

SILVERTOWN TUNNEL

Volume 3: Project Agreement – Schedules 2 to 31

Schedule 19 – Handback Requirements

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SCHEDULE 19

HANDBACK REQUIREMENTS

1. General

- 1.1 On the Expiry Date, Project Co shall handback the Assets to TfL or its nominee in accordance with this Schedule 19 (*Handback Requirements*) and clause 38.2(a) and ensure that:
- 1.1.1 the Project Facilities are:
 - a. in a safe and operationally functional condition;
 - b. in a condition to be expected of an asset that has been operated and maintained in accordance with the requirements of this Agreement; and
 - c. in a condition which meets all Applicable Requirements;
 - 1.1.2 the Elements each have the relevant minimum Residual Life specified in Annex 1 (*Handback Elements*); and
 - 1.1.3 there are no Failures or Service Failures.
- 1.2 Project Co shall ensure that, where any of the Tunnel ME&P Systems Elements set out in Annex 1 (*Handback Elements*) have a required minimum Residual Life of five (5) years or less, such Elements shall be handed back to TfL or its nominee with sufficient spares to allow TfL to operate and maintain those Elements at or above the Availability Requirements for the duration of the minimum Residual Life for such Element specified in Annex 1 (*Handback Elements*).

2. Handback Plan

- 2.1 No later than sixty six (66) months prior to the Expiry Date, Project Co shall prepare and submit a handback plan to TfL under the Review Procedure including the details specified in paragraph 2.2 (the "**Handback Plan**").
- 2.2 The Handback Plan shall include but not be limited to:
- 2.2.1 Project Co's proposed programme of activities associated with the handback process so as to enable a seamless transition and handback of Assets and responsibilities to TfL or its nominee without causing any adverse impact on Users or the operation and maintenance of the Project Facilities;
 - 2.2.2 details of the transition training required pursuant to paragraph 3 (*Training*);
 - 2.2.3 Project Co's planned dates for all applicable Handback Inspections required to be carried out by Project Co pursuant to paragraph 5 (*Initial Handback Inspection*) and paragraph 7 (*Interim Handback Inspection*);
 - 2.2.4 Project Co's proposed methodology for assessing the Residual Life of the Elements which shall be in accordance with Good Industry Practice;
 - 2.2.5 Project Co's proposed methodology for inspecting and assessing the condition of the Project Facilities which shall be in accordance with Good Industry Practice;

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- 2.2.6 Project Co's strategy for undertaking Rectification Works, in the event any Rectification Works are required prior to the Expiry Date;
 - 2.2.7 a list of the Assets which Project Co envisages will be transferred to TfL or its nominee on the Expiry Date pursuant to this Schedule 19 (*Handback Requirements*) and clause 38.2(a);
 - 2.2.8 Project Co's proposed arrangements for making appropriate allowance for the timing for any weather dependent or seasonal surveys or inspections in its programme; and
 - 2.2.9 the proposed format and content of any Handback Reports required to be prepared and submitted by Project Co pursuant to this Schedule 19 (*Handback Requirements*).
- 2.3 Project Co shall comply with the Handback Plan once it has been endorsed by TfL as "received" or "received with comments" by TfL in accordance with the Review Procedure and shall ensure that all of the activities and processes contained in the Handback Plan have been implemented and/or executed (as applicable) prior to the Expiry Date.

3. Training

- 3.1 No later than three (3) months prior to the Expiry Date, or as soon as reasonably practicable following the issuance of a Termination Notice during the Availability Period, Project Co shall at its own cost arrange for and provide training in accordance with the Handback Plan to any staff nominated by TfL in the safe use, operation and maintenance of the Project Facilities to enable a seamless transition of responsibilities at handback.
- 3.2 Project Co shall be responsible for all costs of the training required by paragraph 3.1, including all required materials.

4. Handback Inspections

- 4.1 TfL and its nominees shall be entitled to attend the Initial Handback Inspection and the Interim Handback Inspection and Project Co shall afford TfL and its nominees any reasonable assistance required by TfL during the carrying out of such inspections.
- 4.2 Project Co shall be responsible for all costs associated with the Initial Handback Inspection and the Interim Handback Inspection (other than the staff and attendance costs of TfL or its nominees).

