

BCV - Bridges and Structures (B&S)

Asset Type	Line Total Asset Base				Total
	Bakerloo	Central	Victoria	Waterloo & City	
Access Gantry	3	32	12	2	49
Ballast Retaining Wall		18			18
Brick Tunnel	1	4		4	9
Cable & Pipe Bridge	1	51	4		56
Cable Draw Pit	1	37	5		43
Cable Run	12	1743	10		1765
Cable Stile		222			222
Chimney	1		1		2
Covered Way	1	20	1	6	28
Culvert (over 600mm)		21	2		23
Culvert (up to 600mm)					
Deep Tube Platform	28	45	23		106
Detraining Platform Structure					
Escalator Support Frame/Truss	29	72	33		134
Floodboard	4	10	3		17
Floodgate	2	9			11
Foot Bridge	24	68	9		101
Free Standing Wall	1	19	1		21
Generic Consolidated Record		16			16
Girdering	66	227	67	2	362
Intermediate Machine Chamber	1	1			2
Lift Structure Steelwork	3	3			6
Lighting Mast Column	5	107			111
Lighting Standard		42	3		45
Lighting Supp. Open Platform		438			438
Lighting Support	61	55	56		162

Asset Type	Line Total Asset Base				Total
	Bakerloo	Central	Victoria	Waterloo & City	
Lighting Support Sub-Surface					
Lighting Tower			1		1
Linear Station Staircase	34	103	42		179
Linear Trackside Staircase					
Load Gauge		1	1		2
Lower Machine Chamber	11	33	14		58
Open Platform		52			52
Over Bridge		30		1	31
Pipe Bridge					
Pipe Crossing – Over		1			1
Pipe Crossing – Under		24			24
Platform Canopy		45			45
Retaining Wall	23	301	7	1	332
Roof Support Structure	8	9	8		25
Shaft Structure	24	44	20	3	91
Signal Gantry		7			7
Spiral Staircase	9	11	2		22
Station Entrance Canopy	6	35	8		49
Station Viaduct		2			2
Sub Generating Platform	2	3	1		6
Sub-Surface Platform		7	2		9
Subway	2	28	5		35
Travelling Access Gantry					
Under Bridge	9	63	1		73
Upper Machine Chamber	10	31	14		55
Ventilation Plant Structural Elem	23	49	32		104
Ventilator		1			1
Viaduct		15			15

Asset Type	Line Total Asset Base				Total
	Bakerloo	Central	Victoria	Waterloo & City	
Water Tower					
Watertight Door	12	5			17
<b>Total</b>	<b>417</b>	<b>4158</b>	<b>388</b>	<b>19</b>	<b>4979</b>

BCV – Earth Structures (ES)

Asset Type	Bakerloo	Central	Victoria	Total
Cuttings (km)		129		129
Embankments (km)	4	158	2	164
<b>Total</b>	<b>4</b>	<b>287</b>	<b>2</b>	<b>293</b>

BCV – Deep Tube Tunnels (DTT)

DTT Asset Type (No.s)	Bakerloo	Central	Victoria	Total
Running Tunnel	35	55	48	140
Station Area	204	441	187	832
Station Platform Tunnel	28	52	23	103
Station Shaft	56	97	28	181
Tunnel Crossover	9	11	9	31
Tunnel Passage	48	148	147	363
Tunnel Shaft	4	20	25	50
<b>Total</b>	<b>384</b>	<b>824</b>	<b>477</b>	<b>1708</b>

SSL – Bridges and Structures (B&S)

Asset Type	Line Total Asset Base			Total
	District	Hammersmith & City	Metropolitan	
Access Gantry	25	15	18	58

Asset Type	Line Total Asset Base			
	District	Hammersmith & City	Metropolitan	Total
Ballast Retaining Wall	4	1	202	25
Brick Tunnel	63	1	48	112
Cable & Pipe Bridge	67	6	66	139
Cable Draw Pit	249		48	327
Cable Run	695	41	1368	2104
Cable Stile	124	2	210	336
Chimney	2	1	1	4
Covered Way	39		21	60
Culvert (over 600mm)	9		29	38
Culvert (up to 600mm)			1	1
Deep Tube Platform	10		16	26
Detraining Platform Structure			5	5
Escalator Support Frame/Truss	25		42	67
Floodboard	1			1
Floodgate	16			16
Foot Bridge	54	2	61	117
Free Standing Wall	18	7	18	43
Generic Consolidated Record				0
Girdering	299	44	301	644
Intermediate Machine Chamber				0
Lift Structure Steelwork	15	4	12	31
Lighting Mast Column	34	2	42	78
Lighting Standard	18		17	35
Lighting Supp. Open Platform	245	79	555	879
Lighting Support	63	7	78	148
Lighting Support Sub-Surface	5		2	7
Lighting Tower	2			2
Linear Station Staircase	121	34	106	261

Asset Type	Line Total Asset Base			
	District	Hammersmith & City	Metropolitan	Total
Linear Trackside Staircase	2		1	3
Load Gauge				0
Lower Machine Chamber	17	1	16	34
Open Platform	58	13	52	123
Over Bridge	47	2	61	110
Pipe Bridge		2		2
Pipe Crossing – Over	15		11	26
Pipe Crossing – Under	24	3	20	47
Platform Canopy	578	17	57	131
Retaining Wall	318	24	326	668
Roof Support Structure	7	3	7	17
Shaft Structure	22	4	20	46
Signal Gantry	53	15	16	84
Spiral Staircase	3		5	8
Station Entrance Canopy	27	5	31	63
Station Viaduct				0
Sub Generating Platform	1		1	2
Sub-Surface Platform	30		18	48
Subway	11	2	14	27
Travelling Access Gantry	4			4
Under Bridge	107	23	77	207
Upper Machine Chamber	17	1	16	34
Ventilation Plant Structural Elem	9		14	26
Ventilator	16	3	13	32
Viaduct	27	15	3	45
Water Tower	2		2	4
Watertight Door	3		3	6

