Northumberland County Council

Environment and Design Team
Development Services

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Date:	9th May 2024. Minor amendments 14/05/2024.

Repairs to Kennels Bridge, Grasslees, Hepple.
Updating Ecological Walkover.

1. Introduction

An updating ecological walkover survey was requested by bridges engineers to support the submission of a planning application for improvement works of the area around the Kennels bridge, at Grasslees Cottage near Hepple in the Coquet Valley. The single track road bridge links Grasslees and Harehaugh to Holystone and is at grid reference NY 97336 99684 (bordering.standard.incomes). The bridge crosses the Grasslees Burn, a tributary of the River Coquet.

An Extended Phase 1 Survey Report and Protected Species Report were carried out by Total Ecology in 2018 and 2019. An updating walkover survey was undertaken by Ann Deary Francis MCIEEM, NCC Ecologist in June 2022.

According to CIEEM Advice Note on the Lifespan of Ecological Reports & Surveys (2019) reports should be updated where they are within 18 months to 3 years old. An additional updating walkover survey took place on 6th May 2024 by Ann Deary Francis.

The Total Ecology Reports are also submitted in support of the application.

2. Assessment

2.1 Proposed Works

A crash deck will be installed below the bridge which will include temporary access into the watercourse. This is pre-assembled to minimise the amount of disturbance to the watercourse during installation. Some disturbance of large stones under the bridge is required to install the crash deck. The crash deck will be covered with a membrane to collect any debris from the break-out and construction. An example of a similar structure is shown in Figure 1.

Hessian mat and straw bale silt traps will be placed in the watercourse to control siltation but passage for fish will be maintained at all times.

The existing concrete bridge deck will be broken out and the existing steel beams will be removed.

The bridge deck will be replaced with pre-cast beams and a topping slab. Piles will be placed behind the existing abutments to strengthen the bridge. These will be placed within the highway.

Minimal impact on the existing abutments is planned but where there are temporary impacts the masonry will be removed, stored and replaced in *situ*. There is no requirement to completely repair gaps and crevices in the existing masonry.

All works will take place from the existing track except for the placement of the crash deck.

Construction compounds will be sited on the existing highway, with minimal incursion onto mown modified grassland verges. All access and construction areas will be mown or cut back prior to placement of track mats.

The work is due to start in early September 2024 and will take 12 weeks.

