Appendix 7.19: Bat Assessment of Viaduct

BATS IN BRIDGES RECORDING FORM

ATKINS

LOCATION	Hampstead Heath	**STRUCTURE NAME**	Viaduct
DATE OF SURVEY	28.03.14	**PHOTOGRAPH**	Attached
SURVEYORS	R. Chilcott	**WEATHER CONDITIONS**	Overcast, 90% cloud cover, 15°C

SUMMARY OF FINDINGS: ACTION FOR ENGINEERS *Tick appropriate box*

KNOWN ROOST *(contact ecologist before any work; licence may be needed)*	
SURVEY BEFORE WORKS *(contact ecologist to arrange this)* ***Please make a note of special equipment required!***	X
RETAIN CREVICES IN DIAGRAM *(Contact Ecologist if crevices are affected)*	X
PROCEED WITH WORKS *(Survey before works not required)*	
AVOID WORKS DURING BIRD NESTING SEASON	

Dynamic risk assessment: update to written Risk Assessment needed? Y / N

MAKE SURE YOU CHECK THE FOLLOWING *(please tick when checked)*

Crevices in stonework where mortar is missing or in damaged areas X	Gaps between slabs or beams in spans X	Widening joints X	Drainage holes X	Stone or ceramic drains X	Expansion joints and constructional joints in concrete bridges X

STRUCTURE DETAILS *(Tick / circle choice)*

TYPE	overbridge	underbridge	culvert	footbridge	subway	viaduct	tunnel	service tunnel
OVER	fast watercourse*	slow watercourse*		dry watercourse		footpath		track
	road	canal	railway	disused railway		Other Pond		
Are there any drain pipes / conduits on the abutments?	Y / N	If Yes, please describe	Height (from the ground): Diameter of pipe: Condition (damp/dry):					
Has an endoscopic inspection has been carried out of the drain pipe/conduit?	Y / N							

*** Please write if width of watercourse < or > 3 m**

	concrete	wood	steel	brick	stone	other	
SPAN				X			
ABUTMENT					X		
CONSTRUCTION *(circle choice)*	arch	cast	beam	slab	tunnel	pipe	other

HABITAT *(within approx. 100m. radius of structure. Tick where applicable, write **D** where dominant).*

broadleaved trees/woodland	D	arable	
conifer trees/woodland		hedges	
scrub		walls	
amenity grassland	X	buildings	
improved grassland		urban	
unimproved grassland		allotments/gardens	
rough grassland	X	bog/wet ground	
fast-flowing water		slow-flowing water/ponds/lake	

INSPECTION NOTES

Equipment used during inspection: Boat, torches, binocular, camera

Was a thorough inspection carried out: **Y / N**

If No, state reason and/or limitations (partial access, too high to fully inspect features etc) =

The inspection was carried out from a boat at the ground level without the ability to inspect the individual crevices and missing bricks closely.

Structure type: Arch *(choose from Figs 1-12 as shown below)*

Structure appears in good condition: **Y / N** *(circle as appropriate)*

Structure shows signs of disrepair (missing mortar / cracks etc): **Y / N** *(circle as appropriate)*

If Yes, specify = Occasional areas of missing brickwork under the arches themselves. Some small areas of mortar missing however, these don't appear to be substantial enough to support roosting bats.

Ivy cover: **Y / N** *(circle as appropriate)*

If Yes, rate coverage (whereby 0% = no cover / 100% full cover) = 10% restricted to the abutments

BAT POTENTIAL DETAILS *(circle choice)*

0 = no potential	1 = crevices possibly of use to bats	2 = ideal crevices	3= evidence of bats

(any crevice greater than 100mm deep and sheltered from the elements)

EVIDENCE details *(circle choice)*

droppings	bats visible	staining/scratches/worn stonework	bats audible	bat-fly pupae

ANY FURTHER COMMENTS **(e.g. evidence of non-bat species such as birds etc) / sketch**

Some small crevices on the stonework on the abutments however, these are open to the elements and not considered suitable to support roosting bats. Gaps in the brickworks were recorded under the second arch from the east and the central arch with a single gap recorded in the brickwork under the western most arch.

