



North Northamptonshire Council

SPECIFICATION

WARREN BRIDGE FLOOD DEFENCE WALL – DETAILED DESIGN AND SURVEYS

WARREN BRIDGE FLOOD DEFENCE WALL
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1. Introduction

- 1.1. North Northamptonshire Council (hereafter referred to as “The Council”) invites quotations for the provision of a flood defence wall on the right bank adjacent to residential properties Nos 12, 14, 15, 16, 17 and 20 Warren Bridge; and garden reinstatement / landscaping. The wall is expected to tie into the existing wall between Nos 17 and 20 Warren Bridge.
- 1.2. Warren Bridge is a residential development in Oundle, North Northamptonshire, believed to have been constructed in the 1980s. An ordinary watercourse known as Lyveden Brook flows in a south-easterly direction running adjacent to the residential development as shown in Figure 1 - Site Overview.

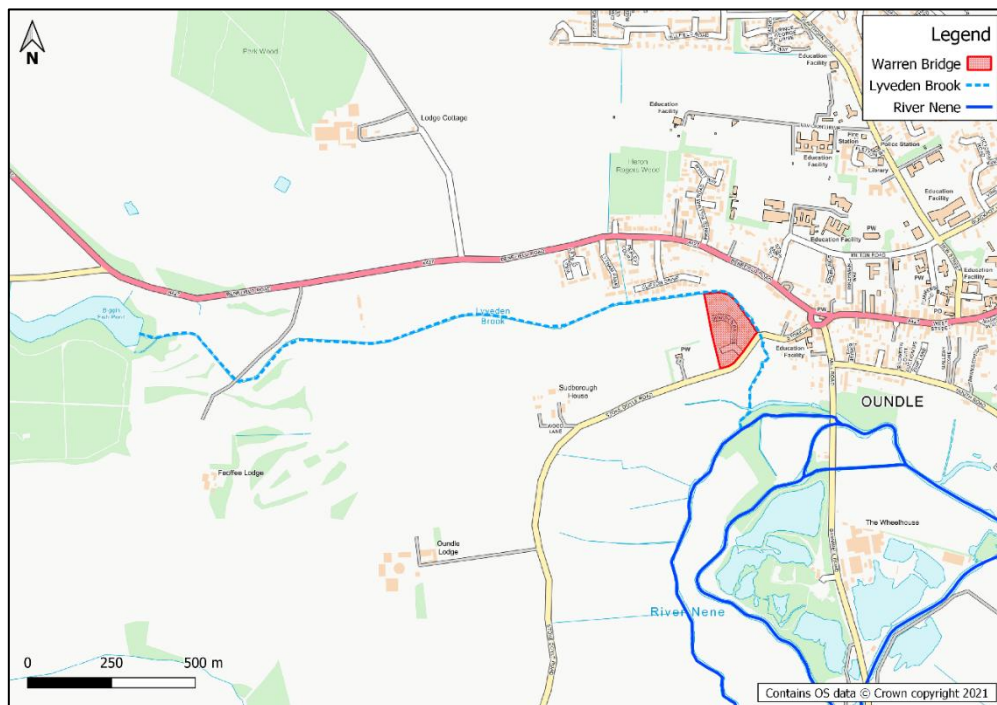


Figure 1 - Site Overview

- 1.3. The council together with a consortium of residents which have formed a private management company, which henceforth shall be referred to as “The Company”. “Residents” shall refer to the wider community as a stakeholder group.

The Company have provided private equity funding and secured further funds through NNC Capital Schemes, for the design and construction of a flood defence wall to provide greater resilience to the properties listed in Section 1.1.

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2. Background

- 2.1. The Lyveden Brook discharges to the River Nene immediately downstream of the Stoke Doyle Road Bridge which acts as a control structure, holding water back when levels on the brook are high enough and dampening the backwater effect from the Nene. This is a masonry arch bridge of unknown dimensions and capacity.