Figure 1. Example of crash deck

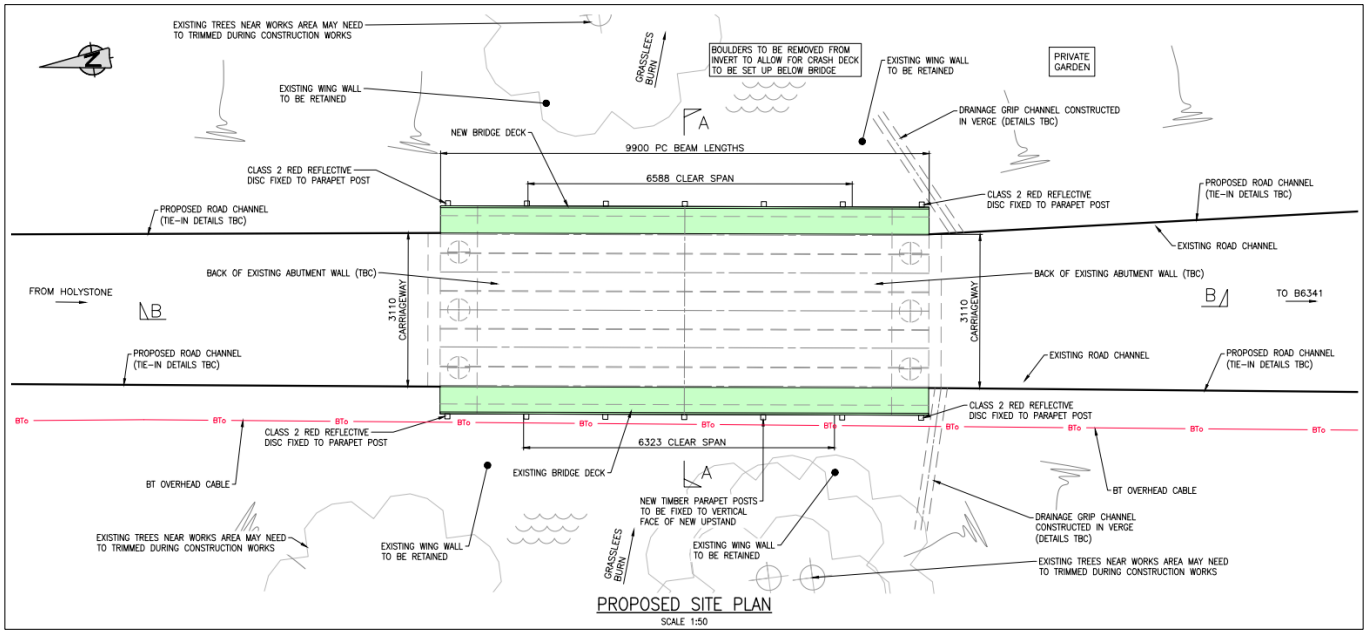

Figure 2. Proposed Site Plan (aerial view)