5. Initial Handback Inspection

- 5.1 No earlier than sixty six (66) months and no later than five (5) years prior to the Expiry Date, Project Co shall inspect:
 - 5.1.1 the Elements in order to assess the Residual Life of each Element; and
 - 5.1.2 the Project Facilities in order to assess whether they comply with paragraph 1.1.1,

(the "**Initial Handback Inspection**").
- 5.2 The Initial Handback Inspection shall be carried out by Project Co in accordance with the methodology detailed in the Handback Plan.

5.3 Project Co shall notify TfL a minimum of ten (10) Working Days in advance of the date(s) on which it wishes to carry out the Initial Handback Inspection.

5.4 Following the issue of such notice, the Parties shall agree the date(s) on which the Initial Handback Inspection is to take place, or in the event no agreement is reached, the Initial Handback Inspection shall take place on as the date(s) specified by TfL (acting reasonably).

6. Initial Handback Report

6.1 Within fourteen (14) Working Days of the Initial Handback Inspection, Project Co shall prepare and submit an initial handback report to TfL under the Review Procedure which shall include, but not be limited to, the following:

- 6.1.1 Project Co's assessment of the results from the Initial Handback Inspection;
- 6.1.2 a summary report on the condition of the Project Facilities and all of the Elements;
- 6.1.3 Project Co's determination of the Residual Life of each Element based on the methodology set out in the Handback Plan;
- 6.1.4 Project Co's determination of the condition of the Project Facilities based on the methodology set out in the Handback Plan;
- 6.1.5 a list of the Elements that have a Residual Life of less than the minimum required level as set out in Annex 1 (*Handback Elements*);
- 6.1.6 details of any parts of the Project Facilities that do not comply with paragraph 1.1.1;
- 6.1.7 details of any required Rectification Works;
- 6.1.8 Project Co's proposed programme for the completion of any required Rectification Works, such completion to be as soon as reasonably practicable but in any event no later than twenty four (24) months prior to the Expiry Date; and
- 6.1.9 an estimate of the costs required to be incurred by Project Co to complete such Rectification Works,

(the "**Initial Handback Report**").

6.2 In the event that the Initial Handback Report endorsed by TfL as "received" or "received with comments" in accordance with the Review Procedure identifies required Rectification Works, Project Co shall complete such Rectification Works in accordance with the programme set out in the Initial Handback Report.

7. Interim Handback Inspection

7.1 No earlier than twenty four (24) months and no later than twenty (20) months prior to the Expiry Date, Project Co shall inspect:

- 7.1.1 the Elements in order to assess the Residual Life of each Element; and

7.1.2 the Project Facilities in order to assess whether they comply with paragraph 1.1.1,

(the "**Interim Handback Inspection**").

7.2 The Interim Handback Inspection shall be carried out by Project Co in accordance with the methodology detailed in the Handback Plan.

7.3 Project Co shall notify TfL a minimum of ten (10) Working Days in advance of the date on which it wishes to carry out the Interim Handback Inspection.

7.4 Following the issue of such notice, the Parties shall agree the date(s) on which the Interim Handback Inspection is to take place, or in the event no agreement is reached, the Interim Handback Inspection shall take place on the date(s) specified by TfL (acting reasonably).

8. Interim Handback Report

8.1 Within fourteen (14) Working Days of the Interim Handback Inspection, Project Co shall prepare and submit an interim handback report to TfL under the Review Procedure which shall include, but not be limited to, the following:

8.1.1 Project Co's assessment of the results from the Interim Handback Inspection;

8.1.2 a summary report on the condition of the Project Facilities and all of the Elements;

8.1.3 Project Co's determination of the Residual Life of each Element based on the methodology set out in the Handback Plan;

8.1.4 Project Co's determination of the condition of the Project Facilities based on the methodology set out in the Handback Plan;

8.1.5 a list of the Elements that have a Residual Life of less than the minimum required level as set out in Annex 1 (*Handback Elements*);

8.1.6 details of any parts of the Project Facilities that do not comply with paragraph 1.1.1;

8.1.7 details of any Rectification Works undertaken pursuant to the Initial Handback Report;

8.1.8 details of any required Rectification Works;

8.1.9 Project Co's proposed programme for the completion of any required Rectification Works, such completion to be as soon as reasonably practicable but in any event no later than six (6) months prior to the Expiry Date; and

8.1.10 an estimate of the costs required to be incurred by Project Co to complete such Rectification Works,

(the "**Interim Handback Report**").

