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architecture : engineering : building consultancy



**SCHEDULE OF WORKS
BRIDGE MAINTENANCE WORKS**

for **NOTTINGHAM & SHERWOOD DISTRICT COUNCIL**

at **JUBILEE BRIDGE, NEWARK ON TRENT**

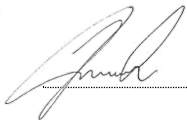
JOB NO: 12543-WMS-ZZ-ZZ-SH-B-10002-D2-P2

DATE: OCTOBER 2022

Contract: Jubilee Bridge, Newark on Trent

Document Title: Schedule of Works - Bridge Maintenance Works

Our Ref: 12543

Prepared by:  Jeff Cook **Date:** December 2022

RECORD OF AMENDMENTS TO DOCUMENT

Ref	Description	Date
P2	Amended to reflect client comments.	13/12/2022

Verified by:  **Date:** 14th December 2022

SCHEDULE OF WORK

**Jubilee Bridge
Newark on Trent**

1.00	<u>Liaison & Permissions</u>	
1.01	The contractor should allow for all costs / time (including any required applications / licences / closures etc.) associated with liaising with The Canal & River Trust, The Environment Agency, The Ramblers' Association and all other stakeholder agencies as required to undertake the works.	
2.00	<u>Access & Security</u>	
2.01	Allow here for hoarding/fencing required to prevent unauthorised entry to the site, working areas and any scaffold.	
2.02	Allow for restricted access to the site and a small site compound on site.	
	<i>N.B.: N&SDC do not own either the land on which the bridge sits on or the land which accesses the bridge location. Proposed site & location of site compound to be submitted with tender.</i>	
2.03	Allow to cut down & remove all grass, weeds, elders, brambles & overgrowth etc. to allow for all proposed works to be undertaken. All waste to be removed and safely disposed of off-site.	
2.04	Allow here for all access requirements as required for the safe execution of the works. This may include mansafe anchoring, temporary edge protection, scaffold & fall arrest netting for the duration of the works. This should include all elements required to execute the works in compliance with site specific considered RAMS which must be submitted along with the contractor's tender for consideration in the tender analysis. Full completion of a suitable Construction Phase H&S Plan for the works, incorporating the RAMS as submitted & agreed at tender stage, will subsequently be provided by the successful contractor in the project lead-in period.	
2.05	Allow here for specific rope access cost as required to carry out preparation & decoration of bridge towers/pylons [allowed for elsewhere].	

3.00	<u>Existing Lighting Removal</u>
3.01	To existing pedestrian deck lighting on approach ramps to East & West, remove all existing associated electrical supplies, conduit/trunking, deck light unit containment boxings and light units themselves, including all associated fixings – Estimated 14no. light units & containment boxings with circa 100m cable & trunking [Ph#01-02] . Any redundant brackets/mountings should be neatly cut/ground off prior to redecoration works. Incoming supply should be safely terminated at consumer unit/isolator/distribution board in Eastern service room beneath walkway [Ph#03] .
3.02	To hard surfacing over main bridge span, squarely neat cut around and remove existing light units, then fill holes and finish with suitable wearing tarmac, neatly bitumen sealed to margins. Remove all existing associated electrical supplies, conduit/trunking and deck light unit containment boxings, including all associated fixings – Estimated 8no. light units & containment boxings with circa 55m cable & trunking [Ph#04-05] . Any redundant brackets/mountings should be neatly cut/ground off prior to redecoration works. Incoming supply should be safely terminated at consumer unit/isolator/distribution board in Eastern service room beneath walkway.
3.03	To existing pedestrian deck balustrade obelisk light units [4No.], remove all in their entirety, including existing associated electrical supplies, conduit/trunking, containment boxings and light units themselves, including all associated fixings [Ph#06-07] . Any redundant brackets/mountings should be neatly cut/ground off prior to redecoration works. Incoming supply should be safely terminated at consumer unit/isolator/distribution board in Eastern service room beneath walkway.
3.04	To hard surfacing at end of approach ramp to Eastern side, squarely neat cut around and remove 7no. existing light units, cut off and terminate associated electrical supplies, then fill holes and finish with suitable wearing tarmac, neatly bitumen sealed to margins [Ph#08-09] .
3.05	To tactile paving at end of approach ramp to Eastern side, take-up all paving units, remove existing light unit, cut off and terminate associated electrical supply, infill voids, then re-lay pavers to a uniform level to the adjacent hard surfacing, with all pavers oriented & aligned correctly. Allow to supply matched paving units where light unit removed [Ph#10] .
3.06	Remove CCTV installation completely, including all redundant containment and cabling.

4.00**Balustrade Panels**

4.01

To all existing galvanised balustrade perforated panels where stainless steel fixings are missing from galvanised tab attachment locations, one existing fixing should be removed in order that a sufficient number of identical replacement fixings can be fabricated to replace all those that are missing **[Ph#11]**. In addition, a further 20no. fixings should be supplied to the client as spares, along with 4no. specific tools for the correct tightening of the fixings. All new fixings should be manufactured from 316L A4 Austenitic stainless steel to match existing. Estimated number of missing fixings is circa:

- East lower approach ramp – 12no.
- East upper approach ramp – 4no.
- Bridge Main Span – 6no.
- West approach ramp – 19no.

