



WOKINGHAM BOROUGH COUNCIL

A Meeting of the **PLANNING COMMITTEE** will be held in David Hicks 1 - Civic Offices, Shute End, Wokingham RG40 1BN on **WEDNESDAY 14 JUNE 2023 AT 7.00 PM**

Susan Parsonage
Chief Executive
Published on 6 June 2023

Note: Non-Committee Members and members of the public are welcome to attend the meeting or participate in the meeting virtually, in line with the Council's Constitution. If you wish to participate either in person or virtually via Microsoft Teams, please contact Democratic Services. The meeting can also be viewed live using the following link:
<https://youtube.com/live/88Gn7mVKvyc?feature=share>

Please note that other people may film, record, tweet or blog from this meeting. The use of these images or recordings is not under the Council's control.

Our Vision
<i>A great place to live, learn, work and grow and a great place to do business</i>
Enriching Lives
<ul style="list-style-type: none"> • Champion excellent education and enable our children and young people to achieve their full potential, regardless of their background. • Support our residents to lead happy, healthy lives and provide access to good leisure facilities to enable healthy choices for everyone. • Engage and empower our communities through arts and culture and create a sense of identity for the Borough which people feel part of. • Support growth in our local economy and help to build business.
Providing Safe and Strong Communities
<ul style="list-style-type: none"> • Protect and safeguard our children, young and vulnerable people. • Offer quality care and support, at the right time, to reduce the need for long term care. • Nurture our communities: enabling them to thrive and families to flourish. • Ensure our Borough and communities remain safe for all.
Enjoying a Clean and Green Borough
<ul style="list-style-type: none"> • Play as full a role as possible to achieve a carbon neutral Borough, sustainable for the future. • Protect our Borough, keep it clean and enhance our green areas for people to enjoy. • Reduce our waste, promote re-use, increase recycling and improve biodiversity. • Connect our parks and open spaces with green cycleways.
Delivering the Right Homes in the Right Places
<ul style="list-style-type: none"> • Offer quality, affordable, sustainable homes fit for the future. • Ensure the right infrastructure is in place, early, to support and enable our Borough to grow. • Protect our unique places and preserve our natural environment. • Help with your housing needs and support people, where it is needed most, to live independently in their own homes.
Keeping the Borough Moving
<ul style="list-style-type: none"> • Maintain and improve our roads, footpaths and cycleways. • Tackle traffic congestion and minimise delays and disruptions. • Enable safe and sustainable travel around the Borough with good transport infrastructure. • Promote healthy alternative travel options and support our partners in offering affordable, accessible public transport with good transport links.
Changing the Way We Work for You
<ul style="list-style-type: none"> • Be relentlessly customer focussed. • Work with our partners to provide efficient, effective, joined up services which are focussed around our customers. • Communicate better with customers, owning issues, updating on progress and responding appropriately as well as promoting what is happening in our Borough. • Drive innovative, digital ways of working that will connect our communities, businesses and customers to our services in a way that suits their needs.
Be the Best We Can Be
<ul style="list-style-type: none"> • Be an organisation that values and invests in all our colleagues and is seen as an employer of choice. • Embed a culture that supports ambition, promotes empowerment and develops new ways of working. • Use our governance and scrutiny structures to support a learning and continuous improvement approach to the way we do business. • Be a commercial council that is innovative, whilst being inclusive, in its approach with a clear focus on being financially resilient. • Maximise opportunities to secure funding and investment for the Borough. • Establish a renewed vision for the Borough with clear aspirations.

MEMBERSHIP OF THE PLANNING COMMITTEE

Councillors

Rachelle Shepherd-DuBey
Alistair Neal
Stuart Munro

Andrew Mickleburgh
Wayne Smith
Tony Skuse

David Cornish
Michael Firmager
Bill Soane

ITEM NO.	WARD	SUBJECT	PAGE NO.
1.		ELECTION OF CHAIR To elect a Chair for the 2023/24 Municipal Year.	
2.		APPOINTMENT OF VICE-CHAIR To appoint a Vice-Chair for the 2023/24 Municipal Year.	
3.		APOLOGIES To receive any apologies for absence.	
4.		MINUTES OF PREVIOUS MEETING To confirm the Minutes of the Meeting held on 10 May 2023.	5 - 14
5.		DECLARATION OF INTEREST To receive any declaration of interest	
6.		APPLICATIONS TO BE DEFERRED AND WITHDRAWN ITEMS To consider any recommendations to defer applications from the schedule and to note any applications that may have been withdrawn.	
7.	Hillside	APPLICATION NO.221797 - "CROCKERS", RUSHEY WAY, EARLEY Recommendation: Conditional approval	15 - 60
8.	Emmbrook	APPLICATION NO.203617 - RIVERSIDE PARK, WOOSEHILL, WOKINGHAM Recommendation: Conditional approval subject to legal agreement	61 - 362
9.	Bulmershe and Whitegates	APPLICATION NO.230743 - LIBRARY PARADE, WOODLEY Recommendation: Conditional approval subject to legal agreement	363 - 410
10.	Wokingham Without	APPLICATION NO.230283 - OAK APPLES, OAKLANDS LANE, CROWTHORNE, RG45 6JX Recommendation: Conditional approval subject to legal agreement	411 - 444

Any other items which the Chair decides are urgent

A Supplementary Agenda will be issued by the Chief Executive if there are any other items to consider under this heading.

GLOSSARY OF TERMS

The following abbreviations were used in the above Index and in reports.

C/A	Conditional Approval (grant planning permission)
CIL	Community Infrastructure Levy
R	Refuse (planning permission)
LB	(application for) Listed Building Consent
S106	Section 106 legal agreement between Council and applicant in accordance with the Town and Country Planning Act 1990
F	(application for) Full Planning Permission
MU	Members' Update circulated at the meeting
RM	Reserved Matters not approved when Outline Permission previously granted
VAR	Variation of a condition/conditions attached to a previous approval
PS Category	Performance Statistic Code for the Planning Application

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**MINUTES OF A MEETING OF THE
PLANNING COMMITTEE
HELD ON 10 MAY 2023 FROM 7.00 PM TO 9.05 PM**

Committee Members Present

Councillors: Rachelle Shepherd-DuBey (Chair), Andrew Mickleburgh (Vice-Chair), Stephen Conway, David Cornish, Rebecca Margetts, Alistair Neal and Wayne Smith

Councillors Present and Speaking

Councillors: Pauline Jorgensen and Caroline Smith

Officers Present

Brian Conlon, Operational Lead – Development Management
Lyndsay Jennings, Senior Solicitor and Team Leader
Roger Johnson, Senior Assistant Engineer - Highways
Callum Wernham, Democratic & Electoral Services Specialist

Case Officers Present

Mark Croucher
Stefan Fludger
Benjamin Hindle
George Smale
Marcus Watts

109. APOLOGIES

There were no apologies for absence.

110. MINUTES OF PREVIOUS MEETING

The Minutes of the meeting of the Committee held on 12 April 2023 were confirmed as a correct record and signed by the Chair.

The Committee shared their sincere thanks to Chris Bowring, who had served on the Committee for many years in addition to serving as Chair and Vice-Chair of the Committee. The Committee had always benefitted from his thorough understanding of the planning system. The Committee wished him well in his future endeavours.

111. DECLARATION OF INTEREST

David Cornish declared a Personal Interest in Item 113, Application 211335 Land Adjourning Lynfield House, White House Lane, and Item 115, Application 222805, High Barn, Church Lane, on the grounds that he was a Member of the Planning Committee for Finchampstead Parish Council and he had previously made comments in relation to these applications based on preliminary information. Since then, more detailed information had become available and David stated that he would consider all information and representations before forming a view, and approached the meeting with an open mind.

Rebecca Margetts declared a Personal Interest in Item 113, Application 211335 Land Adjourning Lynfield House, White House Lane, on the grounds that she had listed the application as Ward Member for Finchampstead South. Rebecca added that she would view the application with an open mind and consider it on its merits. In addition, her son had received cricket coaching in the past from Phil West who would run the cricket net.

Alistair Neal declared a personal interest in Item 221797, "Crookers", Rushey Way, on the grounds that the application site was situated within his Ward and he was a Member of the Earley Town Council Planning Committee which had discussed this application. Alistair stated that that he would consider all information and representations before forming a view, and approached the meeting with an open mind.

112. APPLICATIONS TO BE DEFERRED AND WITHDRAWN ITEMS

Agenda Item 117, Application 213610, was withdrawn from the agenda.

113. APPLICATION NO.211335 - LAND ADJOINING LYNFIELD HOUSE, WHITE HORSE LANE, FINCHAMPSTEAD, BERKSHIRE, RG40 4LX

Proposal: Full application for the proposed change of use of a section of agricultural land to a recreational all-weather cricket track and wicket with mobile cricket cage, plus fencing, parking and associated works.

Applicant: Mr R Bishop

The Committee considered a report about this application, set out in agenda pages 15 to 40.

The Committee were advised that there were no updates contained within the Supplementary Planning Agenda.

Nicola Greenwood, British Horse Society, spoke against the application. Nicola stated that there was genuine concern for the safety of road users should this application be approved, with the nearest corner of the proposed nets to be situated between 8m and 10m from the road boundary, in very close proximity to a blind bend and a single-track lane which enjoyed heavy recreational use. Nicola added that the British Horse Society conducted an equine census in 2021 with the help of DEFRA, which showed that there were 3938 horses living within the Wokingham Borough and 2024 horses living within an hour's ride of White Horse Lane. Whilst the Council's appointed equine expert suggested that the applicant could inform horse owners when cricket sessions were due to run, this would be unfeasible given the 117 commercial and private venues located within an hour's ride of the site. Nicola stated that whilst police and military horses could be trained and conditioned to be resilient to sudden noises, this took an enormous amount of training, and many horses would not be able to reach this level of resilience even if such training opportunities were available. Nicola added that the bridleway network in the Borough was fragmented, and the noise of a bat on ball was not a predictable noise for equines when compared to something like a car engine. Nicola stated that horses could more easily accept sounds where they could see its origin, whilst a horse walking at 4MPH could easily spook to 54MPH. Nicola requested that should the application be approved, that a condition be added requiring the installation of additional horse rider signs 150m either side of the site, and to place the nets a minimum of 60m from the White Horse Lane boundary to follow the trend in the Borough.

Rebecca Margetts stated that she had hoped to see the precise details of exactly where the net would be situated, however this was still not clear. Rebecca added that she was compelled by the representations made by the equine expert, with regards to safety of horses, riders and the general public.

David Cornish was of the opinion that the plans before the Committee were still opaque, and felt that none of the additional information presented on the evening had made it any

clearer as to precisely where the net would be situated. David felt that safety of all users of the lane had to be a top priority, and queried whether the change of use would be from agricultural land to commercial land. Mark Croucher, case officer, stated that the change of use would be from agricultural land to sui generis, given the bespoke and unique use of the site.

Andrew Mickleburgh stated that whilst the site visit had allayed some of his concerns in relation to noise, access, parking, and the relationship to the wider area, he still had concerns that this application would be a further incursion into the designated agricultural area, without sufficient justification.

Stephen Conway stated that it would be unusual for a cricket net to be situated next to a house and fence, and was of the opinion that this was not a good location for such a development. Stephen noted that the development would also be situated next to a highway which was well used by pedestrians, riders and vehicles.

Rachelle Shepherd-DuBey queried what grade the agricultural land was. Mark Croucher stated that he did not have the land grading to hand, however this development would represent a small incursion which would be hard to justify as a reason for refusal.

Wayne Smith was of the opinion that the key issue was whether there was sufficient justification for the development to further encroach on designated agricultural land. Mark Croucher stated that policy CP11 stated that applications had to demonstrate that they would not lead to excessive incursion. Mark added that any reference to 'very special circumstances' usually referred to the green belt, which this site was not situated within.

Rachelle Shepherd-DuBey queried what constituted excessive encroachment into designated agricultural land. Mark Croucher confirmed that this was a planning judgement.

Alistair Neal commented that the Committee had refused a previous application at a different site citing policy CP11 as the office building in that application had no relationship with the farm. Alistair felt that the same logic should be applied here for consistency. Mark Croucher stated that policy CP11 allowed for diverse and sustainable enterprises which would not lead to excessive encroachment in the countryside.

Andrew Mickleburgh proposed that the application be refused as the development would lead to further encroachment into designated agricultural land. This was seconded by Rebecca Margetts.

RESOLVED That application number 211335 be refused, as the development would lead to further encroachment into designated agricultural land.

114. APPLICATION NO.222906 - LAND SOUTH OF CUTBUSH LANE, SHINFIELD (WEST OF OLDHOUSE FARM) AND GATEWAY PLOT 4 TVSP

Proposal: Full planning application for the proposed erection of a temporary Film Studio Backlot (for a period of 5 years).

Applicant: Shinfield Studios Ltd.

The Committee considered a report about this application, set out in agenda pages 41 to 78.

The Committee were advised that updates contained within the Supplementary Planning Agenda included:

- Amendment to the address name;
- Removal of condition 15 following provision of an Archaeological Evaluation Report;
- Addition of approved plans;
- Amendment to the consultation responses table, to confirm that the Environment Agency had no objection subject to conditions.

Nick Paterson-Neild, agent, spoke in support of the application. Nick stated that this application was for a five-year temporary permission for a film studio backlot, adjacent to the existing studios, following successful use of part of the land via permitted development. Nick added that there had been no objections received with regards to this application. Nick added that the proposal would facilitate the filming of outdoor scenes, and would be surrounded by landscaping to further screen the development. Nick stated that the application was supported by a S106 agreement, facilitating further renewable energy provision on the main site and a twenty-percent biodiversity net gain in excess of the Council's requirements. Nick added that the application would help meet the pressing demand for film studio space production, whilst providing economic benefits for the local economy. Nick stated that the application supported the University of Reading's ambitions for the expansion of Thames Valley Science Park's 'creative cluster'. Nick asked that the application be approved.

Andrew Mickleburgh noted that there were no objections to the application whilst the development would bring with it a number of merits. Andrew added that he was inclined to support the application.

David Cornish was of the opinion that this was a good quality application with a number of merits. David queried what would happen in practice with regards to restoration of the site and the end of the temporary permission. Benjamin Hindle, case officer, stated that standard practice remediation measures would be required, which may include removing the temporary surfacing, re-seeding and additional planting.

Stephen Conway commented that much of the site had prior approval, whilst the development would bring with it a number of merits and very minor and temporary harms, whilst contributing to the local economy.

Rachelle Shepherd-DuBey commented that she was very supportive of additional local jobs within the creative industries sector within the Borough.

Wayne Smith echoed comments raised with regards to restoration of the site, and urged officers to work with the applicant to ensure that suitable restoration took place once the temporary permission had ceased.

Andrew Mickleburgh proposed that the application be approved as per the officer recommendation within the agenda pack, and revisions contained within the Supplementary Planning Agenda. This was seconded by Stephen Conway.

RESOLVED That application number 222906 be approved, subject to conditions and informatives as set out in agenda pages 67 to 72, removal of condition 15 and addition of approved plans as contained within the Supplementary Planning Agenda.

115. APPLICATION NO.222805 - HIGH BARN, CHURCH LANE, FINCHAMPSTEAD, RG40 4LR

Proposal: Full application for the change of use of agricultural paddock with proposed shed and part of private woodland to commercial land to be used for the provision of dog walking services. (Retrospective)

Applicant: Mr G Capes

The Committee considered a report about this application, set out in agenda pages 79 to 108.

The Committee were advised that there were no updates contained within the Supplementary Planning Agenda.

Brian Bidston, resident, spoke in objection to the application. Brian stated that whilst the application was referred to as for dog walking, this usually referred to individuals going into a field with up to 6 dogs. Brian was of the opinion that the dogs were being picked up, mostly from Camberley, and transported in lorries. The dogs were then moved through woodland around a blocked pathway. Brian stated that his main concern was one of safety, as people working on the adjacent farm would be working in close proximity to the site. Brian quoted the recommendations of the British Dog Fields Association, via which the existence of 27 dogs and only three handlers was inherently dangerous. Brian stated that there was originally a 1.5m high mesh fence to be installed as part of a previous application, however this application had been withdrawn. The subsequent application included a 1.2m high mesh fence, however this element of the application was removed after the consultation period as the existence of the agricultural fence was thought to be adequate. Brian asked that if the application be approved, a 1.5m-1.8m fence be conditioned as recommended by the British Dog Fields Association.