8.2 In the event that the Interim Handback Report endorsed by TfL as "received" or "received with comments" in accordance with the Review Procedure identifies required Rectification

Works, Project Co shall complete such Rectification Works in accordance with the programme set out in the Interim Handback Report.

9. Final Handback Inspection

9.1 No earlier than six (6) months and no later than three (3) months prior to the Expiry Date, TfL shall inspect or procure the inspection of:

9.1.1 the Elements in order to assess the Residual Life of each Element; and

9.1.2 the Project Facilities in order to assess whether they comply with paragraph 1.1.1,

(the "**Final Handback Inspection**").

9.2 The Final Handback Inspection shall be carried out by TfL in accordance with Good Industry Practice.

9.3 TfL shall notify Project Co a minimum of ten (10) Working Days in advance of the date(s) on which it wishes to carry out or procure the carrying out of the Final Handback Inspection.

9.4 Project Co shall provide TfL or its nominee with all access reasonably required to enable TfL or its nominee to undertake the Final Handback Inspection pursuant to paragraph 9.1.

10. Final Handback Report

10.1 Within fourteen (14) Working Days of the Final Handback Inspection, TfL shall provide a final handback report to Project Co, which shall include:

10.1.1 TfL's assessment of the results from the Final Handback Inspection;

10.1.2 a summary report on the condition of the Project Facilities and the Elements;

10.1.3 TfL's determination of the Residual Life of each Element, which shall be based on the methodology set out in the Handback Plan endorsed as "received" or "received with comments" by TfL in accordance with the Review Procedure;

10.1.4 TfL's determination of the condition of the Project Facilities, which shall be based on the methodology set out in the Handback Plan endorsed as "received" or "received with comments" by TfL in accordance with the Review Procedure;

10.1.5 a list of the Elements that have a Residual Life of less than the minimum required level as set out in Annex 1 (*Handback Elements*);

10.1.6 details of any parts of the Project Facilities that do not comply with paragraph 1.1.1;

10.1.7 details of any required Rectification Works;

10.1.8 a reasonable programme for the completion of any required Rectification Works by Project Co;

10.1.9 an estimate of the costs required to be incurred by Project Co to complete the Rectification Works; and

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10.1.10 a list of the Assets which are to be transferred from Project Co to TfL on the Expiry Date pursuant to this Schedule 19 (*Handback Requirements*) and clause 38.2(a),

(the "**Final Handback Report**").

10.2 In the event that the Final Handback Report identifies required Rectification Works, Project Co shall complete such Rectification Works in accordance with the programme set out in the Final Handback Report.

11. Retention and Bonding

11.1 In the event that the Interim Handback Report or the Final Handback Report identifies a requirement for Rectification Works then, unless Project Co has provided a Handback Bond at its own expense in accordance with paragraph 11.3 within 30 days of the Interim Handback Report or the Final Handback Report (as applicable), TfL shall be entitled to deduct an aggregate amount equal to the Rectification Amounts from any subsequent Availability Payments (the "**Retained Amounts**").

11.2 Any amounts retained by TfL pursuant to paragraph 11.1 shall be held on Project Co's behalf to be used in accordance with the provisions of this Schedule 19 (*Handback Requirements*).

11.3 Provided that no Termination Notice has been given in accordance with clause 34 (*Project Co Default*), Project Co may at any time following the identification of any Rectification Works in an Interim Handback Report or Final Handback Report procure the provision of a Handback Bond to TfL, in which case TfL shall not make any further deductions pursuant to paragraph 11.1 and TfL shall pay the difference between the Retained Amounts and the Incurred Costs (if any) to Project Co as soon as practicable.

11.4 Without prejudice to paragraph 11.5, if at any time a Handback Bond Provider Downgrade occurs, Project Co shall, within 30 days, deliver to TfL another Handback Bond which complies with the requirements of this Agreement and if Project Co does not do so, TfL shall be entitled to either (at TfL's absolute discretion);

11.4.1 make a demand for the full amount of the Handback Bond; or

11.4.2 deduct an aggregate amount equal to the Rectification Amounts from any subsequent Availability Payments.

