Planning Statement in support of Planning Application

Explanation of the need for the development, the impact of permitting/refusing it and benefit to local communities/economy.

Swindon Kennels Bridge carries the C180 single carriageway over Grasslees Burn. The bridge provides essential access for the local farm business and residents and provides direct link to the B6431 close by, whereas should the bridge be inoperable this would lead to a significant diversion route. Currently Swindon Kennels has been identified as a substandard structure with an assessed live load capacity of 17 tonnes. Recently it has been reported the route over the bridge was still used by logging companies despite being told that it will damage the bridge, so there is a real possibility that the condition of the bridge becoming worse despite the current weight restriction.

General summary from the Interim Measure Reports starting from Sep 1994 to July 2022, is that the structure is in fair condition but has faced steady decline throughout with no significant changes. Although, from other archive information including diving inspection carried out in May 2019, there is evidence of defects on the structure which could have implications for the overall structural integrity of the structure and further rate the parts of the substructure in poor condition. [See Table 1 below]

Table 1: Swindon Kennel defects

	Figure 1a - View of longitudinal crack to downstand beam adjacent west elevation
	Figure 1b - Possible rotation of south wing walls

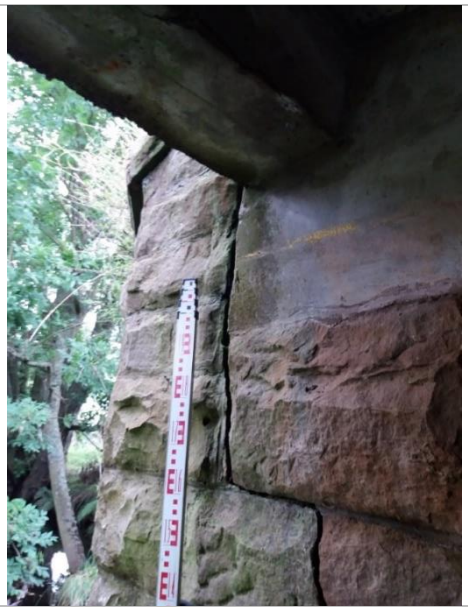

Figure 1c - Vertical step fracture at north abutment

[Diving Inspection report is enclosed in this Application.]

Differential settlement of wingwalls and abutments were first recorded as far back in 1971 and changes in crack widths observed throughout the interim measures period indicate movement of substructures. Ground investigations have revealed zones of weak soil with low SPT values which the structure is likely founded on.

The most recent 2020 GI identified:

- Abutments and wing wall gaps unchanged except north west wing wall which has increased 2mm to 14mm at top;
- Spalling to east plinth on-going in 5 no. locations, all of which have a little loose concrete;
- Carriageway has slight loss of surface dressing and transverse cracking at abutments;
- Gullies becoming overgrown.

The proposed works consists of full deck replacement which will improve the assessed capacity of the bridge and ensure that the structure can accommodate the required traffic loadings and continue to provide key access to the local network. By designing it to the Eurocodes standards the new structure will gain a 120-year design life, eliminating the risk of the structure reaching expired design life where records indicate that the existing bridge life exceeds 1923 (reaching 90+ years). The findings from the ground investigations suggests any improvement works to the superstructure will obligate a new substructure design or intervention in some manner given the current founding material is very weak and the likely cause for movement of the substructure. It is proposed the new bridge shall be supported on new reinforced concrete CFA bored piles that will extend in excess of 10m below ground level to suitable founding soil based on the ground information. The proposed solution was considered the most feasible solution that is practical for the site and enables continued service to the local highway network. [Ground Investigation report is enclosed in this Application.]

The scope for developing elsewhere/outside the park, or meeting the need for such a facility in another way.

The scheme specifically looks to maintain an existing public asset. Swindon Kennels bridge. It provides one of the main points of access that crosses over Grasslees Burn so it would be extremely difficult to do nothing or close the structure (Option 1 and 2 respectively, as discussed in Feasibility Report options appraisal). A new bridge at a different location outside the park would ignore the issue at hand, invoking either Options 1 or 2 in some manner and may not necessarily benefit the local community since local access will likely still end up impacted. An approx.14.5km worth of diversion was required in the past for the bridge road closure. [Feasibility Options Report is enclosed in this Application.]

To conclude it is inevitable that works will have to be carried out on the structure. The nature of work i.e., the full deck replacement and new substructure design is considered most appropriate given the current condition of the structure and the improvements it offers.

Any detrimental impacts on the park's special qualities public enjoyment of these/setting of historical assets/natural resources/transport network and mitigation of any detrimental impacts

The design team is highly aware of the special qualities of the National Park and any issues or concerns have been strongly considered within the scheme so that it can be accepted.

Other than few buildings near the bridge the site is largely characterised by grassland and moorland. Excluding private views from the buildings neighbouring the structure, views of the bridge especially its elevation is very limited from the public's standpoint. No designations apply to the bridge that restricts its type of design. Overall, the new replacement of the bridge deck is neutral in appearance and does not have any notable visual impact. The new substructure proposed is fully buried therefore hidden. The most notable visual difference would be due to the replacement of existing metal post and rail bridge parapets with new timber post and rail parapet system attached to plinths elevation. A parapet risk assessment was carried out verifying the suitably of the proposed parapet with reflective road discs. Timber parapets are widely used by NCC as a more ecofriendly parapet type comprising less embodied carbon, is easy to replace and somewhat visually friendly to the rural landscape of the site. [Parapet risk assessment is enclosed in this Application.]