David Pearce, agent, spoke in support of the application. David stated that the dogs arrived at the site in a van onto the owner's land, with no access to the sports field. The van was parked next to a holding pen whereby the dogs were then moved into the holding pen and then taken towards the footpath. David added that once the dogs reached the footpath the applicant had installed a gate either side of the footpath, to be used whilst the dogs were moved into a further holding pen. The dogs then proceed to cross a field, again owned by the applicant, to the middle field where they are then cared for by the dog walkers. David stated that at no time during this process is there any public interaction. David added that he had witnessed 18 dogs being walked by the public along the footpath over a number of hours, with 16 off the lead and some barking or being out of control. David felt that this was normal behaviour and did not pose a concern. David raised concern over the rights of the public to walk their dogs on the applicant's land should this application be refused. David stated that this application provided an essential service to care for and look after dogs whilst people worked, went to school, went to an appointment or travelled on holiday. David added that the dog walking activity was primarily restricted to private land, with no public interaction, whilst the application would benefit the general community. David concluded by stating that the application was sound regarding its planning merits, and licensing would cover concerns raised by objectors.

David Cornish queried the operating hours of the service. Marcus Watts, case officer, stated that the hours of operation would be from 10.30am until 2.30pm, Monday to Thursday, which was the same as the current operation of the site.

David Cornish stated that the 'right of way' referred to was in fact owned by the Parish Council and leased to the memorial hall playing fields. Whilst the applicant had permission to cross that land, it was not a right of way. David queried whether vehicles would be required to park and turn on the applicant's land, queried why additional fencing was not being implemented given this was a very well used footpath, and sought clarity regarding the proposed change of use from agricultural to commercial land. Marcus Watts confirmed that vehicles would have to be parked in their designated area, as secured by condition. With regards to fencing, Marcus stated that this fell under environmental protection regulations and was not a material planning consideration. Marcus added that paragraph 16 of the officer report explained why it was not felt appropriate to erect such a fence in a rural setting. Brian Conlon, Operational Lead – Development Management, stated that there were many types of commercial use, and agricultural use was a type of commercial use and was usually considered the 'default' use. Brian added that this application represented a sustainable rural enterprise according to policy. Brian confirmed that planning permission was required to change the classification from agricultural to commercial land, and should the business cease, the land would not become a different type of commercial, however another dog walking business could in theory operate on the land immediately after this business ceased. Wider commercial uses, which were not dog walking, would require planning permission in their own right.

Rebecca Margetts sought reassurance in relation to the licensing of the site, and raised concern that the dogs could get underneath the existing agricultural fencing. Brian Conlon stated that the planning system did not insist on regulating other aspects of the use of the site as this would result in duplication with the licensing process, which would take precedence in any case. In relation to fencing, Brian stated that public rights of way were designed for a range of users, and to insist of infrastructure for one particular user type could set precedent and it was not for the planning system to base such a requirement on the use of the land without a technical understanding of what was safe, or not safe.

Stephen Conway commented that safety issues sat outside of the remit of the Planning Committee, whilst access was a civil matter. Stephen queried whether there was any precedent that could be established by changing the use of the site from agricultural land to commercial land. Brian Conlon confirmed that no precedent would be set, as the description of development referred to use of dog walking services.

David Cornish commented that he had a lot of sympathy for the applicant, and felt that sustainable commercial ventures should be encouraged. David questioned whether a condition could be implemented to require the land to revert back to agricultural should the dog walking business cease operation.

Wayne Smith sought clarity regarding the significance of describing the paddocks as 1, 2, 3 and 4, and queried the relation of the application site and the nearby church conservation area. Marcus Watts confirmed that each of the paddocks was owned by the applicant, and were named as such as the site had historically housed sheep. Marcus added that the site fell outside of the conservation area, which at its closest point was approximately 70m away.

Wayne Smith commented that such enterprises were opening up across the Borough, and conditioning for such sites needed to be proportionate and consistent. Wayne added that such sites could pose problems for planning enforcement as they were usually located in quiet areas away from frequent public view.

Stephen Conway proposed an additional informative, expressing the Committee's request regarding the need to ensure that safety concerns were properly addressed via the assessment of the license for the site. This was seconded by Andrew Mickleburgh, carried, and added to the list of informatives.

Stephen Conway proposed that the application be approved, subject to the officer recommendation and additional informative as resolved by the Committee. This was seconded by Andrew Mickleburgh.

RESOLVED That application number 222805 be approved subject to conditions and informatives as set out in agenda page 88, and additional informative regarding the need to ensure that safety concerns were properly addressed via the assessment of the license for the site as resolved by the Committee.

116. APPLICATION NO.221797 - "CROCKERS", RUSHEY WAY, EARLEY, WOKINGHAM

Proposal: Outline application with all matters reserved for the proposed erection of 9 no. dwellings following demolition of the existing dwelling.

Applicant: Mrs C Burrows

The Committee considered a report about this application, set out in agenda pages 109 to 146.

The Committee were advised that updates contained within the Supplementary Planning Agenda included clarification with regards to access, amount of development and trees and landscape issues.

Sandra Shaw, resident, spoke in objection to the application. Sandra was of the opinion that moving from one property to 9 properties was an example of overdevelopment, and whilst the plans were indicative, they failed to address a number of concerns raised by residents and the Council. Sandra felt that the application failed to demonstrate how a suitable and safe access could be achieved, whilst a 30m junction spacing, as outlined in Wokingham Borough Council's (WBC's) 'Manual for Streets', had not yet been addressed. Sandra stated that Tiptree Close, opposite the application site, was a key entrance to Hillside Primary School and was in constant use. Sandra added that the existing angled decline into the drive at Crockers made it a dangerous blind spot to exit from. Sandra felt that the proposal contravened WBC's Climate Emergency Action Plan by not engaging with the local community and stakeholders, whilst policies CP3, CC03, TB21 and TB06 required development to protect and retain existing landscaping features. Sandra added that the proposals was contrary to policy TB06 in that it would result in the loss of residential garden with relatively little provision of replacement of soft or green landscaping. Sandra commented that a TPO was applied to the site in 2022, requiring seven important trees and an important group of trees be retained. Sandra added that there was no protection for the existing essential hedgerow which provided screening, whilst the TPO of several trees could not effectively be protected from damage via construction work to the driveway. The existing hedgerow provided habitat, shelter, corridors, rest spaces and safety for a wide range of wild birds and animals in addition to providing screening for neighbours, and destruction of this green corridor would result in wildlife not returning for many years. Sandra stated that 14 properties bordered the quiet site, and the addition of 9 dwellings would lead to an unacceptable intrusion of privacy and

amenity for existing residents. Sandra felt that the development of 9 properties, some of which could be up to three storeys in height, would radically alter the character of the area. Sandra asked that the Committee defer the application in order to conduct a site visit.

Daniel Thompson, agent, spoke in support of the application. Daniel stated that many of the issues raised by objectors would be considered in detail at the reserved matters stage, should outline permission be granted. Daniel added that the WBC highways team had initially objected to the application, however this had been withdrawn following a revision to the scheme and suitable conditions, subject to further detail at the reserved matters stage. Daniel stated that the density of the proposed development sat at the lower end of the scale of the density of the surrounding developments. Daniel was of the opinion that three storey properties were found within the surrounding area, and could be viewed via 'street view'. Regarding landscaping, Daniel commented that this was to be dealt with at the reserved matters stage. However, to validate the application, a tree survey was carried out which identified Grade B trees on the site, and the focus of the landscaping solely focussed on those elements specifically required for this outline application. Daniel added that removal of any Grade B tree would result in its replacement with two good quality trees and a management plan to ensure their survival. Daniel stated that all other landscaping decisions, including the fantastic existing hedgerow, had not been resolved as this was only an outline application. Daniel added that access to the site was existing, with development taking place around the site. Daniel concluded by stating that all relevant details would be presented at the reserved matters stage, subject to approval of this outline application.

Pauline Jorgensen, Ward Member, spoke in objection to the application. Pauline stated that a reduction in the proposed amount of properties from 10 to 9 was welcome, however serious concerns still remained that this area could not accommodate this level of development. Pauline stated that the planned access did not meet highways standards and had not changed as it was almost directly opposite to Tiptree Close rather than having a 30m offset, whilst it also appeared to be very narrow with no pavement, which would make it difficult for cars to pass or refuse vehicles to access the site. Pauline noted that the landscaping officer had raised concerns regarding the loss of TPO trees when the access was widened. Due to the proximity of the site to Hillside Primary School, the area already experienced issues relating to parking. Pauline felt that it would not be necessary to remove the TPO tree should the proposed number of dwellings be further reduced, allowing more space to access the site. Pauline was of the opinion that the site was cramped, would not provide a public open space, and would leave residents with an unattractive and largely hardstanding fronting. Pauline stated that plots 1, 9, and 6 did not meet standards, whilst she did not understand how one plot having a longer plot mitigated other gardens with smaller spaces. Pauline felt it essential that existing hedging was retained, whilst the development should not be allowed to accommodate three storey dwellings.

Caroline Smith, Ward Member, spoke in objection to the application. Caroline asked that the Committee undertake a site visit during school pickup time to understand issues relating to access, parking and safety. Caroline added that permanent traffic calming measures had recently been installed on this busy road outside of Hillside Primary School. Caroline stated that if this was a new estate, creation of a crossroad with no refuge on a busy road would not be acceptable. Caroline added that the site had mature hedgerows and TPO trees, and the tree at the entrance to the site would have to be removed in addition to much of the greenery at the site. Caroline commented that much of the wildlife inhabiting the site, which at present was very vibrant, would be lost as a result of this

development. Caroline raised concerns regarding the proposed proximity of the new dwellings in relation to existing properties, especially if some of the proposed dwellings were to be three storeys in height.

Andrew Mickleburgh stated that there were a number of concerns in relation to this application, including access, TPO trees and landscaping, site elevation and its relation to surrounding properties, and whether up to 9 homes could be accommodated on site. Whilst some of these issues would be considered at the reserved matters stage, should outline approval be granted, Andrew suggested that a site visit would allow the Committee to more fully appreciate the context of the site.

Stephen Conway regretted that this was an outline application, as it would facilitate the principle of development in the absence of detail.

David Cornish stated that whilst he had sympathy for residents, this site was located within a major development area and WBC was required to deliver more homes. David queried whether 9 homes was the maximum that could be built on the site if the application was approved. Benjamin Hindle, case officer, stated that a maximum of 9 homes could be delivered via this outline permission should it be granted.

Wayne Smith commented that approval of this outline application, and establishment of a principle of development, could make it easier for a future application to be lodged to propose an increase over and above 9 dwellings.

Alistair Neal was of the opinion that 9 dwellings may constitute overdevelopment of the site.

Andrew Mickleburgh proposed that the application be deferred, to allow a site visit to be undertaken to facilitate a better understanding of the context of the site. This was seconded by Stephen Conway.

RESOLVED That application 221797 be deferred, to allow a site visit to be undertaken to facilitate a better understanding of the context of the site.

117. APPLICATION NO.213610 - HATCHGATE AND KENTONS, KENTONS LANE, UPPER CULHAM, RG10 8NU

This application was withdrawn from the agenda.

118. APPLICATION NO.213587 - STROWDES, UPPER CULHAM LANE, REMENHAM, RG10 8NU

Proposal: Proposed erection of 1no. detached dwelling with associated landscaping.

Applicant: C/O Avison Young, Bristol.

The Committee considered a report about this application, set out in agenda pages 185 to 228.

The Committee were advised that there were no updates contained within the Supplementary Planning Agenda.

Stephen Conway stated that whilst, in his opinion, the proposals were not a particularly attractive design, they constituted the same elements as the previously approved scheme.

Stephen Conway proposed that the application be approved as per the officer recommendation. This was seconded by Andrew Mickleburgh.

RESOLVED That application number 213587 be approved, subject to conditions and informatives as set out in agenda pages 205 to 209.

119. APPLICATION NO.230219 - UNIT 31-33, SUTTONS BUSINESS PARK, SUTTONS PARK AVENUE, EARLEY, WOKINGHAM

Proposal: Full planning application for the demolition of existing building and erection of new building to provide new class B2/B8 industrial unit with ancillary office space plus associated storage areas, car parking, access and landscaping.

Applicant: ABRDN

The Committee considered a report about this application, set out in agenda pages 229 to 258.

The Committee were advised that updates contained within the Supplementary Planning Agenda included:

- Removal of condition 4, and renumbering of conditions thereafter;
- Amendment of condition 6 (former condition 7);
- Amendment of condition 11 (former condition 12).

Andrew Mickleburgh commented that this application would help to rejuvenate an important business park. Andrew sought clarity regarding provision of electric vehicle charging points. Graham Smale, case officer, stated that information provided by the applicant indicated that electric vehicle charging points would be provided, however the highways statement stated that this would fall under building control regulation.

Stephen Conway proposed that the application be approved as per the office recommendation, and updates contained within the Supplementary Planning Agenda. This was seconded by David Cornish.

RESOLVED That application number 230219 be approved, subject to conditions and informatives as set out in agenda pages 243 to 249, removal of condition 4 (and renumbering of conditions thereafter), amendment of condition 6 (former condition 7), and amendment of condition 11 (former condition 12) as set out within the Supplementary Planning Agenda.

Agenda Item 7.

Application Number	Expiry Date	Parish	Ward
221797	16/06/2023	Earley	Hillside

Applicant	Mrs. C Burrows
Site Address	"Crookers", Rushey Way, Earley, Wokingham
Proposal	Outline application with all matters reserved for the proposed erection of 9 no. dwellings following demolition of the existing dwelling.
Type	Outline Planning Permission
Officer	Benjamin Hindle
Reason for determination by committee	Listed by Cllr Pauline Jorgensen and Cllr Caroline Smith

FOR CONSIDERATION BY	Planning Committee on Wednesday, 14 th June 2023
REPORT PREPARED BY	Assistant Director – Place

Summary

Application 221797 was deferred on the 10 May 2023 following Members of the Planning Committee's request for site visit to assess the context of the site, including neighbouring amenity, access and green infrastructure. The site visit to the application site and 2no. neighbouring properties is to be carried out on the 9 June 2023.

The original Committee report is appended below as Appendix 1 and the adjoining Supplementary Agenda detailing points of clarity requested by Members of the Planning Committee are appended below as Appendix 2.

Further to matters raised during public speaking and debate at 10 May Planning Committee, further clarity is provided below in relation to comments relating to access, loss of TPO trees, hard landscaping, garden space standards, provision of 3 storey dwellings, biodiversity loss, neighbouring amenities, the applications nature as an outline with all matters reserved and impacts of granting approval to the principle of development.

Access:

Access is a reserved matter and only the broad location is approved within this submission which WBC Highways support in principle. Members will note that the proposed access location is the same as existing. Details of width, length and highways safety is to be considered in a separate Reserved Matters application wherein it can be scrutinised at a latter date in consultation with the Highways Officer who will make an assessment under WBC standards.

Loss of TPO Trees:

The site plan provided is on an indicative basis only, as this Outline planning application as landscape is reserved . Approving this Outline application does not authorise the removal of any TPO Trees as these are protected by separate legislation and will need to be considered under a separate application.

Hard landscape appearance:

As above, landscape is a matter reserved and full details of landscaping will be submitted at a latter date wherein it can be scrutinised in line with adopted policy. Both these elements will be assessed in consultation with the Landscape Officer.

Garden space standards:

The site plan provided is on an indicative basis only and is not an 'approved plan' as appearance, layout and scale are matters reserved which will require a separate application which can be scrutinised at a latter date. The layout provided is on an indicative basis only, which shows the site can accommodate the proposed 9 dwellings. Members please note that the garden depths indicatively shown vary in their scale, with some plots being far above standards, but with minor adjustments which would be expected at Reserved Matters stage the site could accommodate garden depths compliant with the Wokingham Borough Design Guide.