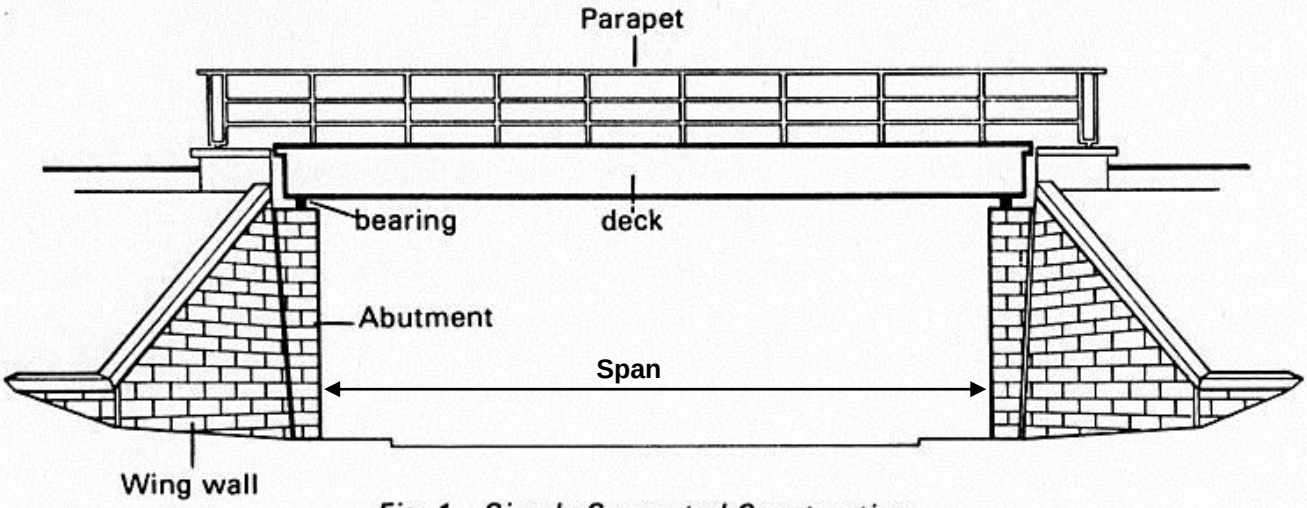

Fig. 1 Simply Supported Construction

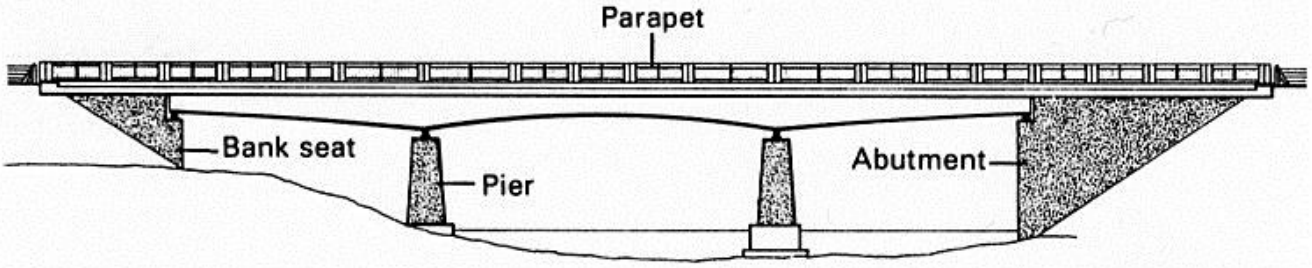

Fig. 2 Continuous Construction