Approximately 1.5km upstream of Warren Bridge there is a small, raised reservoir known as Biggin Fish Pond, a privately owned and managed pond, which outfalls into the Lyveden Brook through a weir that controls the water level of the pond. A spillway allows water to flow out of the pond when water levels are in excess of the capacity of the weir. Owing to its impounding volume, the pond is classed as a statutory reservoir and is registered as such with the Environment Agency under the Reservoirs Act 1975. A supervising engineer is in place to fulfil the duties of the Act. The levels of the weir and spillway are not known but residents of Warren Bridge believe excess overflow from the pond to be a driver of flooding due to siltation during low frequency events.

Downstream of the pond, the brook passes through the Oundle Golf Club which has also experienced flooding, but the owners have not been able to ascertain whether this is due to the brook or to course drainage.

Upstream of Stoke Doyle Road bridge (Figure 2 and Figure 3) a severe narrowing of the watercourse is observed adjacent to No. 16 Stoke Doyle Road, with the watercourse downstream of the bridge then following a shallow gradient through the floodplain of the River Nene. From a visual inspection the capacity of the downstream channel may be lower than that of the channel upstream.



Figure 2. Stoke Doyle Road bridge- Upstream Face



Figure 3. Stoke Doyle Road bridge- Downstream Face

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3. Scope

- 3.1. The flood defence wall is to be designed, so that it will provide suitable flood prevention for a 1 in 100yr + 40%CC storm event.

The work will develop on the preferred option identified in the outline business case. Appropriate surveys will need to be undertaken, to formulate the design and confirm its feasibility. The work will conclude with the preparation of a scheme design that is suitable for construction in accordance with relevant standards and a justification for the use of any standards.

To achieve this, the work has been split into 4 phases, A to D. At the completion of each phase there is a Hold Point where the NNC Project Manager (PM) and residents will review the outputs before giving approval to proceed to the next phase. At each hold point the Risk Register, Decision Register, Constraint Register and Comms Plan are to be reviewed and updated. Hold point reviews should be held just before the programmed end of phase to allow time for any necessary corrective actions to be completed.

Phase A: Scheme Familiarisation

- Review Outline Business Case.
- Site visit, and meeting with residents.
- Design concept and approach.

Phase B: Surveys and Testing

- Determine requirements for technical surveys.
- Identify surveys required.
- Undertake surveys.
- Review surveys.

Phase C: Detailed Design

- Hydraulic modelling to confirm design parameters.
- Design of flood defence wall.
- Outline Delivery Programme.
- Handover of all reports, forms, drawings, and presentation materials.
- Handover meeting.

Phase D: Construction

- Response to TQs (Technical Questions)
- Production of As-built drawings.

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4. Conditions of Service and/or Works

- 4.1. The physical environment and the property boundary line shall be the determining factors for the design output, all efforts shall be made to ensure that there is no reduction in the property area of residential properties.
- 4.2. It is essential that the wall be designed to fit in its entirety within the residents' land boundary.
- 4.3. A residents' owned and controlled management company has been formed for the purposes of holding the land upon which the flood defence wall will be constructed. The management company will hold land ownership of the flood defence wall together with appropriate rights of access over resident's properties to enable ongoing maintenance and repair. All obligation for maintenance and repair will vest with the management company and not with the residents individually, but they will be obliged to contribute towards ongoing costs. Covenants will be built into the individual residents' property titles to allow for this and to bind future property owners to the same arrangement.
- 4.4. Please note that the land transfers from various residents to the management company have not yet taken place but are envisaged to do so upon completion of the design phase when there is clarity on the specification, dimensions and location of the flood wall.

5. Continuity of Service and/or Works

- 5.1. The supplier is required to demonstrate that they have in place.
 - Basic business continuity plan containing an overview of the recovery strategies in place for the identified risks and the expected recovery time objectives (RTOs) and recovery point objectives (RPOs). An overview of acceptable disruption and minimum service level agreement.
 - A description of the risk assessment process, including the identified risks, their likelihood, and potential impact of disruption.

6. Key Supplier Staff

- 6.1. A competent and qualified engineer in good standing is required to authorise design elements on behalf of the supplier. The supplier will be expected to provide details of this individual, their qualifications, and professional accreditations.
- 6.2. The supplier shall be required to provide to the council a list of competencies for key staff.