11.5 If, following the provision of a Handback Bond to TfL pursuant to paragraph 11.3:

11.5.1 all of the inspections, plans, reports or Rectification Works required pursuant to this Schedule 19 (*Handback Requirements*) have not been carried out to TfL's satisfaction by the Expiry Date; or

11.5.2 a Termination Notice is given in accordance with this Agreement,

then TfL shall be entitled to make a demand for the full amount of the Handback Bond.

11.6 Project Co shall ensure that any Handback Bond provided pursuant to this paragraph 11 (*Retention and Bonding*) shall be maintained in full force and effect until the expiry date of the Handback Bond.

12. TfL Action

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12.1 If and to the extent that Project Co fails to:

12.1.1 complete the Initial Handback Inspection or the Interim Handback Inspection in accordance with the provisions of this Schedule 19 (*Handback Requirements*);

12.1.2 prepare and submit the Handback Plan, the Initial Handback Report or the Interim Handback Report in accordance with the provisions of this Schedule 19 (*Handback Requirements*) and Schedule 9 (*Certification and Review Procedure*); or

12.1.3 complete any Rectification Works in accordance with the provisions of this Schedule 19 (*Handback Requirements*),

then TfL shall be entitled to carry out or prepare, or procure the carrying out or preparation of, such inspections, plans, reports or Rectification Works, and the reasonable costs of carrying out or preparing such inspections, plans, reports or Rectification Works (including any irrecoverable VAT payable thereon) incurred by TfL (the "**Incurred Costs**") less the value of the Deducted Amounts will be a debt due from Project Co to TfL which is payable thirty (30) days from TfL's written demand.

12.2 To the extent that:

12.2.1 the inspections, plans, reports or Rectification Works required pursuant to this Schedule 19 (*Handback Requirements*) have been carried out, prepared and submitted (as the case may be) to TfL's reasonable satisfaction;

12.2.2 Project Co has provided TfL with evidence that the Rectification Works have been paid for by Project Co; and

12.2.3 no Termination Notice has been given in accordance with this Agreement,

then TfL shall pay the difference between the Deducted Amounts and the Incurred Costs (if any) or return the Handback Bond (as applicable) to Project Co as soon as practicable.

13. Asset Management System

13.1 Project Co shall ensure that once the Initial Handback Report or the Interim Handback Report has been endorsed by TfL as "received" or "received with comments" in accordance with the Review Procedure or the Final Handback Report has been provided to Project Co, the results of the assessment of the condition of the Project Facilities and the Residual Life of the Elements included in the relevant Handback Report are inputted into the Asset Management System required pursuant to Annex 8 (*Asset Management System*) of Part 1 (*Design and Construction Requirements*) of Schedule 10 (*Design and Construction Requirements*).

Annex 1 – Handback Elements

1. The Parties acknowledge and agree that the required minimum Residual Life of the Elements at the Expiry Date shall be as set out in the table below.

Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
Tunnel structure	<p>The tunnel structure constructed pursuant to:</p> <ul style="list-style-type: none"> a. the requirements of paragraph 2 (<i>Tunnel Structures</i>) of Annex 3 (<i>Structures Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), <p>including, but not limited to, the bored tunnel structure, cross passages, cut and cover tunnel structure and anti-circulation walls.</p>	95 years
Drainage infrastructure (in tunnel)	<p>The drainage infrastructure inside the tunnel constructed pursuant to:</p> <ul style="list-style-type: none"> a. paragraph 5 (<i>Drainage Systems</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); b. paragraph 5 (<i>Tunnel pumped drainage system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and c. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), <p>including, but not limited to, pipes, manholes, gullies, chambers, catch-pits, kerb drainage (if applicable), break tanks, including ironwork (covers and gratings).</p>	95 years
South approach highway bridge superstructure	<p>The south approach highway bridge superstructure and foundations constructed pursuant to:</p> <ul style="list-style-type: none"> a. paragraph 4 (<i>Silvertown Tunnel Southern Approach Northbound Overbridge</i>) of Annex 3 	95 Years