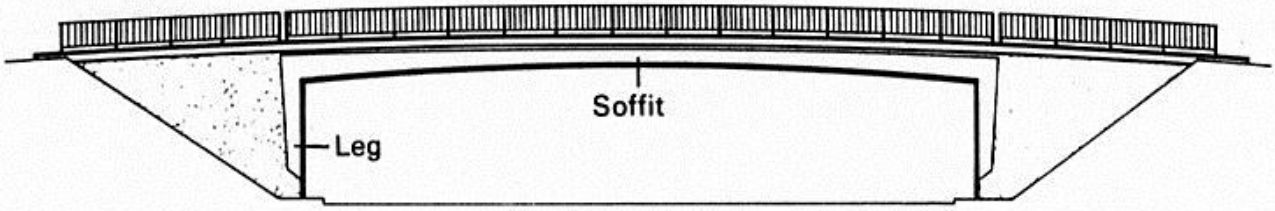

Fig. 3 Portal Frame

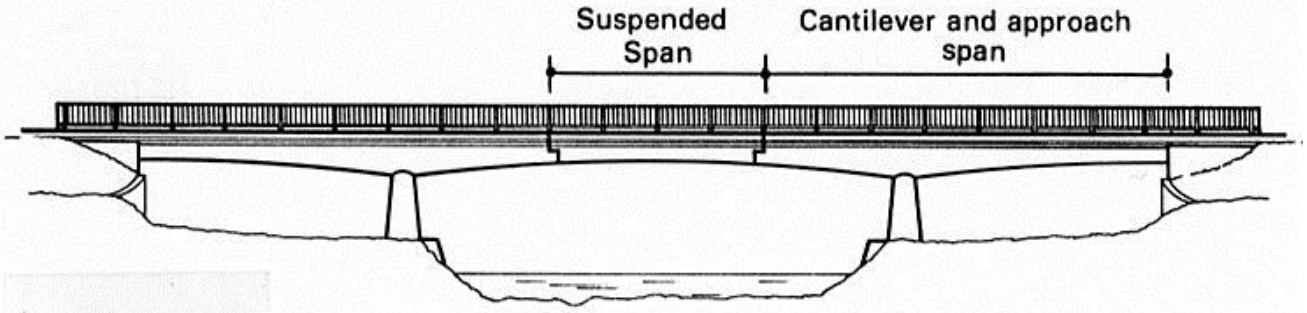

Fig. 4 Cantilever and Suspended Span

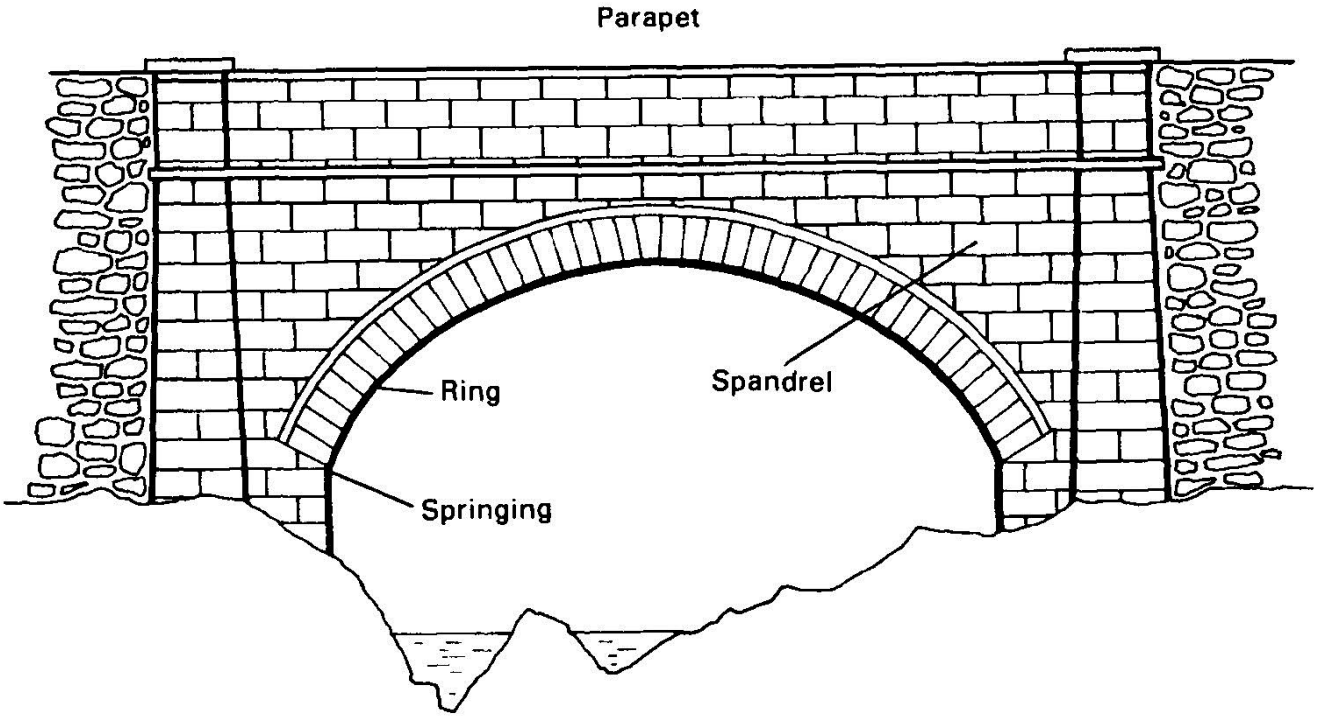