3 Storey Dwellings:

The matters of appearance, scale and layout are reserved and the indicative site plan should not be viewed as exactly what will come forward at Reserved Matters stage. Any future submission will require a detailed assessment which includes how the proposed scale of the dwelling would relate to neighbouring amenity and the character of the area. Approval of this Outline application as recommended does not authorise any 3 storey dwellings and as such, this comment is not material to determination.

Biodiversity Loss:

Landscape, layout and scale are reserved matters which will require a separate application which can be scrutinised at a latter date. Whilst it is anticipated that there will be a degree of biodiversity loss, when applying the tilted balance this is not considered to significantly and adversely outweigh the identified benefits of the scheme as required by Paragraph 11d of the NPPF. These benefits include, amongst others, providing 9 much needed homes in a sustainable location within a Major Development Location.

Neighbouring Amenity:

The matters of appearance, scale, layout and landscape (buffering) are reserved and the site plan is purely indicative to show that the number of dwellings proposed can be accommodated on site. Any future submission will require scrutiny in regard to neighbouring amenity with reference to the LPA's MDD Local Plan, Core Strategy and the recommendations within the Borough Design Guide.

Outline applications:

The Town and Country Planning Act (as amended) established Outline Applications including in 1990 and this application type is fully valid and prescribed nationally. The application's nature as an Outline with all matters reserved cannot hold any material weight, nor prejudice the determination of the application.

Impacts on granting the principle of development:

This application is for 9 dwellings, and any future applications that may follow will be assessed on their own merits. Members please note that notwithstanding the proposal, the site as existing is developed land and a brownfield site, with an approved principle of development for (use class) C3 residential in a major development location.

The application is recommended for approval subject to conditions and informatives as detailed within Appendix 3 below.

APPENDIX 1 – Committee Report 10th May 2023

Application Number	Expiry Date	Parish	Ward
221797	12/05/2023	Earley	Hillside

Applicant	Mrs. C Burrows
Site Address	"Crookers", Rushey Way, Earley, Wokingham
Proposal	Outline application with all matters reserved for the proposed erection of 9 no. dwellings following demolition of the existing dwelling.
Type	Outline Planning Permission
Officer	Benjamin Hindle
Reason for determination by committee	Listed by Cllr Pauline Jorgensen and Cllr Caroline Smith

FOR CONSIDERATION BY	Planning Committee on Wednesday, 10 th May 2023
REPORT PREPARED BY	Assistant Director – Place

SUMMARY
<p>This application relates to the property Crookers, within the major development location of Earley. The proposal seeks to demolish the existing large, detached dwelling and erect 9no. dwellings (net gain of 8no. dwellings). The application is submitted in outline with all matters reserved.</p> <p>The proposal is located within a sustainable location within an existing urban area where the principal of such development is supported. The scheme does however fail to provide the required 2.8 affordable units on site (subject to viability) and therefore is in recognised to be in conflict with policy CP5. However, for reasons outlined in this report, in this instance the identified policy conflict is considered limited.</p> <p>The quantum of development, indicative layout and type of dwellings are considered to be appropriate in terms of the nature and pattern of development in this particular location. The location of the access is considered to be acceptable and design details of the access are a reserved matter. There are no objections from the Highways Officer in relation to the access.</p> <p>The proposal involves the loss of a small number of protected trees. The removal of protected trees would be limited in its extent and the applicant has confirmed that these will be replaced as part of a comprehensive landscaping scheme which would include biodiversity net gain to enhance the ecological and nature environmental features of the site.</p> <p>The NPPF is clear that where development does not result in significant harm and is sustainable, it should be supported. The proposal achieves wider compliance with the overall spatial objectives of the NPPF in significantly boosting the supply of new homes in a sustainable location within the borough.</p> <p>When applying the tilted balance as required by Paragraph 11d(ii), the limited harm caused by the failure to provide a small affordable housing contribution and the loss of a small number protected trees is not considered to significantly and adversely outweigh</p>

those identified benefits associated with the provision of housing within a sustainable location which has an appropriate and safe means of access. Officers are therefore recommending the application for approval, subject to the conditions listed.

RECOMMENDATION

APPROVAL subject to conditions and informatives.

PLANNING STATUS

- Major Development Location
- Electricity sub-station consultation zone
- Potentially contaminated land consultation zone
- Tree Preservation Order
- Thames Basin Heaths - Special Protection Area – 5 and 7 km

RELEVANT PLANNING HISTORY

No relevant planning history

SUMMARY INFORMATION

For Residential

Site Area	0.27 HA
Existing units	1
Proposed units	9
Existing density – dwellings/hectare	3.7
Proposed density - dwellings/hectare	33.3
Number of affordable units proposed	0 units
Previous land use	C3 Residential and residential garden

CONSULTATION RESPONSES

Internal

WBC Property Services – No comments received
WBC Sports Development (Places and Neighbourhoods) -
WBC Environmental Health – No objection subject to conditions
WBC Drainage – No objection subject to conditions
WBC Highways – No objections subject to conditions
WBC Education (School Place Planning) – No comments received
WBC Economic Prosperity & Place (Community Infrastructure) – No objection subject to conditions
WBC Green Infrastructure – Non compliance with TB08 no on or off site public open space.
WBC Landscape and Trees – Objection due to removal of TPO trees
WBC Ecology – No objection subject to conditions
WBC Health and Wellbeing – No comments received
WBC Community Safety – No comments received
WBC Cleaner and Greener – No comments received

External

National Grid – No comments received.

Southern Gas Networks - There should be no mechanical excavations taking place above or within 0.5m of a low/medium pressure system or above or within 3.0m of an intermediate pressure system. You should, where required confirm the position using hand dug trial holes.

SSE Power Distribution – No objections

Thames Water Utilities Ltd – No objections

Berks, Bucks & Oxon Wildlife Trust – No comments received.

NHS Wokingham CCG – No comments received

Crime Prevention Design Advisor – No comments received.

Royal Berkshire Fire & Rescue – No comments to make

Berkshire Archaeology - There is archaeological potential in the wider area, even if little is known nearer to the site, on account of a lack of investigation. Pre commencement conditions recommended

REPRESENTATIONS			
Parish/Town Council	<p>Objection (05/04/2023)</p> <ul style="list-style-type: none"> - Layout does not demonstrate that 9 dwellings can be accommodated on site with suitable access. - No assessment of viability of junction and no transport statement - TPO trees are not retained - Contrary to CP3 & CC03 - Wildlife is not protected - No pre-application consultation - Unacceptable layout and design <p><i>Officer Comment: Layout, appearance, means of access, landscaping and scale are reserved matters and cannot be considered as part of this application. This application considers the principle of development only.</i></p>		
Ward Member(s)	<p>Cllr Jorgensen & Cllr Smith comments on original plans</p> <ul style="list-style-type: none"> - Design and layout – can site accommodate the dwellings - Highways Safety 		
Neighbours	Objections- on revised plan		
	1.	23 Beauchief Close	<ul style="list-style-type: none"> • No Acknowledgement of important hedgerows and trees • Overlooking and loss of privacy
	2.	34 Beighton Close	<ul style="list-style-type: none"> • No recognition of hedgerows on revised plan • Issues on ground levels for plot 1 • Development scale and height issues • Detrimental to the green space • No detail on how the egress will be treated

	3.	11 Steeple Walk	<ul style="list-style-type: none"> • Access to the development is unsuitable • Proposed 3 storey houses are obtrusive • Removal of tress and hedgerows
	4.	Steeple Walk, Reading RG64HR	<ul style="list-style-type: none"> • Increased traffic • Pressure on local community and services • Impact on local wildlife
	5.	18 Wickford Way	<ul style="list-style-type: none"> • 9 houses in less then an acre of space is not viable • Not enough spaces for cars • 3 storey houses do not keep up with the current setting
	6.	5 Steeple Walk	<ul style="list-style-type: none"> • Significant congestion will take place • 3 storey dwellings will impact privacy
	7.	143 Hilmanton Lower Earley	<ul style="list-style-type: none"> • Loss of privacy • Risk of flooding for neighbouring properties • Visual impact • Loss of trees • Effects on wildlife • Traffic issues
	8.	20 Wickford Way	<ul style="list-style-type: none"> • Reducing from 10 to 9 houses will have minimal impact • Impact on vehicle congestion • Impact on local infrastructure
	9.	Beighton Close RG6 4HZ	<ul style="list-style-type: none"> • Proposed properties are obtrusive • Local areas land, stability and drainage will be impacted • Generation of traffic, pollution and parking
	10.	28 Beauchief Close	<ul style="list-style-type: none"> • Height concern for plots 7, 8 and 9 • Access to the plot • Flooding issues • Properties will be intrusive • Loss of wildlife • Overcrowding in the area • Increased traffic

11.	16 Beauchief Close	<ul style="list-style-type: none"> • Pedestrian access will be impacted • Traffic levels • Access remains unimproved • Parking issues • Breach of permitted development • Loss of amenity • Privacy concerns • Increased noise pollution
12.	5 Tiptree Close	<ul style="list-style-type: none"> • Heavy Traffic overflow • Entrance is next to children crossing the road
13.	32 Easby Way	<ul style="list-style-type: none"> • Revise description • Site access does not comply with highway standards
14.	27 Beauchief Close	<ul style="list-style-type: none"> • Hedgerow is vital to importance of the land • Impacts local wildlife • Ground levels and flooding issues • Waste management issues
15.	4 Wickford Way	<ul style="list-style-type: none"> • 3 storey houses do not suit local area • Increased traffic • Lack of parking
Objections on previous plan		
17.	27 Beauchief Close	<ul style="list-style-type: none"> • Comments same as revised plan
18.	21 Beighton Clo Lower Earley	<ul style="list-style-type: none"> • Disappointed with the agent
19.	14 Cambrian Way	<ul style="list-style-type: none"> • Not in keep with current development • Not good for sustainability
20.	16 Beauchief Cl	<ul style="list-style-type: none"> • Comments remain the same on revised plan
21.	34 Beighton Close	<ul style="list-style-type: none"> • Comments same as revised plan
22.	98 Silverdale Road	<ul style="list-style-type: none"> • Loss of trees and hedging • Violates the local plan
23.	28 Beighton Close	<ul style="list-style-type: none"> • Increase in pollution • Detrimental to wildlife • Privacy issues with houses being to close • Parking issues

24.	45 Main Road	<ul style="list-style-type: none"> • Access to the development • 3 storey plots are too high and violate privacy • Effect the great crested newts • Loss of trees
25.	77 Hilmanton RG64HN	<ul style="list-style-type: none"> • Infrastructure will not support the development • 3 storey houses result in loss of privacy
26.	2 Tiptree Close	<ul style="list-style-type: none"> • Excessive number of homes • 3 storey houses do not keep up with the area • Traffic congestion
27.	25 Ryhill Way	<ul style="list-style-type: none"> • Violates the council's climate emergency plan • Loss of trees and hedges • Privacy issues of plots 7, 8 and 9
28.	90 Hilmanton	<ul style="list-style-type: none"> • Space for development is too small • Access issues • Developers maximising profits with no concern for local community
29.	159 Hilmanton	<ul style="list-style-type: none"> • Safety for school children • Detrimental to quality of life • Air pollution issues
30.	5 Wickford Way Lower Earley	<ul style="list-style-type: none"> • loss of trees • Objects to erection of 3 storey houses
31.	1 Hilmanton	<ul style="list-style-type: none"> • Not in keep with surrounding properties • Issues with road access • Inadequate space for parking • Loss of privacy
32.	9 Tiptree Close	<ul style="list-style-type: none"> • Density of development is too much • Access to the site will cause congestion • Parking issues
33.	5 Steeple Walk	<ul style="list-style-type: none"> • Comments same as revised plan
34.	11 Steeple Walk	<ul style="list-style-type: none"> • Comments same as revised plan

	35.	96 Hilmanton	<ul style="list-style-type: none"> • Not in keep with the area • Increased cars and parking • More school children attending an overpopulated school • Loss of trees • Burden to local GP
	36.	16 Tiptree Close	<ul style="list-style-type: none"> • Access to the road will be an issue • Development is overlooking • Landscaping problems • Inadequate parking
	37.	3 Steeple Walk	<ul style="list-style-type: none"> • Increased pollution levels • Visual amenity
	38.	11 Tiptree Clos Lower Earley	<ul style="list-style-type: none"> • Highway safety issues • Overdevelopment of the area • Loss of trees
	39.	2 Wickford Way	<ul style="list-style-type: none"> • Significant traffic • Lack of parking • Tree destruction • More school places • 3 storey houses • Overlooking • Not keeping within local setting
	40.	7 Tickhill Close	<ul style="list-style-type: none"> • Issues with increased housing • Lack of privacy • Increased congestion
	41.	2 Steeple Walk	<ul style="list-style-type: none"> • Inadequate access and highway safety • Inappropriate design • Privacy issues due to high buildings • Loss of trees • Local services already too stretched
	42.	25 Beauchief Close	<ul style="list-style-type: none"> • 10 proposed dwellings for 1 current dwelling • Safety and access issues
	43.	245 Rodway Road	<ul style="list-style-type: none"> • Too many houses being built • Buildings should be reduced in height • Doctors surgery is overstretched
	44.	22 Carshalton Way	<ul style="list-style-type: none"> • Not enough doctors to deal with increased persons

		<ul style="list-style-type: none"> • Trip to pharmacy will be redirected to a telephone conversation
45.	20 Wickford Way Lower Earley	<ul style="list-style-type: none"> • Not in keep with the surrounding area • Increase of 20 cars • Safety issues with regards to primary school • Local GP stretched out
46.	15 Tiptree Close	<ul style="list-style-type: none"> • Density of the development is too much • Road positioning issues • Reduction of green space • No increased infrastructure to deal with the development
47.	15 Beauchief Close	<ul style="list-style-type: none"> • 3 storey properties will look overlook
48.	30 Beighton Close	<ul style="list-style-type: none"> • Removal of laurel cherry hedge • Removal of 36 trees
49.	20 Beighton Close	<ul style="list-style-type: none"> • Inevitable lack of privacy • 3 storey buildings inconsistent with local upkeep • Inadequate access • Inappropriate design and density • Loss of habitats • Loss of trees
50.	17 Beauchief Close	<ul style="list-style-type: none"> • Proposed properties above ground of local properties • Burden on sewer and water works • Congestion issues
51.	23 Beauchief Close	<ul style="list-style-type: none"> • Comments same as revised plan
52.	143 Hilmanton	<ul style="list-style-type: none"> • Loss of privacy • Visual impact to local community • Loss of trees • Effects on wildlife • Traffic congestion • Local services will be stretched
53.	2 Beighton Close	<ul style="list-style-type: none"> • Issues with parking • 3 storey houses are not in keeping with local houses

		<ul style="list-style-type: none"> • Loss of both light and privacy • Proposed building is effectively a back garden
54.	Tiptree Close RG64HS	<ul style="list-style-type: none"> • Shocked at the proposal of 10 houses for 1 • Over 20 new cars on the road • Loss of trees
55.	Planters Lodge	<ul style="list-style-type: none"> • 3 storey houses have inadequate garden length • Access to the road • Large amount of hard standing • Parking will be overwhelmed • Destroying lung supporting wildlife
56.	1 Catcliffe Way	<ul style="list-style-type: none"> • Dangerous for a busy road • 3 storey houses are not in keep with the surrounding area
57.	34 Beighton Close	<ul style="list-style-type: none"> • Comments same as revised plan
58.	21 Beighton Close	<ul style="list-style-type: none"> • The intensive development of the plot is not in keeping with the local area • Properties will be overlooking • Destruction of the natural environment • Generation of traffic • Local services will be stretched
59.	26 Beighton Close	<ul style="list-style-type: none"> • Access route will be too busy • Proximity of proposed properties are too close to each other • Not enough space for development
60.	24 Beighton Close	<ul style="list-style-type: none"> • Size and scale is too much for 1 existing property • Detrimental effects on wildlife • Parking issues
61.	5 Beauchief Close	<ul style="list-style-type: none"> • 10 houses will cause too much congestion • Will affect the peacefulness of the community

	62.	32 Easby Way	<ul style="list-style-type: none"> • Comments same as revised plan
	63.	17 Beauchief Close	<ul style="list-style-type: none"> • Issues with new types of trees and foundations of our house • Will need to maintain more tree branches
	64.	12 Beighton Close	<ul style="list-style-type: none"> • Overcrowding in the area • Proposed windows would look into my property

PLANNING POLICY		
National Policy	NPPF	National Planning Policy Framework
	NPPG	National Planning Practice Guidance
	NDG	National Design Guide
Adopted Core Strategy DPD 2010	CP1	Sustainable Development
	CP2	Inclusive Communities
	CP3	General Principles for Development
	CP4	Infrastructure Requirements
	CP5	Housing mix, density and affordability
	CP6	Managing Travel Demand
	CP7	Biodiversity
	CP8	Thames Basin Heaths Special Protection Area
	CP9	Scale and Location of Development Proposals
	CP10	Improvements to the Strategic Transport Network
	CP11	Proposals outside development limits (including countryside)
	CP12	Green Belt
	CP13	Town Centres and Shopping
	CP14	Growth and Renaissance of Wokingham Town Centre
	CP15	Employment Development
	CP18	Arborfield Garrison Strategic Development Location
Adopted Managing Development Delivery Local Plan 2014	CC01	Presumption in Favour of Sustainable Development
	CC02	Development Limits

	CC03	Green Infrastructure, Trees and Landscaping
	CC04	Sustainable Design and Construction
	CC05	Renewable energy and decentralised energy networks
	CC06	Noise
	CC07	Parking
	CC09	Development and Flood Risk (from all sources)
	CC10	Sustainable Drainage
	TB05	Housing Mix
	TB07	Internal Space standards
	TB12	Employment Skills Plan
	TB21	Landscape Character
	TB23	Biodiversity and Development
	TB24	Designated Heritage Assets
Supplementary Planning Documents (SPD) / other		Borough Design Guide – Section 4

PLANNING ISSUES

Outline Applications:

1. The application has been submitted in outline, with all matters reserved, therefore the principle of development in this location can only be assessed.
2. Information about the proposed use or uses, and the amount of development proposed for each use, is necessary to allow consideration of an application for outline planning permission. An application for outline planning permission must indicate the area where access points to the development will be situated regardless of whether access is reserved.
3. Unless the applicant has indicated that those details are submitted “for illustrative purposes only” (or has otherwise indicated that they are not formally part of the application), the local planning authority must treat them as part of the development in respect of which the application is being made; the local planning authority cannot reserve that matter by condition for subsequent approval.