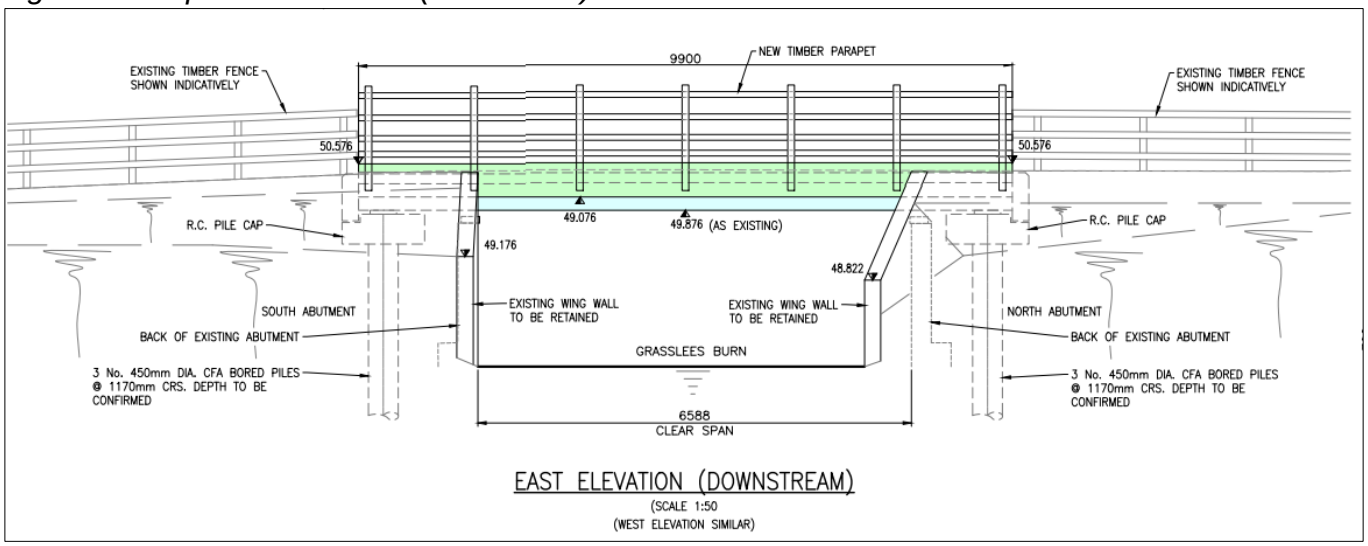

Figure 3. Proposed Elevation

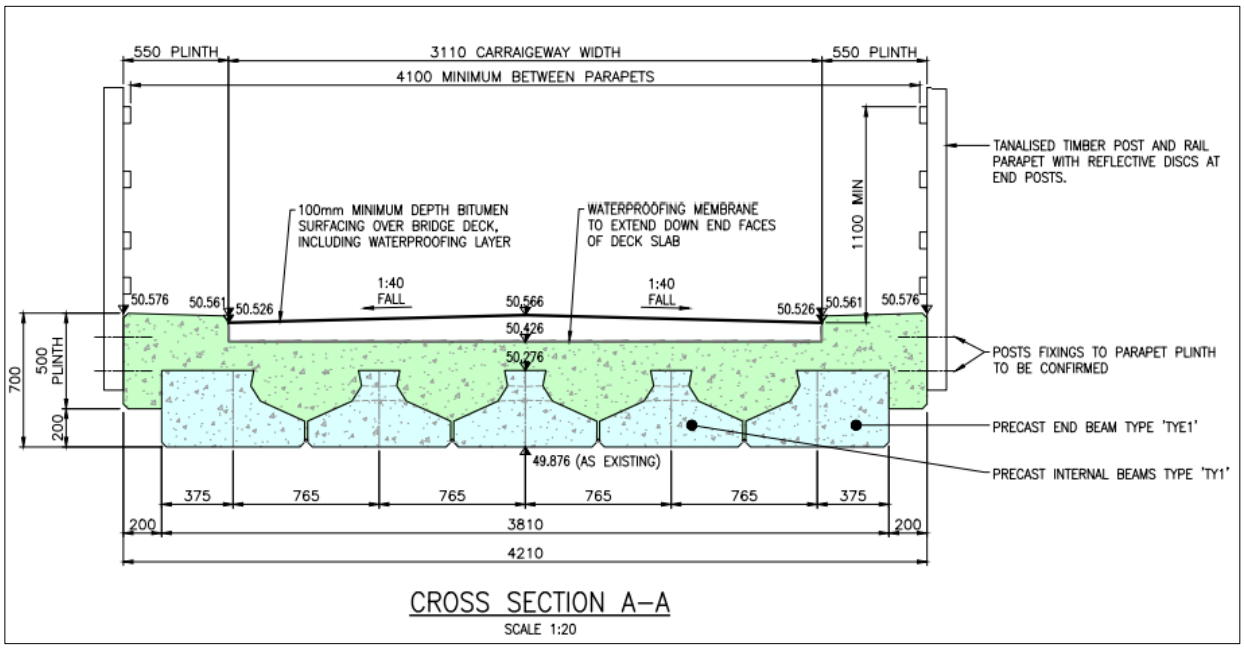

Figure 4. Proposed Cross Sections

2.2 Walkover Survey

The updating walkover survey took place on Monday 6th May 2024 between 14.00 and 15:30, and was carried out by Ann Deary Francis MCIEEM, an experienced ecologist with over ten years of experience of similar surveys. The surveyor holds a white clawed crayfish survey licence (CL11, 2020) a Class 2 Bat Survey Licence (CL18, 2014) and is a registered consultant for the Bat Mitigation Class Licence (CL21, 2021 RC232). She holds a trainee ringer's permit from BTO and has undertaken ringing training for several years. The surveyor has undertaken advanced training in botany and for bats, otter, badger, white clawed crayfish and birds and meets the relevant CIEEM competencies for species and habitat survey.

The weather conditions were good, temperature 11^{o}C, with no rain although it was slightly overcast. The water level was higher than on previous surveys after a period of heavy rain.

The bridge itself, the track either side of the bridge and an area 100m up and downstream was surveyed.

The walkover survey covered the same area as the 2022 survey and confirmed that the findings and recommendations of that survey remain valid. The findings of the 2018 and 2019 surveys are still also considered valid. There have been no significant changes in the biological records centre data since 2019, although it is noted that in 2019 a local walker recorded water vole approximately 7km downstream (reported to ERIC by the surveyor). There are sporadic historic records of white clawed crayfish on the Coquet (with one at Hepple from 1997) and a single record of a single signal crayfish downstream at Felton in recent years.

No evidence of white clawed crayfish was noted in 2019, 2022 or 2024. The water in 2024 was notably coloured by peat run-off.

The updating walkover survey took place within the bird nesting period but no evidence of nesting birds was noted. Dipper are common in the Coquet catchment but the underside of the deck of the bridge lacks suitable ledges for nesting.

Torch inspection of the cracks in the wingwalls and masonry abutments are large and draughty and are not considered likely to support roosting bats.

No signs of otter were noted, although the high water level would have removed any spraints or footprints. Otter are frequently recorded and assumed to be present in the area of the works. No holts or lying up places were noted.

No signs of water vole were recorded.