Total estimated requirement including spares is 61no.

5.00**Handrails & Balustrade Rails**

5.01

To 2no handrail supports [1no at each side] of Eastern approach ramp where hard surfacing meets existing timber deck boards, break out friable concrete packing beneath handrail base plates & reinstate with suitable epoxy resin mortar, neatly benched to interface **[Ph#12]**.

5.02

Where balustrade obelisk light units are removed, contractor is to fabricate & fix matched perforated hot-dip galvanised mild steel panel infills, tab & weld connected to adjacent balustrade member, leaving no edge gaps around greater than those existing around adjacent perforated panels. Actual design of infills by approval. All damage to existing galvanised finishes due to weld attachments to be sealed with zinc rich self-healing cold galvanising paint, applied to manufacturer's instructions **[Ph#06-07]**.

5.03

To all existing galvanised balustrade upper rails where bent/distorted, allow to straighten in-situ [circa 8no. sections across all areas] **[Ph#13]**.

5.04

To all existing galvanised balustrade perforated panels, rails & supports in their entirety, including handrails posts and base plates to hard surfaced areas of approaches, clean thoroughly & remove graffiti.

5.05

To all existing galvanised balustrade perforated panels, rails & supports in their entirety, including handrails posts and base plates to hard surfaced areas of approaches, prepare all localised areas of rust, neatly mask around and coat with zinc rich self-healing cold galvanising paint, applied to manufacturer's instructions **[e.g.Ph#14]**.

To Collection

£

5.06	To all existing galvanised balustrade perforated panels, rails & supports in their entirety, allow to remove any padlocks, cable ties etc. fixed by the public and dispose of.
6.00	<u>Drainage</u>
6.01	Existing 2no. ACO channel drains to end of approach ramp East side require removal of gratings, full clearance of obstructions/silting [including any associated discharge pipe runs to soak away or mains branch], re-bedding of channel units to a uniform level to the adjacent hard surfacing [where required] and replacement of any damaged gratings. All gratings to be bitumen coated prior to placement/refixing [Ph#15-16] .
7.00	<u>Decoration</u>
7.01	To all currently paint finished steel bridge components in their entirety [including all span and approach members and supports, cable stays and towers/pylons], allow to prepare & redecorate using a suitable paint system to overcoat the existing. The actual paint system to be applied should encompass preparation of visibly rusted localised areas by a power-tool or blast cleaning method to a minimum surface preparation grade of St2 to ISO 8501-1: 2007 and general thorough cleaning & abrasion [where required to form a suitable key] of all general areas followed by a suitable applied paint system thereafter such as Akzo Nobel 'International', PPG Sigma, Jotun Marine or similar by approval. Actual system to be proposed by contractor and will be required to provide a minimum expected life cycle to first maintenance of 10 years.
7.02	The concrete of the walkway return to the Eastern approach ramp requires preparation and painting with 2no. coats KEIM Soldalit® exterior paint or similar by approval, all applied in compliance with manufacturer's recommendations [Ph#17] .
7.03	The concrete of the walkway return to the Eastern approach ramp requires preparation and painting with Co-Var WB101 Anti-Graffiti Coating or similar by approval. [Additional option]
7.04	The concrete of the towers/pylons base to the West bank requires preparation and painting with 2no. coats KEIM Soldalit® exterior paint or similar by approval, all applied in compliance with manufacturer's recommendations [Ph#18] .
7.05	The concrete of the towers/pylons base to the West bank requires preparation and painting with Co-Var WB101 Anti-Graffiti Coating or similar by approval. [Additional option]

8.00

Approach Ramps Deck Replacement

Contractor is to price all three options below & carry most expensive option only to collection page.

8.01

OPTION 1

Subject to structural loading confirmation, take up all existing timber decking boards & replace timber with additional steel bearers and steel deck plates finished with Bimagrip or similar thin surfacing by approval.

8.02

OPTION 2

Take up all existing timber decking boards & bearers to all approach ramps & replace with UK oak deck boards inlaid with 'Hi Grip Excel' factory applied non slip treatment fixed to UK oak bearers, pre-drilled, countersunk & sized as existing & fixed using A4 countersunk stainless steel fixings, again sized to match those existing. Circa 100m x 3m [total ramp length by width].

8.03

OPTION 3

Subject to structural loading confirmation, take up all existing timber decking boards & replace timber with steel trays with mastic asphalt infills.

9.00

Electrical Reinstatement

9.01

Carry out works as required to address C2 & C3 classification code items as identified in accompanying Viking Electrical Ltd. 'Electrical Installation Condition Report Ref: J5134 Jubilee Bridge'.

9.02

Replace the luminaires on the 2no lighting columns with new units to the same rating and test & certify following installation.