Background Information:

4. The scheme originally applied for was for up to 10 dwellings, a revised plan was received on 13 March 2023 reducing the scheme to 9 dwellings only. This would constitute a net gain of 8 dwellings.

Site Description:

5. The site is located within a major development location. It is 0.27ha in area and occupied by a part-single, part two-storey, flat-roofed dwelling built in the 1960s. Access is via Rushey Way. It is surrounded by more suburban residential estates, including those built in the 1980's, with Tiptree Close opposite the access point and fourteen dwellings on Rushey Way, Beighton Close and Beauchief Close bordering the site's perimeter.
6. Bus stops are approximately 50m and 127m away from the current access point for each direction and the services link to Reading town centre and mainline station: a 30 minute bus journey from the site. Numerous services and facilities are within a 0.5-1km walking distance from the site including a primary school, leisure centre and superstore.
7. A number of the trees on the site are protected by a Tree Protection Order (ref: TPO-1890-2022).

Proposal:

8. This application proposes the demolition of the existing dwelling and its replacement with 9 dwellings (8 net additional dwellings).

Principle of Development:

9. Section 38(6) of The Planning and compulsory purchase Act 2004 requires that applications for planning permission be determined in accordance with the Development Plan unless material considerations indicate otherwise. In this case the Development Plan comprises the Core Strategy (CS), the Managing Development Delivery Local Plan (MDD) and Central and Eastern Berkshire Joint Minerals and Waste Plan (Joint Plan) (2023) which are read alongside the NPPF.
10. The MDD Local Plan policy CC01 states that planning applications that accord with the policies in the Development Plan for Wokingham Borough will be approved without delay, unless material considerations indicate otherwise.

Core Strategy (CS), the Managing Development Delivery Local Plan (MDD)

11. Policy CC02 of the MDD Local Plan sets out the development limits for each settlement as defined on the policies map. Policy CP9 of the CS sets out that development proposals located within development limits will be acceptable in principle, having regard to service provisions associated with the major, modest and limited categories.
12. The application site is located in a sustainable location within a major development location and within a settlement boundary; as such, the principle of the development is acceptable providing it complies with local and national policy and there are no other material considerations which dictate otherwise.
13. CS policy CP3 states that development must be appropriate in terms of its scale of activity, as layout, built form height, materials and character to the area in which it is

located and must be of a high-quality design without detriment to the amenities of adjoining land uses and occupiers. The appearance, means of access, landscaping, layout and scale of development are reserved matters and cannot therefore be considered until a reserved matters application for each matter is submitted.

Emerging Local Plan Update:

14. The Local Plan Update (LPU), the plan which will supersede the adopted Core Strategy and Managing Development Delivery (MDD) local plans, is at the consultative stage of preparation. To date, the council has consulted on two draft strategies for the LPU: the Draft Plan (2020) and the Revised Growth Strategy (2021). The emerging local plan is at an early stage in preparation and supporting evidence has been challenged and will be reviewed. Therefore, the LPU is afforded little weight in the overall balance.

Minerals and Waste Local Plan:

15. The Central and Eastern Berkshire Joint Minerals and Waste Plan (Joint Plan) was adopted by Wokingham Borough Council on 19 January 2023. The Joint Plan identifies site allocations and extensions to help provide a future supply of sand and gravel extraction. However, despite these allocations, there remains a shortfall of supply during the plan period. The policy response to address the shortfall is the identification of a 'Minerals Safeguarding Area' (MSA), where Policy M2 of the plan applies, and also an 'Area of Search' where Policy M4 applies. This approach is to demonstrate the potential for, in effect, windfall provision within the Plan area.
16. The site is located outside the MSA and therefore it is not considered commercially viable or suitable for prior extraction and removal.

NPPF and Housing land supply position:

17. The latest published assessment of housing land supply concluded a deliverable supply of 3.95 years as of the 31 March 2022.
18. The National Planning Policy Framework (NPPF) states under paragraph 11 that where a local planning authority is unable to demonstrate a five-year supply of deliverable housing sites, the most important policies relating to the application may be viewed as being out of date. It continues to advise that unless there are specific policies in the NPPF protecting the land subject to the application, that permission should be granted unless the adverse impacts of doing so would significantly and demonstrably outweigh the benefits when assessed against the NPPF. This presumption in favour of sustainable development outlined in paragraph 11 of the NPPF is commonly referred to as the 'tilted balance' as harm and benefits are not weighed equally, but tilted according to paragraph 11(d)ii).
19. The statutory status of the development plan as the starting point for decision-making. This is set out clearly in paragraph 12 of the NPPF and is a matter of law.
20. In considering the weight to be attached to the various benefits and adverse impacts of a proposed development under the NPPF and the development plan, any planning application must be considered in context.

21. Material to decisions on planning applications involving housing is the underlying reasons for the shortfall in deliverable housing sites.
22. The shortfall is not as a result of non-delivery of housing but due to the significant over delivery in recent years reducing the bank of land with extant planning permissions.
23. All evidence and assessments show that whether the housing target is defined through the requirement set out in the Core Strategy or the outcome of the standard method set out in national Planning Practice Guidance, delivery has significantly exceeded the target. If over delivery were taken into account over the whole Core Strategy plan period or since the introduction of the standard method, there would be no shortfall over the coming five years with over delivery significantly exceeding the shortfall.
24. In this context, the weight to be attached to the benefits of additional housing under paragraph 11 of the NPPF should be moderated. This reflects the approach set out in the Willow Tree House (Application ref 203560, Appeal ref: APP/X0360/W/21/3275086), Land at Baird Road (Application ref 202303, Appeal ref APP/X0360/W/21/3276169) and Land to the west of St Anne's Drive and south of London Road (Application ref 203544, Appeal ref APP/X0360/W/22/3297645) appeals, where the Inspectors only applied moderate weight to the provision of additional housing.
25. In the case of the former two appeals, the Inspector continued to consider the adverse impacts and dismissed the appeals. In the case of land to the west of St Anne's Drive, the Inspector acknowledged the Council's strong record of housing delivery, which he concluded could be said to have significantly boosted the supply of housing. Given this strong record of housing delivery performance, the Inspector noted:

'Under these circumstances, I consider that moderate weight is attributed to the modest contribution that the appeal scheme would make towards housing land supply in the area and reducing the shortfall in the 5-year supply of deliverable housing sites, which is itself limited.'(paragraph 45)
26. These three appeals were all determined before the most recent housing land supply statement was published. Based on the previous housing land supply statement, housing land supply was considered by the Inspectors to be between 4.34 to 4.92 years.
27. Nevertheless, this conclusion was reinforced by an Inspector following a very recent appeal decision at Land East of Lodge Road, Hurst (Application ref: 220458, Appeal ref APP/X0360/W/22/3309202) and was determined using the most recent housing land supply statement. The Inspector noted:

Even though the Council is currently unable to demonstrate a deliverable 5-year HLS, falling short by some 863 dwellings, I do not consider it reasonable to ignore the bigger picture, which is that there is a very strong likelihood that the Council will achieve a significant oversupply of dwelling completions over the whole Core Strategy period. To my mind this does not signify a Council that is failing in terms of housing provision, but rather one which is performing well and managing to boost the supply of housing over that which it planned for'(paragraph 32).

28. Completions data therefore continues to demonstrate high levels of housing delivery, and housing supply continues to be significantly boosted and should be weighed in the planning balance.
29. Any future application must be considered in line with paragraph 11(d) of the National Planning Policy Framework. This advises that the policies which are most important for determining the application should be deemed out of date and that permission should be granted unless:
 - i. The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed;
 - ii. Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.
30. Firstly, in considering i), it must be recognised that the proposed site is not located within any protected areas or assets of particular importance (as outlined above and within footnote 7 and paragraph 181 of the NPPF).
31. Acknowledging the requirements of paragraph 11(d)ii) and the titled balancing exercise which must be undertaken as a result of paragraph 11 being engaged, the underlying reasons for the shortfall in deliverable sites must be recognised. Notwithstanding this, under Paragraph 11d(ii) the LPA required to consider the proposal against the policies in the NPPF taken as a whole.
32. The NPPF support the Government's objective of significantly boosting the supply of homes. Paragraph 69 recognises the important role small and medium sized sites can make in contributing to meeting the housing requirement of an area and are often built out relatively quickly. This goes on to encourage LPAs to support the development of windfall sites through their decisions and give **great weight** (officer emphasis) to the benefits of using suitable sites within existing settlements for homes. This includes working with developers to encourage the sub-division of large sites where this could help to speed up the delivery of homes.
33. Paragraph 105 identified the importance of development being focused within locations which are sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health.
34. Paragraph 119 is clear that decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Paragraph 124 goes on to state that "decisions should support development that makes efficient use of land, taking into account: a) the identified need for different types of housing and other forms of development, and the availability of land suitable for accommodating it;"
35. In light of the above, this proposed development supports the overarching aims housing delivery, sustainable transport and the efficient use of land as identified within the framework, and this is afforded great weight in the overall balance.

Affordable Housing:

36. Policy CP5 of the Core Strategy requires all residential proposals of at least 5 dwellings or a net site area of at least 0.16 within development limits has to provide a minimum of 35% affordable housing where viable.
37. The Council's Affordable Housing Supplementary Planning Document (SPD) July 2013 provides further guidance on its approach to securing affordable housing through the planning process. It sets out, subject to viability, the minimum percentages of affordable housing sought on site by land type and location. It also explains that, for the avoidance of doubt, any application for dwellings exceeding the thresholds in Policy CP5, including mobile home sites, will need to deliver affordable housing in line with the Core Strategy.
38. However, this policy and the guidance contained within the SPD pre-dates the publication of the National Planning Policy Framework (NPPF), including latest 2021 version by some time. Paragraph 64 of the Framework requires that the provision of affordable housing should not be sought for residential developments that are not major developments (10 or more dwellings), other than in designated rural areas (where policies may set out a lower threshold of 5 units or fewer).
39. The Planning Practice Guidance (PPG) states specifically that planning obligations for affordable housing should only be sought for residential developments that are major developments. The PPG confirms that the Community Infrastructure Levy (CIL) is the most appropriate mechanism for capturing developer contributions from small developments.
40. The background to this national approach is the Government's desire to incentivise house building in recent years, particularly for smaller sites and local builders. Introduced formally in 2014, this requirement was subject to a number of legal challenges and appeals which meant that it only became set into the PPG in 2016. However, it was still up to the decision maker (the local planning authority) to decide how much weight should be given to the national policy in light of local circumstances. Further updates to the NPPF have reaffirmed the Government's view that contributions should not be collected from developments of less than 10-units. These amendments significantly strengthened the Government's position on affordable housing thresholds, and it is now a material planning consideration the LPA must have due regard to.
41. In addition to the above inconsistency with the Framework, as discussed earlier in this report, the Council is currently only able to demonstrate that it has 3.95 years' supply of deliverable housing land rather than a minimum five-year supply required. Subsequently, Policy CP5 and accompanying guidance is not only inconsistent with the framework and predates it; but is recognised as being out-of-date in accordance with Paragraph 11 of the NPPF, as it sits alongside those other identified policies which are considered most important for determining applications for new housing. The above position has been reinforced via a number of recent appeal decisions on smaller sites whereby it was concluded that although applicable, Policy CP5 carries limited weight, and affordable housing was not sought.
42. It is recognised that in Wokingham Borough the ratio between house prices and earnings is higher than then national average. An assessment undertaken as part of

the evidence base to support the emerging local plan update in 2020 identified a need of 407 affordable dwellings per annum over the period 2018-36.

43. This information has been discussed at several appeals, but because the local plan update remains at a consultative stage, appeal inspectors refer to adopted planning policies set out in the development plan. Considering the changes in national planning policy and recent appeal decisions, the Council remains very vulnerable to challenges when requesting affordable housing on sites providing less than 10 dwellings.
44. Therefore, with due regard to the above conclusions it is considered necessary to only afford the requirements of Policy CP5 limited weight in the overall planning balance. This however does not affect its assessment as the starting point as required by Section 38(6) of The Planning and Compulsory Act 2004.
45. Part of the application site is considered Previously Developed Land -within the settlement limit (on the basis that the NPPF definition of Previously Developed Land excludes "*land in built-up areas such as residential gardens*"). It is noted that the minimum requirements for affordable housing is lower (20%) for previously development land (the part of the site comprising the dwelling itself).The site is approximately 0.27ha and would result in the net gain of approximately 8 dwellings. For a proposal of this scale, 2.8 units (a contribution of 35%) would be required to be secured as affordable in the first instance.
46. No affordable housing is proposed, nor has any viability information been submitted with the application. Therefore, the scheme results in an initial conflict with the requirements of Policy CP5. However, this proposal must also be viewed in terms of its wider contribution to the current affordable housing needs of the borough (407 dwellings per year). The scheme would in effect deliver approximately 0.68% of the total annual affordable housing need and would therefore make a negligible contribution to supply. However, in the context of under-delivery over a number of years, this very limited contribution would still be a benefit, albeit a modest one.
47. Despite there being a significant affordable housing need in the borough, those policies most relevant for delivery of housing, including CP5, are out-of-date in accordance with Paragraph 11 of the NPPF given the housing land supply position. Recent appeal decisions highlight the risk of challenge at appeal should the LPA request affordable housing from sites of this particular size. Finally, the very limited contribution this particular site could make to the needs of the borough must also be recognised in establishing the level of harm caused because of non-compliance. As such it is concluded that the overall harm arising from the in conflict with policy CP5 is very limited.
48. This conflict is reduced further as a consequence of the proposal's wider compliance with the overall spatial objectives of the NPPF in significantly boosting the supply of new homes in such a sustainable location within the borough as identified earlier in the report. The harm caused by the failure to comply with the requirements of CP5 must therefore be carefully considered in the overall planning balance against the wider merits of this scheme.