Fig. 5 Arch

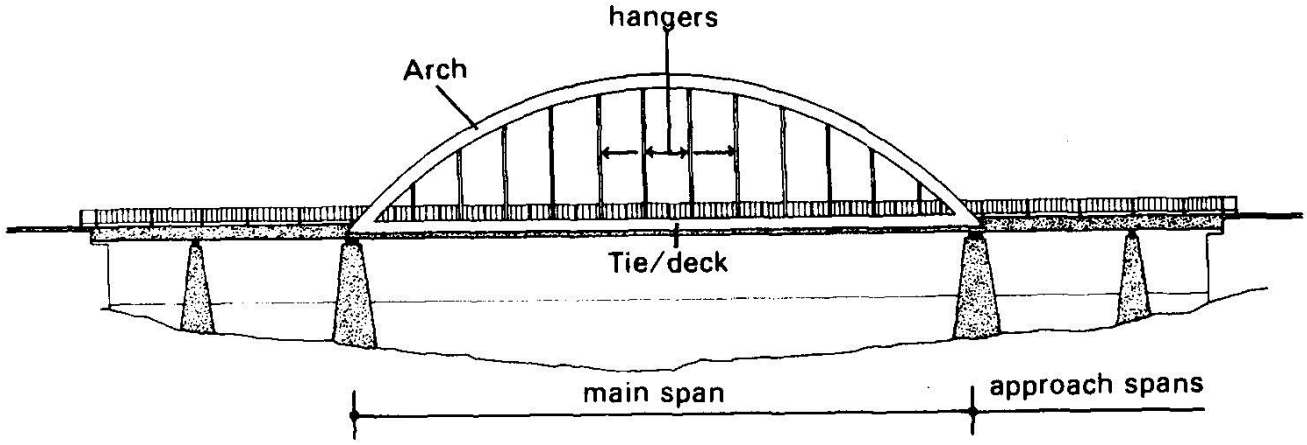

Fig. 6 Tied Arch

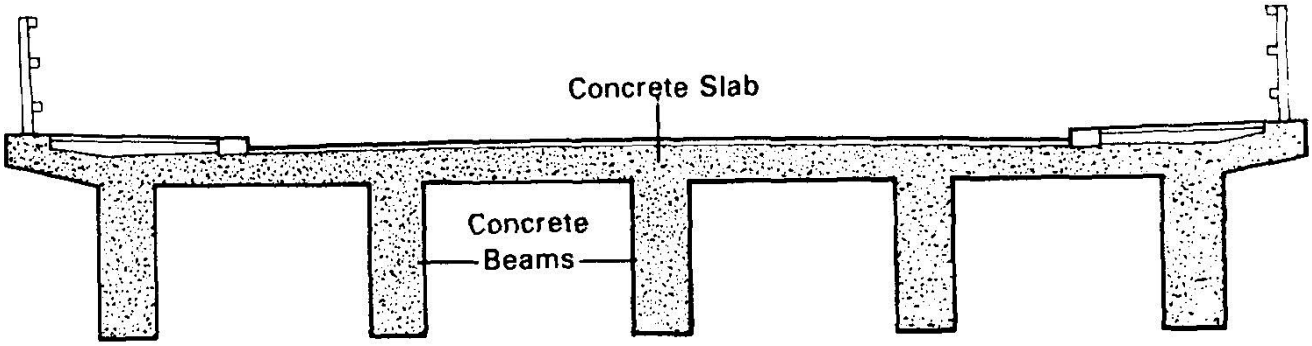

Fig. 7 Beam and Slab Construction