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7. Statement of Requirements

7.1. Design and performance criteria.

- 7.1.1. Review the Outline Business Case proposal and evaluate its effectiveness in meeting the requirements set out in Sections 7.1.2 & 7.1.3. Identifying key areas/components/specification that will be critical to the successful design and complete an integration plan.
- 7.1.2. Design working life category 4 - typically 51-120 years design working life.
- 7.1.3. The flood defence wall is to be designed, so that it will provide suitable flood prevention for a 1 in 100yr + 40%CC storm event.
- 7.1.4. The supplier shall be required to outline specific warranties required by the contractor for the construction phase.
- 7.1.5. The supplier shall be responsible for the identification and implementation of design specific specifications that determine the effectiveness of the design. It should be possible to demonstrate that all design elements meet a robust set of guidance and performance criteria from recognised industry standards.

7.2. Deliverables and Outcomes

7.2.1. Phase A: Scheme Familiarisation:

- a) Design concept meeting – PowerPoint presentation.

7.2.2. Phase B: Surveys and Testing:

- a) Detailed Survey Plan clearly showing each survey and survey location to be undertaken – PDF format
- b) A programme of works to include; A list of contractors and details of the works to be carried out and the expected dates.
- c) Once the plan and cost have received the approval of NNC and The Company. The service provider shall procure and supervise the completion of the surveys, ensuring that all information requested in the plan is received and that they are of a sufficient standard and detail for design and construction purposes.
- d) Detailed report outlining key details for the surveys and testing phase.

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7.2.3. Phase C: Detailed Design:

- a) Produce a detailed hydraulic model using a 2D modelling software such as InfoDrainage/TUFLOW or similar (subject to approval) with a detailed report outlining the input parameters & demonstrating that the design will withstand the specified flooding event. - PDF format, computation model in original format.
- b) Detailed design of flood defence wall to include drawings, calculations and report. – PDF, Excel & .dwg format.
- c) Detailed programme of delivery for construction including key dates and stage gates – Excel & PDF format.
- d) Handover meeting TBA by the supplier with NNC and The Company.
- e) Full project design report, which shall include details of the prior reports from Phase A and Phase B and shall supersede those reports. This should include Value for Money assessment carried out in accordance with the DfT Value for Money Framework. This shall be in addition to the CDM requirements – PDF format.

7.2.4. Phase D: Construction:

- a) Response to TQs
- b) Production of As-built drawings. – PDF format.

7.2.5. Note: the production of as-built drawings shall be taken as the designer is satisfied that the contractor has met the design brief, it is incumbent on the designer to satisfy themselves that any information provided by the contractor is correct.

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7.2.6. Estimated Timetable

ACTIVITY	TIME AND DATE (as applicable)
1. Contract awarded	Friday, 30 May 2025
2. Concept design meeting deadline	Friday, 20 June 2025
3. Detailed survey plan deadline	13:00 on Friday, 27 June 2025
4. Survey Plan approval and procurement start	Monday, 30 June 2025
5. Survey report	Friday, 18 July 2025
6. Construction-tender ready design	Friday, 15 August 2025
7. Detailed Design Deadline	Tuesday, 30 September 2025
8. Contractor meeting	Friday, 17 October 2025
9. Construction Window for TQs	Monday, 20 October – Friday, 19 December

8. Sustainability, Environmental Considerations and Reducing Waste

8.1. The supplier is expected to consider, during the design phase the environmental impact, the sustainability of the materials specified, and considerations should also be made to reducing waste where possible, in accordance with the council's climate change strategy.

8.2. The supplier is expected to:

- a) Use environmentally responsible practices and maximise opportunities for environmental and biodiversity improvement.
- b) Consider the use of materials that are sustainable.
- c) Reduce the carbon footprint and environmental impact.
- d) Address future issues such as climate change.

9. Social Value

9.1. To provide the most cost-effective scheme which will be economically affordable and represent value for money.

10. Sign-off and Handover

10.1. All phases/ deliverables/ outcomes shall require sign off from the NNC nominated individual stated in the Request for Quotation.