Garden Development:

49. The Council will resist inappropriate development of residential gardens where development would cause harm to the local area.
50. Policy TB06 of the MDD Local Plan with regard to the development of private residential gardens. Part 2 states that:

Proposals for new residential development that includes land within the curtilage or the former curtilage of private residential gardens will only be granted planning permission where:

- i. The relationship of the existing built form and spaces around buildings within the surrounding area;*
 - ii. A layout which integrates with the surrounding area with regard to the built up coverage of each plot, building line(s), rhythm of plot frontages, parking areas”*
 - iii. Existing pattern of openings and boundary treatments on the site frontage*
 - iv. Providing appropriate hard and soft landscaping, particularly at site boundaries.*
 - v. Compatibility with the general building height within the surrounding area*
 - vi. The materials and elevational detail are of high quality, and where appropriate distinctive and/ or complementary*
51. As all matters are reserved, these aspects will be assessed at reserved matters stage, however the indicative plan indicates a form of development that fits within the context of the surrounding area including the relationship of the built form, plot sizes.

The policy continues to state that:

- b) The application site provides a site of adequate size and dimensions to accommodate the development proposed in terms of the setting and spacing around buildings, amenity space, landscaping and space for access roads and parking*
 - c) The proposal includes access, which meets appropriate highway standards*
 - d) The proposal does not lead to unacceptable tandem development*
 - e) The design and layout minimises exposure of existing private boundaries to public areas and avoids the need for additional physical security measures*
52. The proposed development is considered to be of an adequate size to accommodate 8 additional dwellings and meets appropriate highways standards in terms of the location of the access (the design details of the access are a reserved matter). The proposal does not lead to tandem development; the site fronts the road and the existing dwelling is not being retained. The indicative plans indicate a cul-de-sac layout development which is commonplace in this location.

Character of the Area:

53. Section 12 of the NPPF 'Achieving well-designed places', reinforces the importance of good design in achieving sustainable development, by ensuring the creation of inclusive and high-quality places. Paragraph 130 of the NPPF includes the need for new design to function well and add to the quality of the surrounding area, establish a strong sense of place, and respond to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change.
54. The Government's National Design Guide 2019 (NDG) is clear that well-designed places contribute to local distinctiveness. This may include introducing built form and appearance that adds new character and difference to places. Design & Appearance is a reserved matters and cannot be considered at this stage, a contextual analysis is important to understand the prevailing character of the area and consider whether the proposal is able to respond positively to any distinctive features.
55. The site is surrounded by 1970's and 1980's suburban estates, arranged predominantly in cul-de-sacs. As such there is limited residential frontages onto main distributor roads like Rushey Way within the estates. The density of the immediate cul-de-sacs adjoining the application site range from 27-27 dwellings per hectare.
56. The introduction of an additional small cul-de-sac is considered to be in keeping with the existing residential character of this area and is consistent with the predominant form of development in the area. The introduction of residential frontages on Rushey Way is considered a positive aspect of the scheme, with active frontages providing activity, surveillance and interest, thereby contributing to attractive streets and sense of place in accordance with the NDG.
57. The level of development proposed (9 dwellings) is considered modest and at this scale in this location would not represent an overdevelopment of the site. The proposal would result in the net gain of 8 dwellings within the Borough with adequate space retained between dwellings and neighbouring properties as well as adequate gardens and parking provision. The NPPF is clear in its need for decisions promote an effective use of land in meeting the need for homes. It is considered that this proposal would comply with this objective on a site located within an existing urban area.
58. On this basis, the proposed development is realistically considered to be able to achieve a considerate relationship with the existing buildings and will not result in an adverse impact the character and appearance of the area in accordance with CP1, CP3 and the WBC Design Guide.

Design/climate change:

59. Policy CC04 of the MDD Local Plan and the Sustainable Design and Construction SPD require sustainable design and conservation and R21 of the Borough Design Guide SPD requires that new development contribute to environmental sustainability and the mitigation of climate change.

60. Paragraph 153 of the NPPF requires local plans to “*take a proactive approach to mitigating and adapting to climate change...*” which footnote 53 makes clear should be in line with the Climate Change Act 2008 and Paragraphs 157 – 158 deal with individual development and emphasise the importance of energy efficient, low carbon development.
61. It is acknowledged that there may be some environmental benefits to replacing a building in disrepair, however, the energy used to construct a new building can dwarf the energy saved over its useful life. For this reason, it is preferable to adapt existing buildings rather than demolish and replace wherever possible since, even when derelict, a building represents a considerable store of embodied energy. Whilst, no specific design or materials have been proposed or agreed at this stage, 9 new dwellings replacing a single dwelling within the existing housing stock will need to demonstrate an inherent compliance with the most up-to-date energy efficiency stands and building regulations through the reserved matters submission.
62. Any future reserved matters application considering design will be expected to take maximum advantage of sunlight and make use of recycled or sustainable building materials, building insulation, energy efficient and water saving appliances (such as an energy efficient gas powered boiler), photovoltaic panels, compost facilities and cycle storage as well as water butts and soak-aways for rainwater reuse, permeable car parking surfaces and maximisation of soft landscaping for natural infiltration.
63. Overall, there exists a very strong legislative and policy basis for planning decisions to be taken with Climate Emergency considerations at their heart. WBC expects that any new dwelling should meet the requirements set out in the Climate Change Interim Policy Position Statement Wokingham Borough Council (December 2022).

Trees and Landscape:

64. The local area comprises residential development predominantly consisting of cul-de-sacs of properties on relatively modest plots with limited landscaping. The prevailing pattern of development in the area is urban and most boundary treatments comprise fences or walls rather than vegetation or hedgerows. Although there are many protected trees on the site, these are set back within the site and do not contribute to the street scene and the prevailing urban context of the area.
65. Arboricultural Report by Duckworths Arboriculture and dated July 2022 which provides details of the existing tree resource within the site. The indicative plan indicates that three trees are to be removed and replacement trees will be planted.
66. The Trees and Landscape Officer has raised objections to the removal of the trees on the site and considers that the trees shown on to be retained cannot be successfully retained given the proposed development. The WBC Trees Officer makes a number of observations in relation to the TPO trees:
67. T005 – they state that this tree is unlikely to be retained following widening of the access.
68. Given there is an existing access adjacent to the tree which does not appear to be harming it and the access details remain a reserved matter, the design of the widened access cannot be considered. Without details of the widened access the Council

cannot evidence that its alteration will harm this tree. The Applicant's intention is to retain this tree and there is nothing to suggest that this is not feasible or how a widened access would be detrimental to the health of the tree given the existing presence of hardstanding in its RPA.

69. T007 – They state that the location of plot 1 will be located within a significant proportion of the RPA of this tree and will also require its canopy to be raised.
70. There is a minor incursion of dwelling 1 into the RPA. The location of the properties is indicative and dwelling 1 may be in a different location at reserved matters stage.
71. T014, T021 & T024 – of the three trees shown to be retained, only one forms part of G1 of the TPO where there are four protected trees within this group.
72. These trees are located within the garden of Plot 2 and the two silver birch trees to be removed (part of the TPO G1)
73. T026 - It is likely that this tree can be retained as part of the indicative layout.
74. This is not considered to be an objection.
75. T030 - A large significant Silver Birch in the rear garden of the existing dwelling cannot be retained within the current layout. It is not clear why the layout could not be designed around the tree to create a landscape focal point between dwellings
76. Layout is a reserved matter and therefore it may be that the Silver Birch tree will be retained in any reserved matters scheme. It is also noted that this tree is currently within an existing patio and the existing dwelling is within its root protection area.
77. T032 & T044 – Are likely to be retained successfully as part of the proposed layout.
78. This is not considered to be an objection.
79. Beech hedge (G031) – This has been requested to be retained for screening to other dwellings in /out of the site.
80. Landscaping is a reserved matters and it is likely that any future reserved matter scheme will have a boundary treatment to separate the dwellings therefore this is not considered to be a material consideration.
81. Overall, the Trees and Landscape Officer objects to the proposal due to the inability to retain all trees on site; the Applicant has indicated that any trees that are removed will be replaced and this can form a condition of any approval. The NPPF paragraph 131 recognises that trees cannot be retained in every circumstance for all developments. The trees on site are not considered to be veteran trees and therefore not considered to be irreplaceable habitat therefore 180 of the NPPF does not apply in this instance.
82. Whilst some tree removal would be required for the development to proceed, this would be limited in its extent which would result in minimal harm to the urban character and appearance of the site.

Public Open Space:

83. TB08 states that proposal for residential development will need to demonstrate how they meet the standards set out in the policy table.
84. The site is small and cannot physically provide or appropriately accommodate open space, indoor or outdoor play or sport/recreational facilities. The indicative plan indicates a small area of open space between plots 6 and 7 within the site which would contribute to the requirements of TB08 although it has not been formally laid out for any purpose.
85. There are opportunities for recreation and outdoor space in close proximity to the site, with Chalfont Park and facilities less than 200m walk providing high-quality amenity space for the enjoyment of future occupiers. On this basis, it is considered that the scheme affords adequate public open space for occupiers.

Highway Access and Parking Provision:

86. The layout is indicative and access is a reserved matter, meaning that the access could be changed. However, the indicative plan shows that the access would be provided in the same location as existing.
87. The layout also indicates the parking provision for each dwelling which would be provided through driveway spaces and some with integral garages. Conditions for cycle parking, vehicular parking and EVC charging are recommended.
88. The Highways Officer has advised that the indicative access and parking provision is acceptable, however the design details of the access including width, visibility splays, swept path analysis, and the design must be informed by a road safety audit. This should be controlled via conditions.

Neighbouring Amenity:

89. At this stage, the proposal must demonstrate that the amount of development (9 dwellings) can be accommodated without significant impact on residential properties in terms of overlooking, overbearing and ,loss of light.
90. The indicative layout shows the 9 dwellings on the site with some properties fronting Rushey Way and others in a cul-de-sac configuration. The properties are set away from the site boundaries and have adequate garden sizes. Due to their location, orientation and spaces between properties, it is considered that the site could accommodate the number of dwellings proposed without any harmful impact on neighbour amenity.
91. As this is an outline application and scale, layout and appearance are a reserved matters, the detailed assessment of neighbour amenity would need to be assessed at reserved matters stage once the location of windows, and orientation, height and location of properties is confirmed.

Internal Space Standards:

92. The internal space standards for new dwellings are set out in the Borough Design Guide and supported by TB07. As this is an outline application and scale is a reserved matter, the internal space would need to be assessed at reserved matters stage.

External Space Standards:

93. The Borough Design Guide indicates that gardens should have a depth of approximately minimum garden length of 11m provided the space is usable. The indicative site plans shows the indicative locations of gardens.
94. It is noted that Plot 9 garden is only 10m in depth, however the garden of Plot 8 is 24m in depth; on this basis a small reconfiguration of the indicative position of these properties is possible to maintain adequate gardens for both properties.
95. Plots 1 and 6 garden depths are also less than 11m; however, they both have a width of significantly over 11m which allows for further usable space any compensates for any shortfall in depth.
96. Overall, gardens of adequate size can be accommodated within the site and this can be assessed as a reserved matters.

Flooding and Drainage:

97. The site is located in Flood Zone 1 and therefore at low risk of flooding. Policy CC10 of the MDD Local Plan requires sustainable drainage methods and the minimisation of surface water flow.
98. R23 of the Borough Design Guide SPD notes that parking spaces in front gardens must be paved with permeable surfaces to avoid any increase in surface water run-off and should include for soft landscaping. This will be secured at reserved matters stage through the landscape reserved matter.
99. The WBC drainage Officer has requested a Surface water drainage strategy which includes more information to be submitted to allow for the management of flood risk and surface water run off. This will be secured by condition.

Environmental Health:

100. The proposed residential units are set within an established residential area, with multiple properties surrounding the site. There are no external noise sources that would impact on the proposed new dwellings and therefore the conditions proposed in relation to noise are not considered to be reasonable, particularly given this is all matters are reserved and the design and layout of the properties has not yet been determined. A number of conditions are recommended to reduce the impacts of the development during the construction period e.g. hours of working and the submission of a Construction Method Statement.

101. Whilst no records of contamination on or nearby nor landfill sites within close proximity an 'Unexpected Contamination' condition is recommended to account for any unexpected sources of contamination.

Archaeology:

102. TB25 states that where development is likely to affect an area of high archaeological potential or an area which is likely to contain archaeological remains, the presumption is that appropriate measures shall be taken to protect remains by preservation in situ. Where this is not practical, applicants shall provide for excavation, recording and archiving of the remains.
103. The supporting text to this policy states that The Council will consult with Berkshire Archaeology and with developers and their heritage consultants to ensure that the appropriate level of archaeological evaluation and appropriate measures to protect and preserve remains are undertaken.
104. Berkshire Archaeology have advised:
105. This region of Earley has seen very few previous archaeological investigations, as it was predominantly developed prior to regular development led archaeology as part of the planning system. More recently, there have been very few large developments for which an archaeological response would be proportionate.
106. A rare exception was at Crossfield School, c. 700 m west of the site, where an investigation in advance of the construction of an AstroTurf pitch in 2018 discovered Late Bronze Age and Middle Iron Age occupation. To the south of the M4, c. 850 m south of the site, a series of cropmarks are known showing likely Iron Age and Roman rural settlement, and c. 400 m to the southeast a hypothesised line of a Roman road is recorded. C. 1 km northwest Bronze Age and Roman occupation was recorded at Ridgeway Primary School. Thus there is archaeological potential in the wider area, even if little is known nearer to the site, on account of a lack of investigation.
107. In line with both local and national planning policy, I would therefore recommend that a scheme of archaeological works is secured by a condition, should permission be granted, to be undertaken prior to the submission of any reserved matters applications. On this basis a condition is recommended.

Ecology and Biodiversity:

108. All species of bats receive special protection under UK law and it is a criminal offence under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations), deliberately or recklessly to destroy or damage their roosts, or to disturb, kill or injure them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).

109. The licensing process is separate and distinct from planning permission but the Local Planning Authority has statutory obligations under the Habitat Regulations. This means that the Local Planning Authority needs to be satisfied that the proposals are likely to meet the three tests of the Habitat Regulations (see above) and that a licence is likely to be obtained from Natural England before they can issue planning permission [The courts have considered the application of a planning authority's duty under the Habitat Regulations (and therefore the Habitat Directive) in the cases of Woolley vs Cheshire Borough Council (2009) and Morge vs Hampshire County Council (2010). In the Morge vs Hampshire County Council case the supreme court has ruled that it cannot see why planning permission should not be granted unless the proposed development: A) Would be likely to offend the prohibitions in Article 12(1) and B) Would be unlikely to be licensed as a derogation from those provisions.
110. Policy CP7 of the Core Strategy states that sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted.
111. The development is not supported by any ecological survey.
112. The site falls outside of an area considered to be within suitable habitat for bats to be present and roosting in buildings and therefore it unlikely to have an significant impact on this protected species.
113. The site lies within an amber risk area for great Crested Newts and contains a series of small ornamental ponds however, due to the surrounding habitat and barriers to movement for this species, the presence of GCN's is unlikely.
114. WBC records indicate the presence of the hedgehog locally. CP7 and TB23 require the retention of ecological permanently for this species of principal importance and therefore a condition is recommended to secure this.
115. Considering that the site is a mixture of sealed surface and vegetated garden currently, in this instance I think the indicative outline plan does not show a proportionately large change in habitat types. I think it reasonable to accept that a biodiversity net gain could be achieved through appropriate planting and provision of species enhancements such as bird boxes, hedgehog shelters, targeted invertebrate measures, etc. I therefore propose a condition to secure detail of such enhancements at reserved matters stage.

Thames Basin Heaths Special Protection Area:

116. Policy CP8 of the Core Strategy states that development comprising 50 or more dwellings within the 5-7kms linear distance from the TBH will need to be assessed for whether there is likely to be significant impacts. As the proposal comprises fewer than 50 dwellings, this assessment is not required.

Conclusion:

117. The proposal is located within a sustainable location within an existing urban area where the principal of such development is supported. The scheme does however fail to provide an affordable housing contribution (subject to viability) and therefore is in recognised to be in conflict with policy CP5. However, as described above, the

identified inconsistency between CP5 and the NPPF, the current housing land supply position, the overall contribution this particular site would make to identified affordable housing needs, and the council's appeal record of securing such compliance on small sites, means the identified policy conflict is considered limited.