Trees around the bridge (alder, sycamore and hazel) which will be cut back only where required and to the minimum amount required. No impacts on potential bat roost features are likely.

The highway verge is closely mown and is characteristic of other neutral grassland (UK Hab g3c), dominated by perennial ryegrass, with frequent ribwort plantain, white clover and dandelion species, occasional yarrow and rarely occurring field wood rush. Good quality semi-improved grassland is mapped in grazing fields to the east and west of the road.

As the works will take place in September and the verge will be mown (and cuttings removed) and protected by trackmats no impact on grassland habitats is predicted. This will be monitored

closely and if restoration is required this will be by over-sowing of a local grassland mix from Coquetdale.

2.3 Site Photographs (May 2024)

Figure 5. Northern approach to bridge

Figure 6. bridge deck looking downstream.

Figure 7. bridge deck looking upstream

Figure 8. Underside of bridge showing coloured water and stoney substrate.

Figure 9. underside of bridge deck

Figure 10. cracks in existing abutments and wingwalls (these will only be minimally impacted and gaps will be left in the masonry)

Figure 11 view of underside of bridge from downstream

Figure 12 verge along highway – other neutral grassland

2.4 Designated Sites

The River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (SSSI) begins 175m downstream of the bridge and there are functional links to the SSSI for the interest features brook lamprey, salmon, sea trout and otter. These species are assumed to be frequently present in the vicinity of the works.

There is no suitable spawning substrate in the vicinity of the works with the stream bed being characterised by large stones.

Minimal in-river working is planned, at the beginning of works with the installation of the crash deck. This will be assembled as much as possible prior to installation to minimise disruption in the watercourse.

The installation of the crash deck will be supervised by the Ecological Clerk of Works (EOW) and closely monitored. Should any issues with fish passage be noted the ECOW will notify the Environment Agency and seek advice on remediation measures or any requirement for fish rescue.

The in-river works (crash deck) may be partly within the fish migratory period which is considered to begin in late September (although the requirement for in-river working should be limited to September only).

Passage through the site for fish will be maintained at all times. The crash deck will be removed as soon as the demolition works are completed to limit incursion into the migratory period.

Standard precautionary measures to avoid pollution during construction will be used and a Method Statement has been prepared.

2.5 Biodiversity Net Gain

The Environment Act 2021 requires all new developments to provide a measurable 10% biodiversity net gain, with this coming into effect for all applications from April 2024.

There are exemptions for some kinds of development Biodiversity net gain: exempt developments - GOV.UK (www.gov.uk).

This development is considered to be exempt for the following: the development impacts (decreases the biodiversity value) of less than 25 square metres of onside habitat.

Vegetation clearance will be limited to that required purely to secure access to the bridge deck and will be restricted to minimal trimming of overhanging trees.

The use of track mats, the timing of the works in September and the short-term nature of the project ensures that the biodiversity value of the habitats in the areas to be used for construction or storage compounds will not be decreased.

The project has been designed to minimise the loss of natural habitats and limit disturbance to habitats and species.

The works are taking place in the riparian zone of a non-priority river (‘other rivers and streams) and the watercourse Biodiversity Net Gain metric would be required if the project were not

exempt. The Metric User Guide is clear that established footpaths or river crossings are exempt if recorded in the baseline. There is not considered to be any encroachment in the 10m riparian zone above *de minimis*.

Recommendations

It is noted that the recommendations of the previous reports have been incorporated into the Method Statement Method Statement Of C180 Swindon Kennels Bridge Work Proposals For FCERM LDC Application (NCC, 10/05/2024) which will function as the Construction Environmental Management Plan.

These are summarised here.

1. An Ecological Clerk of Works (ECOW) will be appointed to carry out pre-start checks and deliver a toolbox talk to operatives working on site.
2. The ECOW will supervise the periods of in-river working when silt prevention measures and the crash deck are installed and removed.
3. Fish passage will be maintained at all times.
4. The ECOW will supervise construction compound set up including placement of track mats on verges.
5. The ECOW will check masonry with endoscope prior to any works.
6. Pollution controls including membrane over crash deck, straw bale and hessian silt traps, fuelling areas and training in the use of spill kits.
7. A dipper nest box will be affixed to the underside of the deck after completion.