Asset Type	Line Total Asset Base			
	District	Hammersmith & City	Metropolitan	Total
<b>Total</b>	<b>3110</b>	<b>379</b>	<b>3869</b>	<b>12340</b>

SSL – Earth Structures (ES)

Asset Type	District	Hammersmith & City	Metropolitan	Total
Cuttings (km)	103		161	264
Embankments (km)	88	7	211	306
<b>Total</b>	<b>191</b>	<b>7</b>	<b>372</b>	<b>863</b>

SSL – Deep Tube Tunnels

DTT Asset Type (No.s)	District	Hammersmith & City	Metropolitan	Total
Running Tunnel	2			2
Station Area	66		167	233
Station Platform Tunnel	22		30	52
Station Shaft	27	1	48	76
Tunnel Crossover				
Tunnel Passage				
Tunnel Shaft	3	2		5
<b>Total</b>	<b>120</b>	<b>3</b>	<b>245</b>	<b>368</b>

## **Schedule 1 – Specification**

### **SCOPE 2 – Bridges & Structures Maintenance (Planned Preventative Maintenance)**

#### **1. Description of the Works**

- 1.1 The Supplier shall provide Planned Preventative Maintenance intervention activities to Bridges & Structures assets as detailed below. The Supplier shall ensure that all works are carried out in accordance with London Underground and National Standards as well as Statutory Obligations required by Law which are current throughout the life of the Contract.
- 1.2 The Supplier shall research and identify innovative products, methods of working and overall health, safety and environmental practices to ensure the continual improvement of this scope. The Supplier is encouraged to engage with the Company to arrange trial innovations for any such improvements, and work in accordance with good industry practice and best practice.
- 1.3 The Supplier shall be responsible for delivering all the requirements of this scope, including but not limited to, the supply of all labour, overheads, consumables, materials, access equipment and any plant necessary to undertake the required tasks.

#### **2. Scope of Services**

- 2.1 The Supplier shall undertake Planned Preventative Maintenance intervention activities to Bridges & Structures assets as identified by the AP-JNP.
- 2.2 The 'Bridges & Structures' Portfolio of assets for AP-JNP consists of the following asset groups and associated volumes.
  - Bridges & Structures – over 4,000 individual assets with 1,972 'major structures'
  - Deep Tube Tunnels – over 219km of Tunnel Assets
  - Earth Structures – 80km of Earth Structures

NOTE: Full details of the JNP asset base are contained within the attached Annex A.

- 2.3 The types of interventions covered under Planned Preventative Maintenance scope are summarised below.
  - Vegetation Clearance from Structures
  - Earth Structures Transect Clearance
  - Guttering & Downpipe Repairs, Alterations and Clearing
  - Bridge Drainage Maintenance (vegetation, weep holes, minor repairs, etc.)
  - Fabrication & Installation of Asset ID Plates
  - Installation of Various Monitoring Regimes to Assess Asset Performance & Condition.

- Proactive Seepage Surveys on Civils Structures (tunnels, bridges, disused areas)

### **3. Planned Preventative Services**

- 3.1 The Supplier is to provide a detailed and compliant programme to the Company detailing the critical path(s) and dependencies to deliver the contracted requirements.
- 3.2 The Supplier shall include in all cases, where appropriate, hold points for delivery for compliant standards of workmanship.
- 3.3 It is expressly required that Suppliers visit the sites designated for repair prior to submitting their tender.
- 3.4 All specifications and instructions for the required 'Planned Preventative' scope activities will be defined by the Company and included within the 'scope document' included within the tender pack.
- 3.5 For each specific scope/brief, the Supplier must have in place prior to any works commencing, an approved and compliant; Method Statement, Site Risk Assessment and any other assurance documents that may apply to the works, for example, in some cases, an approved 'Temporary Works Design' may be required for enabling works to commence.
- 3.6 Dependant on the nature of the works, the Supplier is responsible to make adequate and appropriate checks throughout the works for any environmental requirements such as; noise, hazardous waste transfer, etc. All environmental allowances must be assessed and appropriately allowed for by the Supplier to ensure compliance with legislation and standards throughout.
- 3.7 Any deviation(s) to the contracted scope of work(s) need to be agreed with the Company prior to any changes taking place. Any deviation(s) need to be identified by the Supplier and formally communicated with the Company through the 'contract variation processes. The variation submitted by the Supplier needs to be compliant and include all relevant details (costs, programme impacts, etc.) to enable the Company to decide and advise on the next steps.
- 3.8 Shift reporting by the Supplier needs to be compliant with the agreed format presented by the Company. The shift report should identify the progress made, resources utilised during the shift and any issues and/or concerns identified during the shift. Shift reporting needs to be received within the timescales agreed with the Company and no later than 12Hrs of the shift being completed.
- 3.9 For each shift, the appropriate quality, assurance and inspection records must be taken by the Supplier and kept as a record of the quality and workmanship recorded on site and for each shift. The specific format of these records must be agreed with the Company at the start up meeting pre-works.
- 3.10 On completion of the works, the Supplier shall provide the Company with a set of digital, date stamped images of the asset and associated works that are taken; before, during and after every key element of the corrective maintenance interventions and include this along with a written report within the Handover Document and/or completion certificate.