118. The quantum of development, indicative layout and type of dwellings are appropriate in terms of the nature and pattern of development in this particular location. The location of the access is acceptable and design details of the access are a reserved matter.
119. The proposal does involve the loss of a small number of protected trees. The removal of protected trees would be limited in its extent and the Applicant has confirmed that these will be replaced in any reserved matters scheme alongside a comprehensive landscaping scheme alongside biodiversity net gain to enhance the ecological and nature environmental features of the site.
120. Paragraph 11 of the NPPF sets out that achieving sustainable development means that development should satisfy three overarching objectives in relation to economic, social and environmental benefits. The economic role of the NPPF requires proposals to contribute to building a strong, responsive, and competitive economy. The social role requires planning to support strong, vibrant, and healthy communities and states that it should create a high-quality built environment. The environmental role states that the natural built and historic environment should be protected and enhanced and should mitigate and adapt to climate change. It is therefore necessary as part of any forthcoming application for the LPA to consider carefully to what degree this proposal would meet the sustainable development goals of the NPPF in terms of its economic, social and environmental roles.
121. The development would result in a time limited economic benefits brought about through employment opportunities associated with the construction period. In the longer term a net gain of 8 homes in the areas will bring about increased expenditure in the local economy, alongside the contribution towards CIL. The site can reasonably be expected perform a positive economic role.
122. Socially, through the provision of additional homes, the development would contribute, albeit in a limited way, to increasing the borough's overall housing supply. The new homes would also provide the foundation for future community life. As such the redevelopment of this site could reasonably perform a positive social role.
123. With regard to the environmental role, the redevelopment of the site could reasonably be expected to demonstrate a degree of inherent sustainability through compliance with the Council's most up-to-date energy efficiency and Building Regulations standards. Although there will be some loss of trees which are identified as Category C in the Arboricultural Impact Assessment, there would be no actual net tree loss due to the intention to replace any trees lost, Furthermore, the development will bring about a comprehensive landscaping scheme with biodiversity net gain which can be secured at reserved matters stage to enhance the ecological and natural environmental features of the site. The site also makes an efficient use of land within a sustainable location providing options for more active travel a healthier lifestyle for occupants. The development is therefore recognised as being able to perform a positive environmental role.

124. The NPPF is clear that where development does not result in significant harm and is sustainable, it should be supported. The proposal achieves wider compliance with the overall spatial objectives of the NPPF in significantly boosting the supply of new homes in a sustainable location within the borough.
125. In returning to Paragraph 11d of the NPPF and the tempered tilted balancing that must be undertaken, it is considered that the limited harm caused by the conflict with Policy CP5 of the Local Plan through a lack of affordable units and removal of a small number of protected trees is not considered to significantly and adversely outweigh those identified benefits associated with the provision of housing in this location, even when taking into account past over delivery as identified earlier in this report. Officers are therefore recommending the application for approval, subject to the conditions listed.

The Public Sector Equality Duty (Equality Act 2010)

In determining this application the Council is required to have due regard to its obligations under the Equality Act 2010. The key equalities protected characteristics include age, disability, gender, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief. There is no indication or evidence (including from consultation on the application) that the protected groups identified by the Act have or will have different needs, experiences, issues and priorities in relation to this particular planning application and there would be no significant adverse impacts upon protected groups as a result of the development.

APPENDIX 2 – Supplementary Planning Agenda, extract from Agenda item 116 - 10th May 2023

Agenda Item 116

Site Address: Crockers, Rushey Way, Earley, Wokingham

Application No: 221797, Pages 109-146

Further clarity within Officer report:

Clarity provided following Chairman's Briefing on 9th May 2023 on the following matters:

Density – Paragraph 55 which is in relation to the dwelling density of the surrounding area, should read 27-47 Dwellings per hectare (DPH), rather than 27-27 Dwellings per hectare (DPH).

Access – As a point of clarity, access is a reserved matter wherein the detail on the entrance to the site will be considered at a later stage. Notwithstanding this, an application for Outline planning permission must indicate the area of access regardless of whether access is reserved. Unless the applicant has indicated that those details are submitted “for illustrative purposes only” (or has otherwise indicated that they are not formally part of the application) which is not the case, the local planning authority must treat them as part of the development in respect of which the application is being made. This aside, though the broad area of the access will be subsequently considered within this application, the details of this (width, length, visibility splays, carriageway connection etc) will be assessed in the Reserved Matters application to follow should approval be granted which will be subject to Highways Officer consideration in line with statutory policy and guidance.

Amount of development – The indicative site plan has been provided illustrating how a proposal for 9 dwellings will be accommodated within the site. Detailed layout is to be considered at Reserved Matters stage. Therefore, officers are considering the principle of development for 9 dwellings in line with the description of development.

Trees and Landscape – Landscape and layout are reserved matters. Therefore, impacts on existing landscape features (particularly in relation to on-site trees recently benefitting from Tree Protection Orders (TPO)) are only based on the indicative site plan submitted. Notwithstanding the fact that the applicant has stated that removal of some landscape features are likely required to facilitate a wider access, it should be noted that approval of this Outline planning application does not indirectly approve landscape removal, as the need for this depends on an agreed layout and access, which matters are reserved and have not been assessed within this submission.

APPENDIX 3

Conditions / informatives or Reasons for refusal

APPROVAL subject to the following conditions and informatives:

1. Outline Permission

a) No development shall commence until details of the access, appearance, landscaping, layout, and scale (hereinafter called "the reserved matters") have been submitted to and approved in writing by the local planning authority and the development shall be carried out as approved.

b) Application for approval of the reserved matters shall be made to the local planning authority not later than three years from the date of this permission.

The development hereby permitted shall begin not later than two years from the date of approval of the last of the reserved matters to be approved.

Reason: In pursuance of s.92 of the Town and Country Planning Act 1990 (as amended by s.51 of the Planning and Compulsory Purchase Act 2004).

2. Approved Plans

This permission is in respect of the submitted application plans and drawings numbered P001PL01 Issue 006 received by the local planning authority on 18 July 2022. The development shall be carried out in accordance with the approved details unless other minor variations are agreed in writing after the date of this permission and before implementation with the Local Planning Authority.

Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the application form and associated details hereby approved.

3. Archaeology

Prior to the submission of any reserved matters applications and any works on site, except demolition to ground level, the applicant or their agents or successors in title will secure the implementation of a programme of archaeological work (which may comprise more than one phase of works) in accordance with a written scheme of investigation, which has been submitted by the applicant and approved by the planning authority. The development shall only take place in accordance with the detailed scheme approved pursuant to this condition.

Reason: The site lies within an area of unknown archaeological potential. The condition will ensure that any archaeological remains within the site are adequately investigated and recorded in order to advance our understanding of the significance of any buried remains to be lost and in the interest of protecting the archaeological heritage of the Borough.

4. Car and Motorcycle Parking

The reserved matters application for the development shall include details of car and motorcycle parking in accordance with the Council's policies and which are to be approved in writing by the Council. No dwelling shall be occupied until the vehicular accesses, driveways, parking and turning areas to serve it including any visitor and unallocated space have been provided in accordance with the approved

details and the provision shall be retained thereafter. The vehicle parking shall not be used for any other purposes other than parking and the turning spaces shall not be used for any other purposes than turning.

Reason: In the interests of highway safety and convenience in accordance with Wokingham Borough Core Strategy Policies CP1 and CP6, CC07 of the Managing Development Delivery Local Plan (Feb 2014), the Parking Standards Study within the Borough Design Guide 2010.

5. Cycle Parking and Storage

The reserved matters application for the development shall include details of secure and covered bicycle storage/parking facilities serving that dwelling for the occupants of, and visitors to the development. The cycle storage/parking shall be implemented in accordance with the approved details before occupation of the development hereby permitted and shall be permanently retained in the approved form for the parking of bicycles and used for no other purpose.

Reason: In order to ensure the development contributes towards achieving a sustainable transport system and to provide parking for cycles in accordance with Wokingham Borough Core Strategy Policies CP1 and CP6, the Parking Standards Study within the Borough Design Guide 2010 and CC07 of the Managing Development Delivery Local Plan.

6. Vehicular Access

Prior to commencement of the development, details of the proposed vehicular access on to Rushey Way to include visibility splays of 2.4m by 43m, swept paths, moving of lamp post and Road Safety Audit Stage 1 shall be submitted to and approved in writing by the local planning authority. The accesses shall be formed as so approved and the visibility splays shall be cleared of any obstruction exceeding 0.6 metres in height prior to the occupation of the development. The access shall be retained in accordance with the approved details and used for no other purpose and the land within the visibility splays shall be maintained clear of any visual obstruction exceeding 0.6 metres in height at all times.

Reason: In the interests of highway safety and convenience in accordance with Core Strategy policies CP3 & CP6

7. Electric Vehicle Parking

Prior to commencement of development, an Electric Vehicle Charging Strategy shall be submitted to, and approved in writing by, the local planning authority. This strategy shall include details relating to onsite electric vehicle charging infrastructure in accordance with Building Control Regulations Approved Document S and details of installation of charging points. The development shall be implemented in accordance with the agreed strategy thereafter.

Reason: In order to ensure that secure electric vehicle charging facilities are provided so as to encourage the use of sustainable modes of travel. Relevant policy: Core Strategy policies CP1, CP3 & CP6 and Managing Development Delivery Local Plan policy CC07.

8. Surface Water Drainage

A Surface Water Drainage Strategy shall be submitted to and approved in writing prior to occupation of the dwellings hereby approved. The Drainage strategy shall include:

1. Calculations indicating the Greenfield runoff rate from the site.
2. BRE 365 test results demonstrating whether infiltration is achievable or not.
3. Use of SuDS following the SuDS hierarchy, preferably infiltration.
4. Full calculations demonstrating the performance of soakaways or capacity of attenuation features to cater for 1 in 100 year flood event with a 40% allowance for climate change and runoff controlled at Greenfield rates, or preferably better.
5. Calculations demonstrating that there will be no flooding of pipes for events up to and including the 1 in 100 year flood event with a 40% allowance for climate change.
6. If connection to an existing surface water sewer is proposed, we need to understand why other methods of the SuDS hierarchy cannot be implemented and see confirmation from the utilities supplier that their system has got capacity and the connection is acceptable.
7. Separate drainage systems for any proposed adopted highways and residential dwellings.

Reason: This is to prevent increased flood risk from surface water run-off. Relevant policy: NPPF (2019) Section 14 (Meeting the Challenge of Climate Change, Flooding and Coastal Change), Core Strategy policy CP1 and Managing Development Delivery Local Plan policies CC09 and CC10.

9. Construction Environmental Management Plan (CEMP)

No development shall take place, including any works of demolition, until a Construction Method Statement has been submitted to, and approved in writing by, the local planning authority. The approved Statement shall be adhered to throughout the construction period. The Statement shall provide for:

- i) the parking of vehicles of site operatives and visitors,
- ii) loading and unloading of plant and materials,
- iii) storage of plant and materials used in constructing the development,
- iv) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate,
- v) wheel washing facilities,
- vi) measures to control the emission of dust and dirt during construction,

vii) a scheme for recycling/disposing of waste resulting from demolition and construction works.

*Reason: In the interests of highway safety & convenience and neighbour amenities.
Relevant policy: Core Strategy policies CP3 & CP6.*

10. Tree Protection

No retained tree shall be cut down, uprooted or destroyed, nor shall any retained tree be topped or lopped other than in accordance with the approved plans and particulars, without the written approval of the local planning authority. If within a period of five years from the date of the planting of any tree that tree, or any tree planted in replacement for it, is removed, uprooted or destroyed or dies, another tree of the same species and size as that originally planted shall be planted at the same place, unless the local planning authority gives its written consent to any variation.

Reason: To secure the protection throughout the time that development is being carried out, of trees, shrubs and hedges growing within the site which are of amenity value to the area. Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

11. Arboricultural Method Statement

- a) No development or other operation shall commence on site until an Arboricultural Method Statement and Scheme of Works which provides for the retention and protection of trees, shrubs and hedges growing on or adjacent to the site in accordance with BS5837: 2012 has been submitted to and approved in writing by the local planning authority. No development or other operations shall take place except in complete accordance with the details as so-approved (hereinafter referred to as the Approved Scheme).
- b) No operations shall commence on site in connection with development hereby approved (including any tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening or any other operation involving use of motorised vehicles or construction machinery) until the tree protection works required by the Approved Scheme are in place on site.
- c) No excavations for services, storage of materials or machinery, parking of vehicles, deposit or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within an area designated as being fenced off or otherwise protected in the Approved Scheme.
- d) The fencing or other works which are part of the Approved Scheme shall not be moved or removed, temporarily or otherwise, until all works including external works have been completed and all equipment, machinery and surplus materials removed from the site, unless the prior approval in writing of the local planning authority has first been sought and obtained.

Reason: To secure the protection throughout the time that the development is being carried out of trees shrubs or hedges growing within or adjacent to the site which are of amenity value to the area, and to allow for verification by the local planning authority that the necessary measures are in place before

development and other works commence Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

12. Contamination

If contamination is found at any time when carrying out the approved development that was not previously identified, it must be reported in writing immediately to the Local Planning Authority. An investigation and risk assessment must be undertaken and where remediation is necessary a remediation scheme must be which is subject to the approval in writing of the Local Planning Authority.

Following completion of measures identified in the approved remediation scheme a verification report must be prepared, which is subject to the approval in writing of the Local Planning Authority.

Reason: To protect future occupiers and users of the site from the harmful effects of contamination

Informatives:

1. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received and subsequently determining to grant planning permission in accordance with the presumption in favour of sustainable development as set out in the NPPF.
2. The applicant is reminded that this approval is granted subject to conditions which must be complied with prior to the development starting on site. Commencement of the development without complying with the pre-commencement requirements may be outside the terms of this permission and liable to enforcement action. The information required should be formally submitted to the Council for consideration with the relevant fee. Once the details have been approved in writing the development should be carried out only in accordance with those details. If this is not clear please contact the case officer to discuss.

