting Units;

(ii) Where Full Spectrum Light Sources are used in the replacement of an existing Lighting Unit in accordance with this Contract and the Mayrise Database specifies that such replacement Lighting Unit shall be an S Lighting Class then the Service Provider may, if he chooses to use a Full Spectrum Light Source, be permitted to use a Lighting Unit of S Lighting Class that is one (1) level below that S Lighting Class that has been specified for the 'Lighting Class' in the Mayrise Database or the Lighting Class in Table A1.1;

(iii) All Luminaires used on roads on the Primary Road Network and the Secondary Road Networks shall have a luminous intensity class of G3 or greater;

(iv) All Luminaires used to illuminate roundabouts shall have a luminous intensity class of G4 or greater;

(v) Luminaires shall have adequate optical control to minimise light pollution and obtrusive light to properties and shall conform to the E3 Environmental Zone Obtrusive Light Limitations;

(vi) Whenever a M1 or M2 Lighting Class is required, the requirements of at least S3 Lighting Class will be applied to associated Footways, Footpaths, Cycle Paths and Cycle Ways on the Project Network within 6m of the edge of a Carriageway. Whenever a Lighting Class of M3, M4 or M5 is required, the requirements of at least S4 Lighting Class will be applied to associated Footways, Footpaths, Cycle Paths and Cycle Ways on the Project Network which are within 6m of the edge of a Carriageway. Any elements of any ME Lighting Class Boundary Polygon (other than a polygon which does not include a Carriageway) further than 6m away from the Carriageway edge shall be lit to a minimum of S6 Lighting Class;

(vii) Where S Lighting Class is required, the area to which the S Lighting Class is applied shall be the whole of the relevant area of the Project Network including the Carriageway, Footway and Verge;

(viii) All Subways shall have a Lighting Class which is a minimum of one (1) Lighting Class higher during the day than that of the required night time Lighting Class; and

(ix) In relation to all Lighting Units that are in the M Lighting Class, Disability Glare and Threshold Increment (TI) (both as defined in BS EN 13201: 2003) shall not exceed 15%.

h) Conflict Areas and Mounting Heights

(i) Where the required mounting height has not been specified in the Mayrise Database data field 'Mounting Height' of the MISC tab, then the Service Provider shall ensure that when replacing Lighting Units, the Mounting Height is within the range specified in Table A1.1. The Service Provider shall ensure that Mounting Heights in Conflict Areas remain constant within discrete Boundary Polygons unless Authority Approval has been obtained for a step variation in Mounting Heights within a Boundary Polygon.

(ii) Where a Conflict Area exists on a Carriageway on the Project Network, the Lighting Class for the Conflict Area shall be determined from Table A1.1. Where traffic routes of differing Lighting Classes intersect, the higher Lighting Class shall determine the Conflict Area Lighting Class.

(iii) The Service Provider shall ensure that where traffic routes of different Lighting Class intersect, that the average illumination on the higher Lighting Class traffic route does not fall below the average illumination of the lower Lighting Class traffic route at any times.

(iv) The Service Provider shall determine whether there are any Conflict Areas prior to any Power Variation reductions being applied.

Table A1.1 Conflict Areas and Mounting Heights

Lighting Class	Conflict Area		Height (H) of a Lighting Column (m)
	Non Signalised Areas	Signal Controlled Areas	
M2	C1	C2	8 => H <=12
M3	C2	C3	8 => H <=12
M4	C3	C4	8 => H <=12
M5	C4	C5	=<8
S1 & 2	N/A	N/A	=<8
S3 to S6	N/A	N/A	=<6
C1 & C2	N/A	N/A	=>8
C3 & C4	N/A	N/A	=<8
C5	N/A	N/A	=<6

i) CCTV

Notwithstanding the provisions of this Annexure 1 of this Service Standard 4 of Schedule 2 (Output Specification), where the Service Provider is replacing Lighting Units in those areas of the Project Network that have CCTV, (excluding police MOCAMs) at the time of such replacement within 200m of any Lighting Unit, then, unless specifically identified otherwise in the Mayrise Database field 'Lighting Class', the Service Provider shall ensure that:

- all such Lighting Units are of minimum Lighting Class of:
 - C2 on the Prestige Footway Network and High Usage Footway Network;
 - M3 on the Primary Road Network and the Secondary Road Network Carriageways;
 - S2 on the Link Road Network Carriageways; and
 - S3 on the Local Road Network Carriageways.

- all Luminaires shall have a luminous intensity class of G4 or greater; and

- all Lamps shall have a colour rendering index equal to or in excess of Ra60.

j) Non-Standard Lighting Units

The Service Provider shall ensure that any Non-Standard Lighting Unit which is to be replaced pursuant to the requirements of this Service Standard 4 of this Output Specification shall be of similar appearance and equivalent or higher in quality to the original appearance and quality of the Non-Standard Lighting Unit being replaced, and that any maintenance operations ensure that the aesthetic style of the Non-Standard Lighting Unit is maintained. The Service Provider shall not replace any Non-Standard Lighting Unit during the Term without the Service Provider having first obtained Authority Approval for the Non-Standard Lighting Unit to be used in such replacement.