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- 10.2. Each phase shall be a stage gate by which quality and validity of the works will be assessed to ensure they meet the requirements set out in Section 7.2.
- 10.3. The design handover process shall follow NNC standards for the receipt of sensitive information.
- 10.4. The programme of works including handover dates shall be agreed upon by the supplier and NNC at the commencement of the contract.
- 10.5. Signing of As-Built drawings shall be confirmation that the contractor has met the design specifications.

11. Insurances of Works and Indemnities

- 11.1. The service provide will demonstrate compliance with the requirements for insurance detailed in the Request for Quotation.
- 11.2. Employer's (Compulsory) Liability Insurance at no less than £5,000,000 (Five Million Pounds)
- 11.3. Public Liability Insurance at no less than £5,000,000 (Five Million Pounds)
- 11.4. Professional Indemnity Insurance at no less than £500,000 (Five Hundred Thousand Pounds)
- 11.5. It is the responsibility of the supplier to ensure that their insurance policy covers any, and all activities on site.

12. Health and Safety

- 12.1. The service provider will be responsible for maintaining the highest standards of health and safety before during and on completion of the works.
- 12.2. The service provider is required to meet all requirements in compliance with the HSE guidance for all activities carried out in relation to the works. Where HSE guidance does not provide specific details the service provider shall defer to industry/manufacture/suppliers' specific guidance.
- 12.3. The service provider shall be able to provide on request evidence of due diligence with regards to the safety of all persons for any, and all activities undertaken in relation to the works.
- 12.4. Welfare facilities to be provided by the service provider for site operatives, if deemed necessary.
- 12.5. The service provider shall be wholly responsible for ensuring any works carried out by any subcontractor or other service provider, that they have instructed, is done so in accordance with requirements of the contract.
- 12.6. The site has been subject to detailed walk over surveys and is not suspected to have any hazardous materials present. However, should any be

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discovered during the specified works then the supplier has a duty to report any such materials to the NNC representative **and** to any governing body that is required under UK legislation.

- 12.7. To not significantly increase the maintenance burden on landowners/the community. Where possible, the scheme will minimise future operation and maintenance requirements and should be safe to maintain.

13. Data Management / UK General Data Protection Regulation (UK GDPR)

- 13.1. As a data controller, we are committed to upholding the principles of UK GDPR and the Data Protection Act 2018 (UK Data Protection Legislation) to ensure:

- that any processing is lawful, fair, transparent and necessary for a specific purpose.
- that data is kept accurate, up to date and removed when no longer necessary.
- that data is kept securely and safely; and
- transparency regarding use of personal (including special category) data.

- 13.2. The data controller has overall control of the personal data that it holds. The data controller is responsible for ensuring that its data processors are competent to process personal data in line with UK GDPR requirements. Under Article 28(1) data controllers are only permitted to use data processors that can provide “sufficient guarantees” to implement appropriate technical and organisational measures, to ensure the processing complies with the UK GDPR and protects the rights of individuals.

- 13.3. There have been no data protection implications identified for the initial provision of this service.

- 13.4. If, at any stage following the commencement of services the supplier requires access to personal data held by the data controller; the data controller will ensure that the appropriate provisions are put in place and documented, to allow the processing to be undertaken in accordance with UK Data Protection Legislation.

- 13.5. In this event, in accordance with Article 28 UK GDPR, the supplier as a ‘data processor’ must adhere to the following provisions:

- 28 (3)(a) only process personal data in line with the data controller’s documented instructions (including when making an international transfer of personal data), unless it is required to do otherwise by UK law.