APPENDIX 3

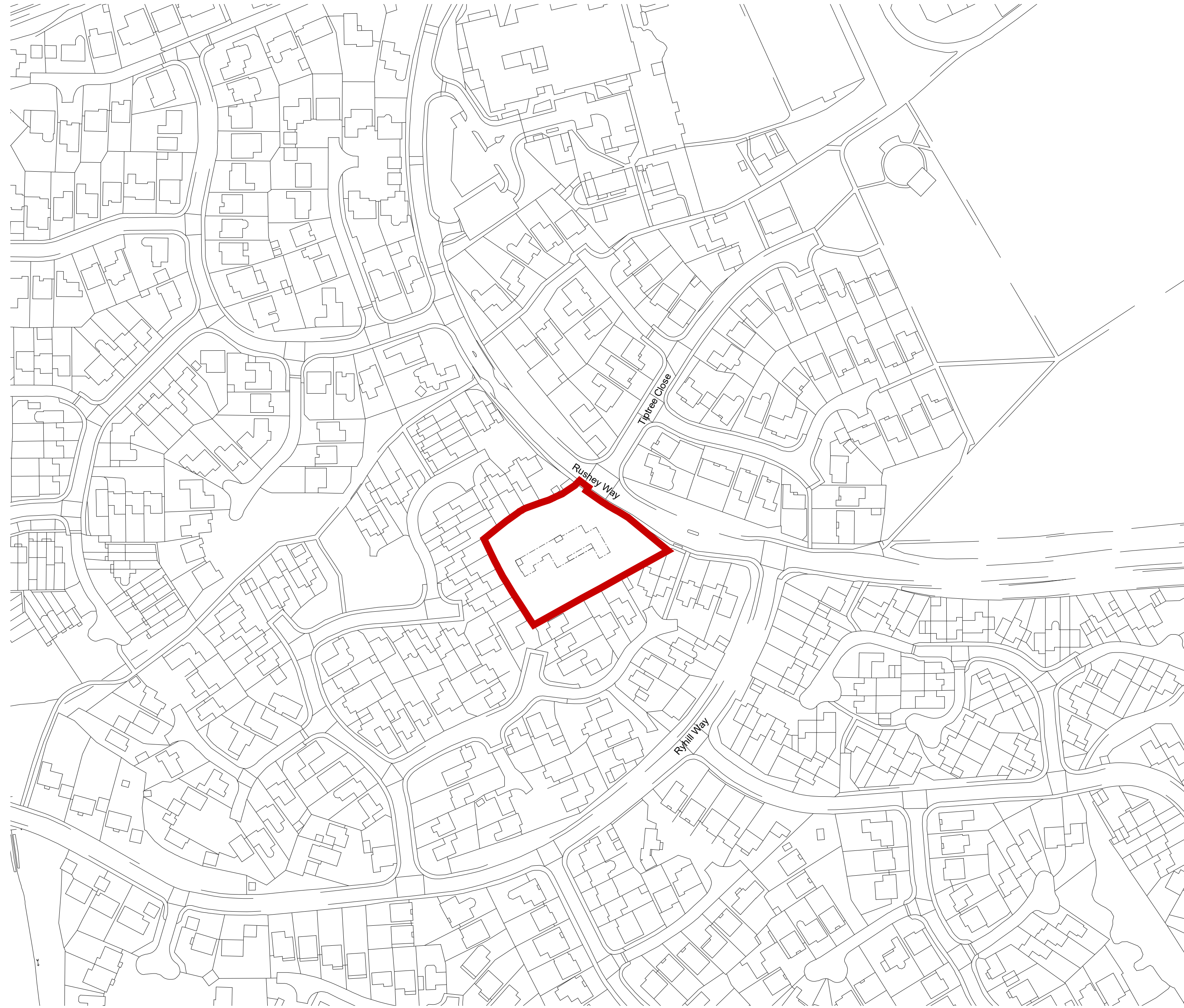
Earley Town Council Comments

PLANNING REF : 221797
PROPERTY ADDRESS : Radstock House
: Radstock Lane, Earley, Wokingham
: RG6 5UL
SUBMITTED BY : Earley Town Council
DATE SUBMITTED : 05/04/2023

COMMENTS:

ETC raises objection to this application and recommends that WBC refuses the application as whilst the layout is "indicative", it is the applicants intention that it shows that 9 dwellings can be satisfactorily accommodated on this site. However, ETC consider that this layout has failed to demonstrate that 9 dwellings can be accommodated satisfactorily, in failing to demonstrate that a suitable and safe access can be achieved, with an existing junction opposite, and no assessment of the viability of the proposed junction in geometric and highway safety terms, and with no transport statement; and that the TPO trees shown fail to show they can be realistically retained, as even set out in the applicants own Arboricultural Report. A resolution of these issues is unlikely without impacting the site capacity significantly, contrary to Policy CP3 and CC03, and Manual for Streets. Also, a failure to demonstrate the protection of wildlife contrary to Policies CP3 and TB21. In addition a failure to adequately carry out pre-application consultation, as described in Paragraphs 33-42 of the NPPF 2021. If WBC are minded to approve this application the following condition is requested: 1 The indicative layout submitted as part of the outline application in no way represents an acceptable form of layout, being in conflict with WBC Policy CP3 and Design Policies R15 and R16, and not demonstrating a suitable and safe access from the highway, contrary to MfS

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Site Location Plan

1:1250
 0m 10m 20m 30m 40m 50m 100m



Block Plan

1:500
 0m 5m 10m 15m 20m 25m 50m

Issue 006	Planning Submisison	17-07-2022	Issue 003	Planning Submisison	09-06-2022
Issue 005	Planning Submisison	11-07-2022	Issue 002	For client comments	24-05-2022
Issue 004	Planning Submisison	24-06-2022	Issue 001	For client comments	17-05-2022

Applicant
Mrs C. Burrows

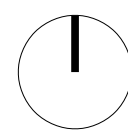
Project Title
**Residential Development
 comprising 10 Dwellings**

Address
**Crockers
 Rushey Way, Lower Earley
 RG6 4AS**

Drawing Number
P001 - PL - 01

Drawing Title
**Exisiting Site Location and
 Block Plan**

Paper Scale
A1 Varies



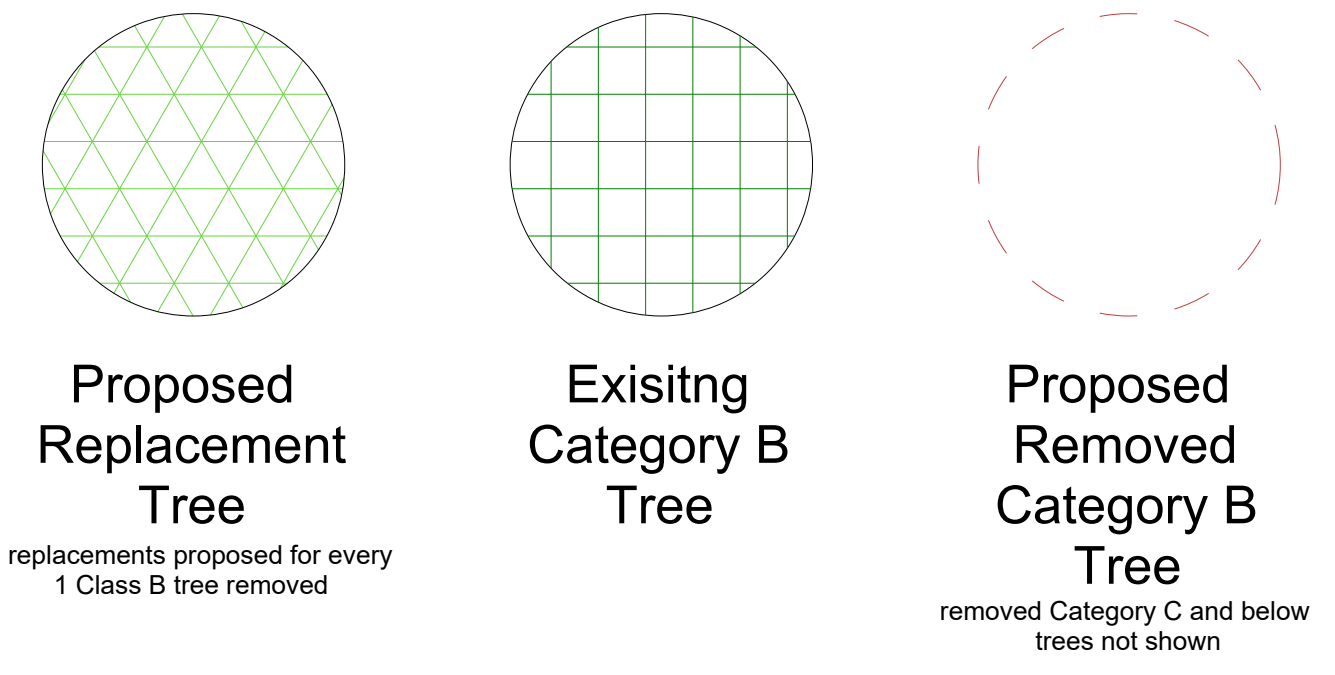
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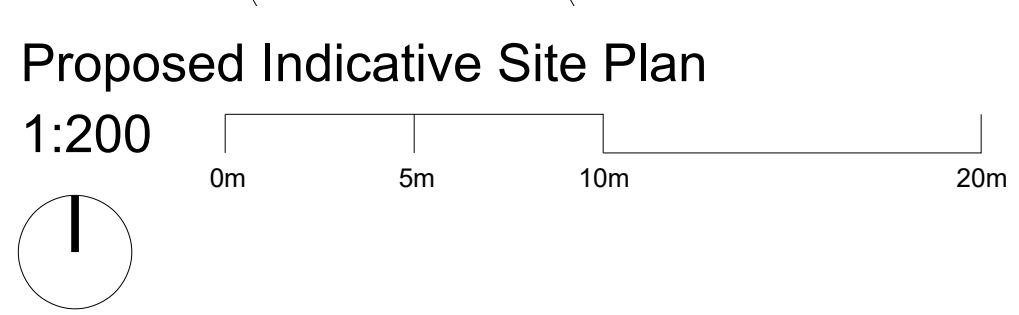
- Key**
- 1 - Existing access to highway
 - 2 - Turning Head
 - 3 - Private Driveways
 - 4 - Location of existing bus stop

Indicative Accomodation Schedule

Plot	Approx.GIA	Bedrooms	Storeys	Parking
Plot 1	84.1	3	2	3 (1 Integrated)
Plot 2	84.1	3	2	3 (1 Integrated)
Plot 3	75.5	2	2	2
Plot 4	75.5	2	2	2
Plot 5	84.1	3	2	3 (1 Integrated)
Plot 6	72.6	2	2	2 (1 Integrated)
Plot 7	84.1	3	2	3 (1 Integrated)
Plot 8	90.9	3	3	2
Plot 9	90.9	3	3	2



55



Issue 007	Planning Submission	07-03-2023
Issue 006	Planning Submission	17-07-2022

Applicant
Mrs C. Burrows

Project Title
Residential Development comprising 9 Dwellings

Address
**Crockers
Rushey Way, Lower Earley
RG6 4AS**

Drawing Number
P001 - PL - 02

Drawing Title
Proposed Indicative Site Plan

Paper A1 Scale 1:200

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116. APPLICATION NO.221797 - "CROCKERS", RUSHEY WAY, EARLEY, WOKINGHAM

Proposal: Outline application with all matters reserved for the proposed erection of 9 no. dwellings following demolition of the existing dwelling.

Applicant: Mrs C Burrows

The Committee considered a report about this application, set out in agenda pages 109 to 146.

The Committee were advised that updates contained within the Supplementary Planning Agenda included clarification with regards to access, amount of development and trees and landscape issues.

Sandra Shaw, resident, spoke in objection to the application. Sandra was of the opinion that moving from one property to 9 properties was an example of overdevelopment, and whilst the plans were indicative, they failed to address a number of concerns raised by residents and the Council. Sandra felt that the application failed to demonstrate how a suitable and safe access could be achieved, whilst a 30m junction spacing, as outlined in Wokingham Borough Council's (WBC's) 'Manual for Streets', had not yet been addressed. Sandra stated that Tiptree Close, opposite the application site, was a key entrance to Hillside Primary School and was in constant use. Sandra added that the existing angled decline into the drive at Crockers made it a dangerous blind spot to exit from. Sandra felt that the proposal contravened WBC's Climate Emergency Action Plan by not engaging with the local community and stakeholders, whilst policies CP3, CC03, TB21 and TB06 required development to protect and retain existing landscaping features. Sandra added that the proposals was contrary to policy TB06 in that it would result in the loss of residential garden with relatively little provision of replacement of soft or green landscaping. Sandra commented that a TPO was applied to the site in 2022, requiring seven important trees and an important group of trees be retained. Sandra added that there was no protection for the existing essential hedgerow which provided screening, whilst the TPO of several trees could not effectively be protected from damage via construction work to the driveway. The existing hedgerow provided habitat, shelter, corridors, rest spaces and safety for a wide range of wild birds and animals in addition to providing screening for neighbours, and destruction of this green corridor would result in wildlife not returning for many years. Sandra stated that 14 properties bordered the quiet site, and the addition of 9 dwellings would lead to an unacceptable intrusion of privacy and amenity for existing residents. Sandra felt that the development of 9 properties, some of which could be up to three storeys in height, would radically alter the character of the area. Sandra asked that the Committee defer the application in order to conduct a site visit.

Daniel Thompson, agent, spoke in support of the application. Daniel stated that many of the issues raised by objectors would be considered in detail at the reserved matters stage, should outline permission be granted. Daniel added that the WBC highways team had initially objected to the application, however this had been withdrawn following a revision to the scheme and suitable conditions, subject to further detail at the reserved matters stage. Daniel stated that the density of the proposed development sat at the lower end of the scale of the density of the surrounding developments. Daniel was of the opinion that three storey properties were found within the surrounding area, and could be viewed via 'street view'. Regarding landscaping, Daniel commented that this was to be dealt with at the reserved matters stage. However, to validate the application, a tree survey was carried out which identified Grade B trees on the site, and the focus of the landscaping solely

Extract from Draft Minutes of a Meeting of the Planning Committee – 10 May 2023

focussed on those elements specifically required for this outline application. Daniel added that removal of any Grade B tree would result in its replacement with two good quality trees and a management plan to ensure their survival. Daniel stated that all other landscaping decisions, including the fantastic existing hedgerow, had not been resolved as this was only an outline application. Daniel added that access to the site was existing, with development taking place around the site. Daniel concluded by stating that all relevant details would be presented at the reserved matters stage, subject to approval of this outline application.

Pauline Jorgensen, Ward Member, spoke in objection to the application. Pauline stated that a reduction in the proposed amount of properties from 10 to 9 was welcome, however serious concerns still remained that this area could not accommodate this level of development. Pauline stated that the planned access did not meet highways standards and had not changed as it was almost directly opposite to Tiptree Close rather than having a 30m offset, whilst it also appeared to be very narrow with no pavement, which would make it difficult for cars to pass or refuse vehicles to access the site. Pauline noted that the landscaping officer had raised concerns regarding the loss of TPO trees when the access was widened. Due to the proximity of the site to Hillside Primary School, the area already experienced issues relating to parking. Pauline felt that it would not be necessary to remove the TPO tree should the proposed number of dwellings be further reduced, allowing more space to access the site. Pauline was of the opinion that the site was cramped, would not provide a public open space, and would leave residents with an unattractive and largely hardstanding fronting. Pauline stated that plots 1, 9, and 6 did not meet standards, whilst she did not understand how one plot having a longer plot mitigated other gardens with smaller spaces. Pauline felt it essential that existing hedging was retained, whilst the development should not be allowed to accommodate three storey dwellings.

Caroline Smith, Ward Member, spoke in objection to the application. Caroline asked that the Committee undertake a site visit during school pickup time to understand issues relating to access, parking and safety. Caroline added that permanent traffic calming measures had recently been installed on this busy road outside of Hillside Primary School. Caroline stated that if this was a new estate, creation of a crossroad with no refuge on a busy road would not be acceptable. Caroline added that the site had mature hedgerows and TPO trees, and the tree at the entrance to the site would have to be removed in addition to much of the greenery at the site. Caroline commented that much of the wildlife inhabiting the site, which at present was very vibrant, would be lost as a result of this development. Caroline raised concerns regarding the proposed proximity of the new dwellings in relation to existing properties, especially if some of the proposed dwellings were to be three storeys in height.

Andrew Mickleburgh stated that there were a number of concerns in relation to this application, including access, TPO trees and landscaping, site elevation and its relation to surrounding properties, and whether up to 9 homes could be accommodated on site. Whilst some of these issues would be considered at the reserved matters stage, should outline approval be granted, Andrew suggested that a site visit would allow the Committee to more fully appreciate the context of the site.

Stephen Conway regretted that this was an outline application, as it would facilitate the principle of development in the absence of detail.

Extract from Draft Minutes of a Meeting of the Planning Committee – 10 May 2023

David Cornish stated that whilst he had sympathy for residents, this site was located within a major development area and WBC was required to deliver more homes. David queried whether 9 homes was the maximum that could be built on the site if the application was approved. Benjamin Hindle, case officer, stated that a maximum of 9 homes could be delivered via this outline permission should it be granted.

Wayne Smith commented that approval of this outline application, and establishment of a principle of development, could make it easier for a future application to be lodged to propose an increase over and above 9 dwellings.

Alistair Neal was of the opinion that 9 dwellings may constitute overdevelopment of the site.

Andrew Mickleburgh proposed that the application be deferred, to allow a site visit to be undertaken to facilitate a better understanding of the context of the site. This was seconded by Stephen Conway.

RESOLVED That application 221797 be deferred, to allow a site visit to be undertaken to facilitate a better understanding of the context of the site.

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Agenda Item 8.