9.03

Renew any retained corroded containment with suitable new galvanised containment, including new galvanised containment where existing cables are retained and are currently clipped only. All new containment should be securely fixed to structural steel/substrates and suitably 'vandal-proof'. Contractor to clarify containment allowed for in tender submission.

To Collection

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9.04	Remove existing door & frame to Eastern service room beneath approach ramp & replace with circa. 910mm[w] x 1460mm[h] zinc coated, galvanised [to BS EN ISO 1461:2009 with a coating thickness commensurate with the thickness of the door steel construction] and stainless steel marine-grade steel security door with four point locking system & 150mm standard frame finished in RAL 9005 Jet Black Polyester Powder-Coat from N.G.F Industrial Doors, Unit 11 Allerton Bywater Networkcentre, Letchmire Road, Allerton Bywater, West Yorkshire, WF10 2DB or similar by approval. Actual size by contractor survey.		
10.00	<u>Completion</u>		
10.01	Contractor to allow for the reinstatement of any grassed/landscaped areas that have become damaged as a result of the works.		
10.02	Remove all accumulated debris and discarded items from Eastern service room beneath approach ramp and dispose of.		
10.03	Clear away all litter, debris and other rubbish which has accumulated during the contract period.		
11.00	<u>Certification</u>		
11.01	In order to obtain 'Practical Completion' the Principal Contractor must allow for all costs and associated works to obtain a 6-year Principal Inspection Certificate for a bridge from Via (East Midlands) / Nottinghamshire County Council before the site is handed back to the client and before Practical Completion can be formally agreed. The current inspection certificate expires on the 29th May 2023 and the current report is attached. (Once the bridge is closed to the public and works commence, it cannot reopen until the client is in receipt of a 6-year Principal Inspection Certificate).		

Collection

	Preliminaries [including welfare]			
	Page 4			
	Page 5			
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	Page 8			
	Page 9			
		Sub Total	£	_____
		Contingency @ 10%	£	_____
		Total	£	_____

PHOTOGRAPHS



Photo 01



Photo 02



Photo 03

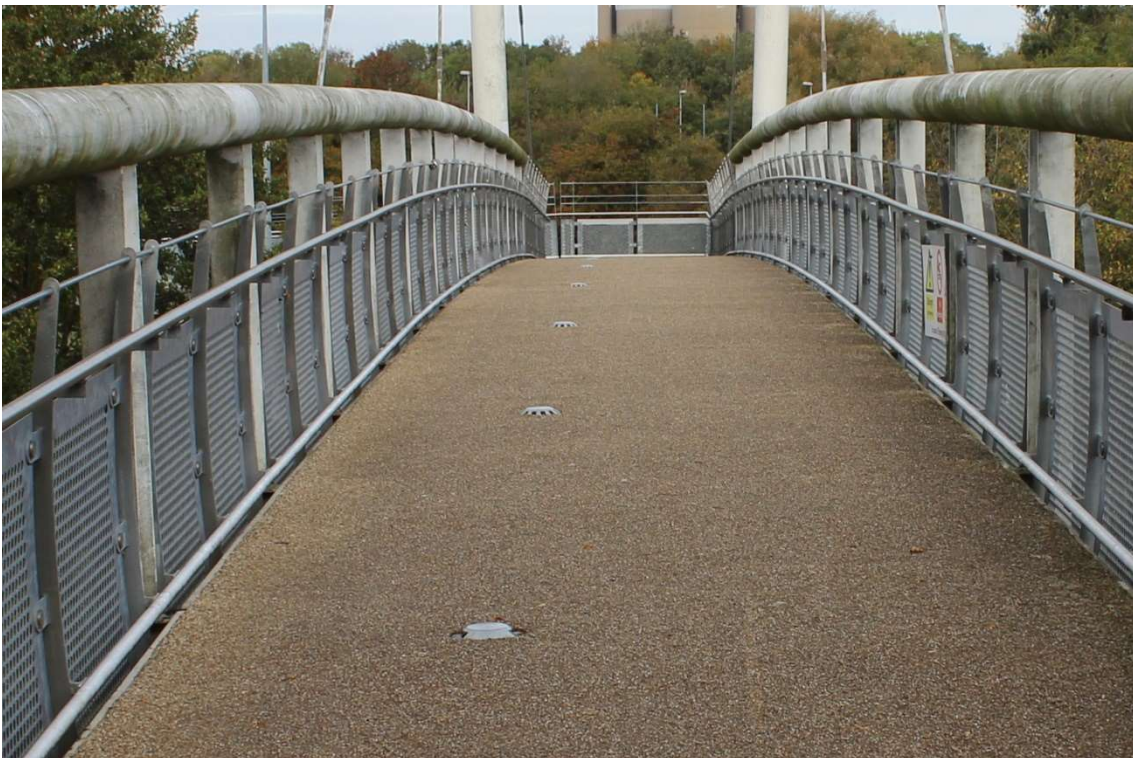


Photo 04



Photo 05



Photo 06



Photo 07



Photo 08



Photo 09



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18