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Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
and foundations	<p>(Structures Requirements) of Part 1 (Design and Construction Requirements) of Schedule 10 (Design and Construction Requirements); and</p> <p>b. the relevant provisions of Part 3 (Project Co's Works Proposals) of Schedule 10 (Design and Construction Requirements),</p> <p>including, but not limited to, foundations, abutments, deck, parapets and beams.</p>	
South approach highway bridge bearings, joints, waterproofing (if applicable)	<p>The south approach highway bridge bearings, joints and waterproofing (if applicable) constructed pursuant to:</p> <p>a. paragraph 4 (Silvertown Tunnel Southern Approach Northbound Overbridge) of Annex 3 (Structures Requirements) of Part 1 (Design and Construction Requirements) of Schedule 10 (Design and Construction Requirements); and</p> <p>b. the relevant provisions of Part 3 (Project Co's Works Proposals) of Schedule 10 (Design and Construction Requirements).</p>	10 years
Gantries (superstructure)	<p>The gantries superstructure constructed pursuant to:</p> <p>a. paragraph 5 (Gantries) of Annex 3 (Structures Requirements) of Part 1 (Design and Construction Requirements) of Schedule 10 (Design and Construction Requirements); and</p> <p>b. the relevant provisions of Part 3 (Project Co's Works Proposals) of Schedule 10 (Design and Construction Requirements).</p>	25 Years
Gantries (substructure / foundations)	<p>The gantries substructure and foundations constructed pursuant to:</p> <p>a. paragraph 5 (Gantries) of Annex 3 (Structures Requirements) of Part 1 (Design and Construction Requirements) of Schedule 10 (Design and Construction Requirements); and</p> <p>b. the relevant provisions of Part 3 (Project Co's Works Proposals) of Schedule 10 (Design and Construction Requirements).</p>	95 years
Retaining walls	The retaining walls constructed pursuant to:	95 Years

Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
	<p>a. paragraph 7 (<i>Retaining walls – Standalone and including Ground Slabs</i>) of Annex 3 (<i>Structures Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, joints.</p>	
Pavement	<p>The pavement constructed pursuant to:</p> <p>a. paragraph 2 (<i>Roadworks</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, pavement and kerbs.</p>	10 Years
Road restraint systems	<p>The road restraint systems constructed pursuant to:</p> <p>a. paragraph 4 (<i>Road Restraints Systems</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, safety barriers, fitting and anchors and pedestrian guard railing (if applicable).</p>	15 Years
Road markings and studs	<p>The road markings and studs constructed pursuant to:</p> <p>a. paragraph 1 (<i>Traffic Signage</i>) of Annex 6 (<i>Traffic safety and control requirements (outside tunnel)</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p>	2 Years

Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
	b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>).	
Footways and hard paved areas	The footways and hard paved areas constructed pursuant to: a. paragraph 7 (<i>Road Pavements</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), including, but not limited to, edging and paved surfaces.	10 Years
Drainage infrastructure (outside tunnel)	The drainage infrastructure (outside the tunnel) constructed pursuant to: a. paragraph 5 (<i>Drainage Systems</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), including, but not limited to, manholes, gullies, pipework and storage tanks including ironwork (covers and gratings).	95 Years
Boundary fencing or noise barriers (brick / concrete – if applicable)	The boundary fencing or noise barriers made of brick or concrete constructed pursuant to: a. paragraph 3 (<i>Fencing and Noise Barriers</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>).	20 Years
Boundary fencing or noise barriers	The boundary fencing or noise barriers made of timber constructed pursuant to: a. paragraph 3 (<i>Fencing and Noise Barriers</i>) of Annex 1 (<i>Highways and General</i>	5 Years

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Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
(timber – if applicable)	<p><i>Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>).</p>	
Boundary fencing or noise barriers (metal – if applicable)	<p>The boundary fencing or noise barriers made of metal constructed pursuant to:</p> <p>a. paragraph 3 (<i>Fencing and Noise Barriers</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>).</p>	15 Years
Street lighting	<p>The street lighting constructed pursuant to:</p> <p>a. paragraph 8 (<i>Street Lighting</i>) of Annex 1 (<i>Highways and General Requirements</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, columns, luminaires, cabinets and lighting control units.</p>	5 Years
Traffic safety and control system (outside tunnel)	<p>The traffic safety and control system outside of the tunnel which forms part of the Project Facilities constructed pursuant to:</p> <p>a. Annex 6 (<i>Traffic safety and control requirements (outside tunnel)</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, VMSs, fixed signs and cabinets (including below ground chambers).</p>	5 Years

Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
Plant room	The plant room constructed pursuant to: <ul style="list-style-type: none"> a. paragraph 1.10 of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); b. paragraph 9.28 of Annex 3 (<i>Structures Requirement</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and c. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>). 	95 Years
Tunnel service / control building(s)	The tunnel service and control buildings constructed pursuant to: <ul style="list-style-type: none"> a. paragraph 9 (<i>Buildings Requirements</i>) of Annex 3 (<i>Structures Requirement</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>). 	25 Years
Tunnel ventilation system	The tunnel ventilation system constructed pursuant to: <ul style="list-style-type: none"> a. paragraph 3 (<i>Tunnel ventilation system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), including, but not limited to, fans, air quality sensors, control system and cables/ducting.	5 Years
Tunnel pumped drainage system	The tunnel pumped drainage system constructed pursuant to: <ul style="list-style-type: none"> a. paragraph 5 (<i>Tunnel pumped drainage system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and 	5 Years

Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
	<p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, pumps, the sump suppression system and the sump hydrocarbon detection system.</p>	
Tunnel fixed fire fighting system	<p>The sprinklers, nozzles and the smoke and fire detection system for the tunnel fixed fire fighting system constructed pursuant to:</p> <p>a. paragraph 11 (<i>Tunnel fixed fire fighting system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>).</p>	5 Years
Tunnel fixed fire fighting system	<p>The water mains and hydrants for the tunnel fixed fire fighting system constructed pursuant to:</p> <p>a. paragraph 11 (<i>Tunnel fixed fire fighting system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>).</p>	15 Years
Tunnel lighting system	<p>The tunnel lighting system constructed pursuant to:</p> <p>a. paragraph 4 (<i>Tunnel lighting system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, lighting control units, luminaires, main lighting, emergency lighting and evacuation lighting.</p>	5 Years

Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
Tunnel incident detection and monitoring system	<p>The tunnel incident detection and monitoring system constructed pursuant to:</p> <ul style="list-style-type: none"> a. paragraph 8 (<i>Tunnel incident detection and monitoring system</i>) of Annex 3 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), <p>including, but not limited to, CCTV cameras, control systems and the AID system.</p>	5 Years
Tunnel communications system	<p>The tunnel communications system constructed pursuant to:</p> <ul style="list-style-type: none"> a. paragraph 6 (<i>Tunnel communications system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), <p>including, but not limited to, control systems, voice alarm/public address system, emergency telephones, telephone cabinets, radio break-in and re-broadcasting system and mobile phone network infrastructure.</p>	5 Years
Tunnel control systems	<p>The tunnel control system constructed pursuant to:</p> <ul style="list-style-type: none"> a. paragraph 9 (<i>Tunnel control system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>), <p>including, but not limited to, interfaces with LSTOC, all PMCS, SCADA and other control and monitoring equipment in the primary and secondary service buildings.</p>	5 Years
Tunnel electricity	The electricity supply and distribution system constructed pursuant to:	5 Years

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Asset	Element(s)	Required Minimum Residual Life at the Expiry Date
supply and distribution system	<p>a. paragraph 10 (<i>Tunnel electrical power supply and distribution system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, switchgear; distribution panels, the UPS and cables.</p>	
Traffic and other signage system	<p>The traffic and other signage system constructed pursuant to:</p> <p>a. paragraph 7 (<i>Tunnel traffic and other signage system</i>) of Annex 2 (<i>Requirements for Tunnel ME&P Systems</i>) of Part 1 (<i>Design and Construction Requirements</i>) of Schedule 10 (<i>Design and Construction Requirements</i>); and</p> <p>b. the relevant provisions of Part 3 (<i>Project Co's Works Proposals</i>) of Schedule 10 (<i>Design and Construction Requirements</i>),</p> <p>including, but not limited to, tunnel approach variable message signals, fixed traffic signs, barriers and signals, portal lane control signs and tunnel lane control signs.</p>	5 Years