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- 28(3)(b) the data processor and its personnel must obtain a commitment of confidentiality from anyone it allows to process the personal data, unless that person is already under such a duty by statute.
- 28(3)(c) the data processor is obligated to take all security measures necessary to meet the requirements of Article 32 on the security of processing.
- 28(3)(d) the data processor should not engage another processor (a sub-processor) without the controller's prior specific or general written authorisation. Where authorisation is received, the sub-processor must offer an equivalent level of protection for the personal data.
- 28(3)(e) the data processor must take "appropriate technical and organisational measures" to help the data controller respond to requests from individuals to exercise their data rights.
- 28(3)(f) considering the nature of the processing and the information available, the data processor must assist the data controller in meeting its obligations to investigate and report data breaches to the ICO and data subjects, where applicable.
- 28(3)(g) upon termination of services, the data processor must delete existing copies of the personal data and confirm in writing to the data controller that it has done so, unless UK law requires it to be stored. Deletion of personal data should be done in a secure manner, in accordance with the security requirements of Article 32.
- 28(3)(h) the data processor must provide the data controller with all the information that is needed to show that the obligations of Article 28 have been met; and allow for, and contribute to, audits and inspections carried out by the data controller, or by an auditor appointed by the data controller.

13.6. The Potential Supplier shall comply with any further written instructions with respect to processing by the Council.

14. Quality Requirements

14.1. A competent and qualified engineer is defined as a person holding chartership status with one or more of the following organisations.

- Institution of Civil Engineers (ICE)
- Institution of Structural Engineers (IStructE)
- Chartered Institution of Water and Environmental Management (CIWEM)

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- Institution of Engineering Designers (IED)

Other accreditations may be accepted pending review by the NNC representative.

15. Programme of Works and Implementation Criteria

- 15.1. The Programme of Works and its implementation will be a collaborative process between the supplier NNC and The Company see Section 10.4.
- 15.2. An assumed programme can be found in the Request for Quotation document.

16. Contract Management, Performance Monitoring, and Review

- 16.1. The NNC representative named in the Request for Quotation shall be responsible for the management of the contract and the monitoring of performance on behalf of NNC (the client).
- 16.2. NNC reserve the right to conduct an independent design review following submission. Any review will be conducted by a fully independent, qualified professional service and the process shall be fully transparent.

An independent review is not a requirement of the of the contract and may only be initiated if the NNC representative is not fully satisfied that the design meets the requirements set out in Section 7.

17. Risk Management

- 17.1. NNC reserve the right to conduct due diligence to ensure the supplier is financially stable and evaluate the supplier from a Foreign Ownership, Control or Influence (FOCI) perspective and for any negative media.
- 17.2. NNC shall work with the supplier to define and agree on appropriate KPIs, the contract, and its ongoing management.
- 17.3. NNC shall confirm with the supplier that they will be able to deliver on what was agreed upon, in line with the specifications provided. The supplier shall provide a guarantee to this effect.
- 17.4. NNC reserve the right to terminate the contract should any actions or activities conducted by the supplier bring negative publicity upon NNC.

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18. Corporate Social Responsibility

18.1. The Council has a responsibility to ensure the Suppliers it works with are ethical organisations. As such the supplier is required to provide detail on the following policies in place within their organisation.

- Equality and accessibility.
- Modern slavery, child labour, and/or inhumane treatment.
- Bribery and anticorruption.
- Working hours.

18.2. The supplier is expected to comply with all relevant UK legislation regarding working practices, and employer responsibilities.

Annexes

Table 1 – Annexes

Annex Title	Document
1. REQUEST FOR QUOTATION WARREN BRIDGE, OUNDLE – DETAILED DESIGN	Embed document(s)

Appendix 1 – Definitions

Table 2 – Definitions

Term or Acronym	Definition
Contract	The legal agreement between the Supplier and the Council, which details the Council's requirements, terms, and conditions.
Contract Year	A period of twelve (12) months, commencing on the Contract Start Date.
Council/NNC	North Northamptonshire Council.
Service and/or Works	A term used to describe the goods, supplies, service, works and/or any part, thereof and/or any other requirement to be provided and/or delivered by the Supplier, to fulfil the obligations and/or requirements of this document and all supporting documents.

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Term or Acronym	Definition
Supplier	The organisation who wins the Contract, following evaluation of all bids received by the Council.
HSE	The Health and Safety Executive, the UK regulator for workplace health and safety.
The Company/The Escrow	The management company set up by the residents of Warren Bridge and described in Section 4.3.
RfQ	Request for Quotation
CDM	Construction (Design and Management) Regulations 2015
TBA	To be arranged