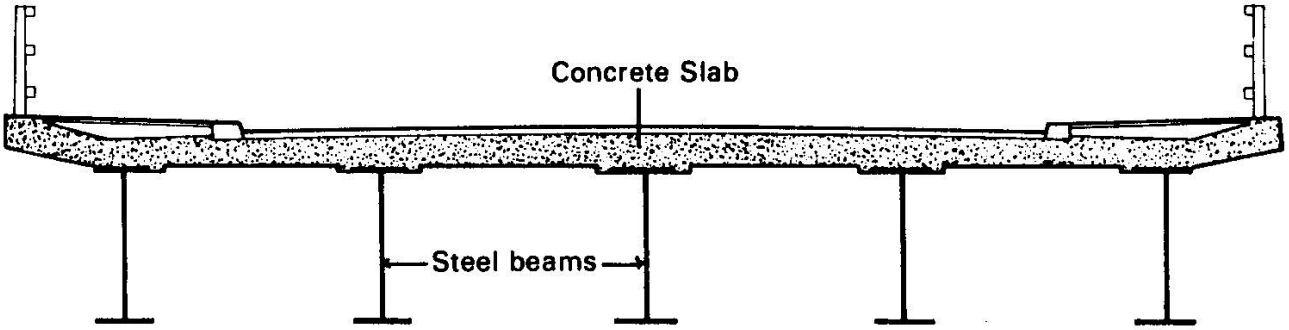

Fig. 8 Composite Construction

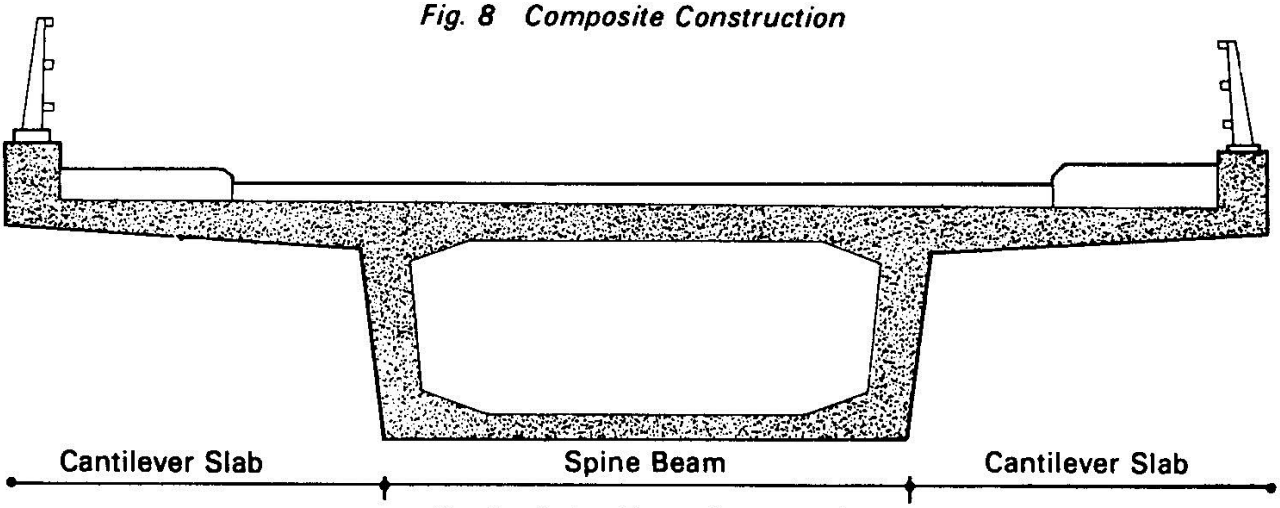

Fig. 9 Spine Beam Construction

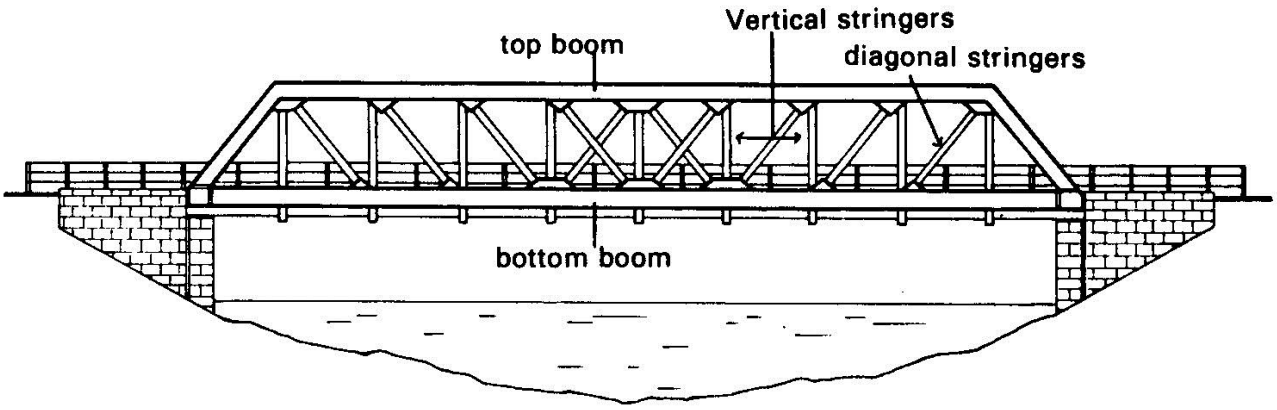