k) Conservation Areas

Lighting Units within Conservation Areas are identified in the Mayrise Database data field 'Conservation Area'. Where and to the extent the Service Provider is replacing Lighting Units, removing Lighting Units or providing additional Lighting Units in Conservation Areas then, regardless of being identified as Standard or Non-Standard in the Mayrise Database, the Service Provider shall not replace such Lighting Units unless it has first obtained Authority Approval as to the style of such Lighting Units and the Lighting Class to be achieved by such Lighting Units. The Service Provider shall allow for 1000 existing Lighting Units in locations notified by the Authority to be replaced with Non-Standard Lighting Units for which Authority Approval (acting reasonably) must be obtained.

l) Trees

Where and to the extent the Service Provider is replacing Lighting Units that are affected by the presence of Highway Trees, the Service Provider shall, when considering the appropriate design for such replacement Lighting Units:

➤ ensure that such design minimises the need for unnecessary pruning and damage to any Highway Trees throughout the expected life of the replacement Lighting Unit; and

➤ take into account the anticipated growth in height and spread of any relevant Highway Trees.

m) Design Requirements of Lighting Columns

All Lighting Columns installed by the Service Provider shall comply with BSEN 40 and any subsequent amendments.

All Lighting Columns installed by the Service Provider shall, in addition to any approved Attachments (both existing and proposed) as detailed in the Mayrise Database, be designed in order to carry signs of such size as set out in Table A1.2 below.

Table A1.2 Minimum Design Requirements of Columns and Posts in relation to Signs (additional or otherwise) to be attached

Column/Post Height (m)	Sign Size	Sign Position in accordance with BD26199
Up to and including 8m	0.6m ²	Symmetrical or Offset
Over 8m	1.0m ²	Symmetrical or Offset

n) Lighting Activation Levels

Unless specified otherwise in the Mayrise Database, the Service Provider shall ensure that Lighting Activation Levels are as set out in Table A1.3 (a) or (b) as appropriate (depending on whether or not the Service Provider is utilising a LED solution) unless Authority Approval has been otherwise obtained:

Table A1.3 (a) Lighting Activation Levels (non LED Solution)

Lighting Units, Illuminated Signs & Powered Apparatus	Lighting Activation Level
Lighting Class M2 and C1	On at 35 lux and off at 26 lux
On Project Network (general)	On at 35 lux and off at 18 lux
Subway and under a Bridge	Continuous
Illuminated Traffic Sign (general)	On at 35 lux and off at 18 lux
Belisha Beacon	Continuously Flashing
Other	As Authority Approved

Table A1.3 (b) Lighting Activation Levels (LED Solution)

Lighting Units, Illuminated Signs & Powered Apparatus	Lighting Activation Level
Lighting Class M2 and C1	On at 35 lux and off at 26 lux
On Project Network (general)	On at 20 lux and off at 20 lux
Subway ,and under a Bridge	Continuous
Illuminated Traffic Sign (general)	On at 20 lux and off at 20 lux
Belisha Beacon	Continuously Flashing
Other	As Authority Approved

o) Power Variation Requirements

(i) The Service Provider shall ensure each Lighting Unit has Power Variation Capability by the end of the CIP unless Authority Approval has otherwise been obtained.

(ii) The Service Provider shall ensure that all Lighting Units, once Power Variation Capability has been provided, shall be switched on at their designed operating parameters until such time as the Lamp, in particular that of a discharge Lamp, is run up to its full operational power parameters. After this period, the Service Provider shall ensure that the power to the Lamp is varied in accordance with the Mayrise Database field entitled 'Power Variation' which sets out whether illumination levels are required to remain constant, increase or decrease. Where the required Power Variation Requirement has not been specified in the Mayrise Database then Power Variation shall be as specified in Table A1.4.

Table A1.4 Power Variation Requirements

Lighting Class	Power Variation (PV) (Lamp lumens % reduction)	PV Time
M	-30%	20:00 – switch off
S	-30%	24:00 - switch off
C	-40%	24:00 - switch off

(iii) The Service Provider shall ensure each Lighting Unit is operating in accordance with the Power Variation Requirements set out in the Mayrise Database and Annexure 1 to this Service Standard 4 unless Authority Approval has otherwise been obtained.

p) Location

All Lighting Columns shall be sited at the rear of a Verge or Footway unless it is physically impossible to do so (as notified by the Service Provider to the Authority in the Annual Investment Programme) in which case the Authority (acting in its absolute discretion) shall specify where the Lighting Column is to be situated. All new and replacement Apparatus shall be sited so as to minimise, insofar as is reasonable and practicable, nuisance, danger and obstruction to all residents, businesses and users of the Project Network. Where a complaint as to the positioning of Apparatus occurs, the Service Provider shall submit to the Authority not less than 2 alternative solutions for Authority Approval. Should the Service Provider be unable to obtain Authority Approval for the Service Provider's alternative solutions, then the matter shall be referred to the Dispute Resolution Procedure.

q) Private Cables

Where any Private Cable Installations need to be altered, the cables shall be replaced rather than jointed and extended, unless Authority Approval has otherwise been obtained that the existing cables are proven to be in good condition visually and compliant with the IEE Wiring Regulations BS7671.

r) Underground Cables

The type, route, depth and location of cables and joints shall be recorded on the Management Information System.