No historic statutory have been identified at the site location that will be affected by the proposed works. During the pre-application process the NNPA Historic Environment Officer confirmed there are no historic records of the bridge and that the route crossing the bridge is likely dated from late 19th century. A watching brief to examine the bridge abutments and a level 1 record was requested by the NNPA Historic Environment Officer and shall be included in the work programs and a suitably qualified archaeologist appointed to conduct the watching brief.

The structure is located on the East boundary of the Northumberland National Park. It has been identified River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (SSSI), approximately 185m north, Simonside Hills SSSI and Simonside Hills Special Area of Conservation (SAC) both 1.4km south of site. Grasslees Burn is a tributary of the River Coquet and the point at which the bridge crosses the burn is close to the confluence. As

such, key consideration has been taken on the proposed development and its potential detrimental effect it may have on SSSI and protected species.

Total Ecology Ltd and NCC are well-versed of the local environment and the diversity of species in the area, especially near Grasslees Burn. 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 NCC Ecologist in June 2022, and an additional updating walkover survey took place on 6th May 2024 by NCC Ecologist, where an updated Ecology Report was provided. NCC Ecologist also assisted in development of the Method Statement with CEMP on the works that will be carried out while safeguarding the river environment, protected species and SSSI.
The reports confirmed that no protected species should be affected by the proposed development, however recommendations were provided. To undertake pre-start checks for protected species before commencement of work. For an Ecological Clerk of Works to supervise the preparation and installation of the crash deck. For works to especially avoid bird nesting season (March – August). It is recognised that works may clash with the migration period for some fishes in order to achieve safe flow conditions and also to avoid bird nesting season, it is required fish passage to be maintained through the working area at all times where works would be overseen by Ecological Clerk of Works. Mitigation measures also included following best practice around pollution prevention and silt control all which have been incorporated in the proposed construction methodology as means to also safeguard the river environment. [All Ecological Assessment Reports is included in this application. Method Statement with CEMP included is enclosed in the Application].

A separate application for an Ordinary Watercourse Land Drainage permit has been made for the proposed works. Only satisfactory proposals that demonstrate suitable mitigation measures around flood risks and protection of Grasslees Burn is achieved will only be accepted. Any conditions and additional feedback from the application will be taken onboard in the proposal.

The Environment Agency also highlighted that the site lies withing flood zone 2: an area with a medium probability of flooding. Therefore, flood risk assessment is required to ascertain that the risk of fluvial or localised flood risk issues are not increased. [Flood risk assessment is enclosed in the Application].

The development's positive impacts on the park's special qualities/public enjoyment of these/setting of historical assets/natural resources/transport network.

It is considered that there are several strongly positive outcomes for the delivery of the proposals.

1. The integrity of the river crossing will be protected. This will provide and maintain vital highway connectivity for the local Hepple area. This is of great importance and interest of the public.
2. Key business such as farming, and tourism rely on the connectivity the bridge provides. A situation where the bridge is closed in the past has required approx. 14.5km worth of diversion of equivalent road which would be highly disruptive especially to businesses dependent on regular transportation. It also works as a

diversion route should the C172 nearby be closed etc, where it provides alternate access to the Upper Coquet valley.

3. The structure overall is in a fair condition however parts of the substructure can be considered in poor condition which puts it at risk of collapse. Any accidental failure of the bridge could have fatal consequence. Additionally, such incident would be more harmful to the environment in comparison to a controlled and planned construction works where there would be sedimentation and pollution control and measures to safeguard any protected species. The proposed development would eliminate this risk of potentially failing structure and provide a Eurocode standard structure with 120 years design life. The new bridge design is improved featuring semi-integral joint details which is a solution that makes the structure more watertight and protected against water-induced defects in the future.
4. After completion the new bridge designs will be able to support unrestricted normal traffic, which is an improvement to existing development where the crossing and hence majority of the C180 will be restricted to traffic weighing less than 17 tonnes.
5. The decision to construct a new sub-structure design (bored piles) behind the existing abutments has provided several advantages saving the need for demolition. Main advantage is the substructure is more resilient to scour which is particularly beneficial considering scour is more prevalent in areas prone to flooding; and there have been reports of flooding in the area adjacent to the bridge.
6. Ecological study identified opportunities to potentially enhance the habitat through the addition of bat boxes in the area and providing dipper nest boxes underbridge. A gap will be retained between the top of the existing abutments and soffit, also there would be chances for gaps to form on the elevation of the masonry abutment over time. Above features could improve roosting potential for small bird species and bats at this site.

The design team has extensive knowledge and experience of preparing and constructing measures to protect public infrastructure that is situated near rivers and ecologically sensitive areas, like Swindon Kennels bridge located in the National Park. These qualities are invaluable in understanding the constraints of the site and developing a construction methodology that have effective mitigation but also allow for development of designs that are resilient and appropriate to such sites.

Any cumulative impact with other built development

There are no other known developments in the river environment therefore cumulative impacts have not been considered.

The extent to which design and siting respects the landscape character

To a greater extent the design and siting of the development has been determined by what is the most feasible design, that is practical and has great economic value and is able to capitalise from the project given the disruption that would be associated with any construction proposals. The work extent for this scheme is largely exclusive to just the bridge itself with the highway above designed to be tied in with the existing road at each end. It is not anticipated that works will affect the local landscape or require significant landscaping, though some solutions have been adopted in respect of the surrounding landscape character.

- The visual impact of the bridge deck itself is not impactful nevertheless the proposed deck and new timber parapets are visually neutral or friendly to the local rural landscape.
- Though it is not visible, the abutment will be reinstated using original masonry blockworks and it is proposed it shall be capped with a new capping stone matching the wingwalls style.
- The biodiversity net gain has been considered for the proposed development, and determined the site is exempt from BNG requirements. CEMP has been included in the Method statement and recommendations to enhance the habitat from the ecological reports have been proposed in the works.