Fig. 10 Truss Bridge

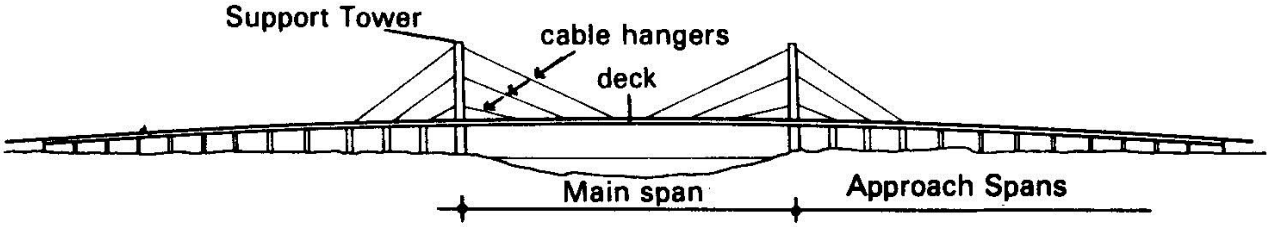

Fig. 11 Cable Stayed

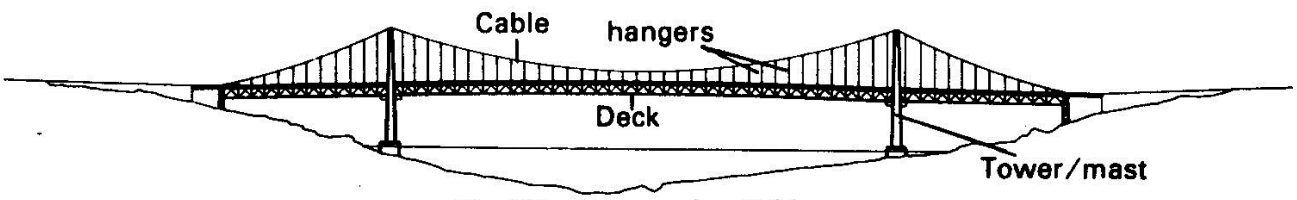

Fig. 12 Suspension Bridge