Application Number	Expiry Date	Parish	Ward
203617	16/06/2023 (EoT to be agreed further to facilitate S106 agreement)	Wokingham	Emmbrook

Applicant	South East Rivers Trust
Site Address	Riverside Park, Woosehill, Wokingham, RG41 2ST
Proposal	Full application for proposed works to reconnect a 340 metre length of historic river channel of the Emm Brook through Riverside Park, to bypass the existing weir. With associated excavation, silt removal/storage and landscaping works, plus the erection of 2 no. 8 metre x 3.5 metre wooden bridges to maintain existing access for pedestrians and maintenance vehicles, following removal of an existing piped culvert.
Type	Full application
Officer	Benjamin Hindle
Reason for determination by committee	Major application by virtue of site area >1HA

FOR CONSIDERATION BY REPORT PREPARED BY	Planning Committee on Wednesday, 14 th June 2023 Assistant Director – Place and Growth
RECOMMENDATION	<p>That the committee authorise the GRANT OF PLANNING PERMISSION subject to the following three-tiered recommendation:</p> <p>A. Completion of a legal agreement (S106) to secure the following HoT (Head of Terms):</p> <p>Offline Pond Provision</p> <p>1. The applicant will commit to submitting a planning application for the creation of an offline pond within Woosehill Meadows for approval in writing by the Local Planning Authority.</p> <p>2. The applicant will commit to creating a compensation pond within Woosehill Meadows.</p> <p>3. The Council will commit to supplying a suitable location and maintaining the pond once it has been created.</p> <p>B. Conditions and informatives as set out in Appendix 1 (subject to any additions and updates agreed with the Assistant Director – Place and Growth between the date of the resolution and the issue of the decision):</p>

C. Alternative recommendation: That the committee authorise the Head of Development Management to refuse planning permission in the event of an S106 agreement not being completed to secure an offline mitigation pond within six months of the date of the committee resolution (unless a longer period is agreed by the Head of Development Management in consultation with the Chairman of Planning Committee) for the following reason:

1) In the absence of a planning obligation to secure suitable contributions / off site works for the following:

- Committal from the applicant to submit a planning application for the creation of an offline pond within Woosehill Meadows for approval in writing by the Local Planning Authority.**
- Committal from the applicant to create the compensation pond within Woosehill Meadows following approval in writing by the LPA.**
- Committal from the Council to supply a suitable location for the pond and to maintain the pond once it has been created.**

It has not been possible to secure the adequate mitigation put forward to justify the loss of an ecological habitat and the proposal could have a detrimental impact on existing wildlife and ecology on site. This is contrary to the principles of policies CP1, CP3 and TB23.

SUMMARY

The proposed application seeks permission to divert the (GB106039023130) Emm Brook River from the existing course adjacent to Riverside Park (west of the proposal) and Brookside (east of the proposal) with ancillary hard and soft landscaping. The Emm Brook is a tributary from the River Loddon, flowing north to south. The 340-metre section of the Emm Brook proposing to be diverted would involve the reinstatement and use of the historic paleo channel which location is broadly shown in figure 1 below and would be delivered on WBC owned land, by the South East Rivers Trust via Environment Agency funding as confirmed by the applicant.

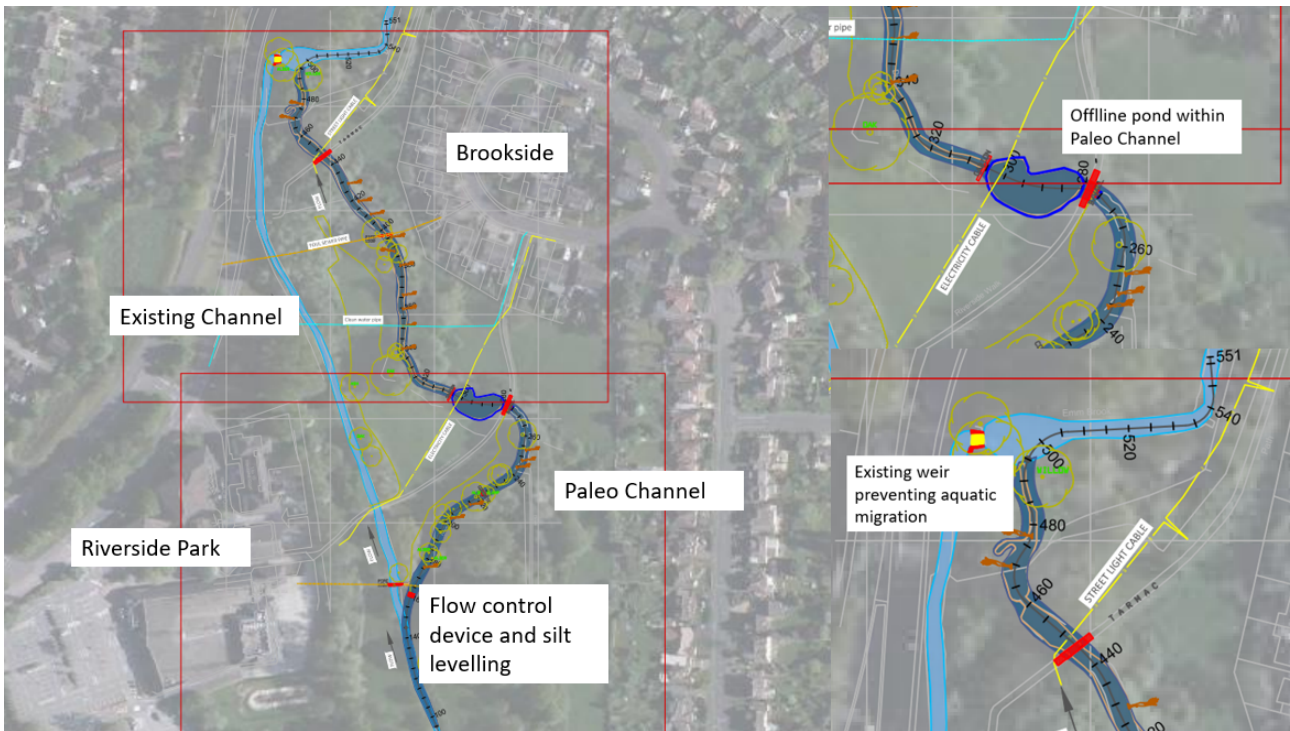


Figure 1 – Site Plan

The Emm Brook’s existing, man-made and engineered course flows west of the historic paleo channel and its diversion to the paleo channel will promote significant ecological benefits in allowing fish to migrate up and down stream, without the constraint of the weir to the north of the application site (shown above in figure 1) which currently hinders the aquatic permeability within the existing channel and contributes to the Emm Brooks poor-moderate ecological classification by the Water Framework Directive (WFD) for physical modification.

These current concerns that contribute to the Emm Brooks’s failing status, require action to be taken to improve this by removing barriers to fish migration, and gene pool diversity of at least 9 species of native fish and aquatic wildlife (as established in fish survey prior to submission). The beforementioned concerns and necessity to improve the Emm Brooks status have governed and informed the submission of this application.

The applicant, South East Rivers Trust (SERT) are a charitable organisation that specialise in restoring, re-naturalising and reconnecting rivers, removing barriers to fish migration and enhancing habitats. SERT improve water quality through wetland creation and construct natural flood management measures to protect communities and surrounding land. All SERT projects are led by data, evidence and experience as conservation experts, using research and monitoring to target positive action and developed in close collaboration with the Environment Agency. Using this data and expertise, SERT host catchment partnerships – bringing together stakeholders to challenge and collaborate on the best outcomes for rivers, in this case with Wokingham Borough Council as the landowner.

To facilitate the proposed diversion, a degree of operating works are required to be undertaken subject to approval. This includes, but is not limited to silt extraction and disposal, watercourse grading with a decrease in paleo course level from 44.9metres to 43.8-43metres and the installation of a 2x3 metre concrete flow control system. The above

works will facilitate the channelling of a proportionate amount of water through the paleo channel, to retain a low-moderate velocity and where flow exceeds this standard, the excess flow will be diverted via the flow control system, into the 'existing' channel as a flood alleviation measure which creates climate and water resilience to the directly local area. This is particularly important considering the site's location within functional floodplain, as defined by Flood Zone 3. These operating ground works are minor in nature, and other than the transportation of silt, involves minor trip generation due to the work force facilitating these changes coming in the form of local volunteers.

Though the vast majority of works proposed are operational groundworks, in relation to proposed hard landscaping, the application proposes the construction of 2 no. pedestrian footbridges to be constructed of Ekki (Marine degree timber). Currently, there are asphalt paths with a culvert allowing water underneath in two locations within the application redline. To improve the flow of water, one of the existing culverts to the south-central portion of the site will be removed and replaced with 1no. 8metre by 3 metre pedestrian footbridge, with the other being to the south of the site to allow safe passage across the diverted channel whereby the reconnection is proposed. The proposed foot bridges forming a part of this application and their locations are shown below in figure 2 broadly located to the central south and due south of the application site and would be placed at sufficient height above the watercourse, informed by hydraulic modelling and intended re-profiling depth. The presence of a larger, safer footbridges with 1:12 ramps (resultant of profiling) for inclusive access on site, which are durable enough for maintenance vehicles, will aid the promotion of inclusive permeability through the application site for pedestrians and cyclists where it is limited as existing.



Figure 2 –Proposed Bridge Locations (extract from AIA)

The resulting ground works, and additions of hard landscaping will have a degree of non-significant impact to the existing green infrastructure network running along the Emm Brook with reference to the submitted Arboricultural Impact Assessment and Tree Protection Plan. These submitted documents outline that 5no. native trees identified for removal to facilitate works, 4 being removed to facilitate the foot bridge to the south-central of the application site, a 1 being removed to facilitate silt removal. Though Core Strategy Policy CC03 does not support the loss of valuable green infrastructure, none of the trees identified for removal/ pruning are TPO listed and are classed as grade 'B' in their quality, the applicant has further confirmed that the stumps will be retained for natural re-growth. Though technically contrary to CC03 in part, considering on balance the wider context of development and significant sustainability benefits to the local area, this loss is considered to be acceptable to facilitate the proposed works. Members should note that SERT have been in direct contact with the Wokingham Veteran Tree Society who support the overall project notwithstanding the minor impacts to landscaping on site.

The application will deliver significant environmental and social benefits to the local area and will aid the Emm Brooks classification as a failing river in promoting aquatic permeability and improved water resilience in the event of flood, which is ever important considering the provisions of Core Strategy Policies CP1 and CP3 in line with climate change. Due to the proposal's method of construction by nature, utilising local volunteers will aid community cohesion, education and skills of groundworks/ aquatic wildlife. The points raised above of the benefits of the application, this submission is recommended for approval subject to conditions and associated S106 legal agreement to secure an offline compensation pond.

RELEVANT PLANNING HISTORY

There is no relevant planning history for the application site.

DEVELOPMENT INFORMATION	
Previous land use	Fluvial Course and Public Open Space – Emm Brook River and Woosehill Meadows
CONSTRAINTS	Major Development Location Potentially contaminated land consultation zone Tree Preservation Order Thames Basin Heaths - Special Protection Area – 5 and 7 km

CONSULTATION RESPONSES	
Environment Agency	No objection
Drainage	No objection subject to conditions

Trees and Landscape	No objection subject to conditions
Ecology	No objection subject to conditions
Public Rights of Way	No objection
Environmental Health	No objection subject to condition
Natural England	No comment
Highways	No objection subject to conditions

REPRESENTATIONS							
Parish/Town Council	<p>Concerns raised in relation to impact on existing biodiversity (namely the frog spawn in the existing pond), impact to trees and footbridge height.</p> <p><i>Officer Comment: The applicant has agreed to provide a suitable offline mitigation pond via S106 agreement.</i></p> <p><i>The impact to trees only relates to landscape features of low/moderate quality as detailed in paragraphs 41 and 42 of the Officer report. Protection measures have been secured by condition and where not possible, compensation planting. The works will significantly improve biodiversity in the local area and impacts to frogs will be mitigated.</i></p> <p><i>The footbridges have been carefully proposed with consideration of proposed channel depth, profiling and hydraulic modelling.</i></p>						
Ward Member(s)	<p>Cllr Imogen Shepherd-Dubey requested Officers to review the mitigation of the loss of frog habitat.</p> <p><i>Officer note: The applicant has agreed to provide an offline mitigation pond via S106 agreement.</i></p>						
Neighbours	<table border="1"> <thead> <tr> <th colspan="3">Objections and comments</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>FOTEB – Friends of the Emm Brook.</td> <td> <ul style="list-style-type: none"> • Overall support the project • Loss of offline pond and concern this will not be replaced • Platform of southern bridge below 10 year flood level • Maintenance and management at times of high water levels • Landscape replacements/ regrowth where possible • Further Greenways project and importance of holistic approach </td> </tr> </tbody> </table>	Objections and comments			1.	FOTEB – Friends of the Emm Brook.	<ul style="list-style-type: none"> • Overall support the project • Loss of offline pond and concern this will not be replaced • Platform of southern bridge below 10 year flood level • Maintenance and management at times of high water levels • Landscape replacements/ regrowth where possible • Further Greenways project and importance of holistic approach
Objections and comments							
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2.	9 Meadow Walk	<ul style="list-style-type: none"> • Overall support of the project • Loss of offline pond • Impact to frogs, no development until spawn has hatched
3.	14 Lowther Close	<ul style="list-style-type: none"> • Supported in principle • Unsightly original channel • Loss of offline pond • Impact to existing biodiversity
4.	9 Astor Close	<ul style="list-style-type: none"> • Loss of offline pond • Southern bridge level
5.	39 Brookside	<ul style="list-style-type: none"> • Supportive of the proposal • Concern raised as to the loss of the offline pond • Suggested planting
6.	Oxford Road	<ul style="list-style-type: none"> • Supportive of the proposal • Query RE access during construction
7.	29 Humber Close	<ul style="list-style-type: none"> • Concern raised as to the proposed alignment • Ecological impacts • Existing concerns that are not material to this application.

PLANNING POLICY

National Planning Policy Framework
National Design Guide
National Planning Practice Guidance

Core Strategy (CS)

- CP1 – Sustainable Development
- CP2 – Inclusive Communities
- CP3 – General Principles for Development
- CP4 – Infrastructure Requirements
- CP7 – Biodiversity
- CP8 – Thames Basin Heaths Special Protection Area
- CP9 – Scale and Location of Development Proposals

MDD Local Plan

CC01 – Presumption in Favour of Sustainable Development

CC02 – Development Limits

CC03 – Green Infrastructure, Trees and Landscaping

CC04 – Sustainable Design and Construction

CC09 – Development and Flood Risk

CC10 – Sustainable Drainage

TB21 – Landscape Character

TB22 – Sites of Urban Landscape Value

TB23 – Biodiversity and Development

TB25 – Archaeology

Other

Borough Design Guide Supplementary Planning Document

Sustainable Design and Construction Supplementary Planning Document

Wokingham Town Centre SPD

PLANNING ISSUES

Description of Development:

1. This planning application involves the diversion of the Emm Brook river within the Woosehill Meadows Public Open Space at Woosehill, Winnersh. The stream would be diverted through a historic (paleo) channel and existing pond, allowing the course to avoid an existing weir and sewage pipe which prevent the migration of fish up and down the stream.
2. The Emm Brook (GB106039023130) - a tributary of the River Loddon is identified as failing under the Water Framework Directive (WFD) for physical modification, due to barriers to aquatic migration and urbanisation. Overall, the Emm Brook has a WFD classification of poor – moderate ecological status. Under the WFD, the weir situated to the north of the application site, has been identified as contributing to the failing status of the Emmbrook. The weir to the north of the application site, provides a barrier which prevents aquatic wildlife on either side of the stream from genetically mixing, which in turn limits the gene pool and creates less resilient species more prone to disease. Reconnecting the historic channel provides an excellent opportunity to encourage healthier and more diverse aquatic ecological populations upstream of the weir. Notwithstanding the primary aims of the proposal, the scheme also aims to promote the following:
 - Greater geomorphological diversity.
 - Reintroduction of more natural channel processes allowing adjustment to different flow regimes and sediment loads.
 - Improved connection between the river channel and riparian areas.
 - Greater habitat and species diversity.
 - Improved water quality – the historic channel is situated further away from road runoff hotspots.

- Enhanced visual amenity and landscape character – supporting wellbeing of the local community/residents/park users.
 - Improved public awareness of the importance of river environments.
 - A less “flashy” hydrological regime with potential reduction in flood risk.
3. The existing channel will be retained and is proposed to be used as a flood alleviation measure in times of excess discharge/ flow, which futureproofs the Emm Brook’s flood resilience in line with climate change. The operational development will consist of clearing the paleo channel of the build-up of silt, disposing of such sustainability via 100mm deposits on the riverbank to support native flora (under Environment Agency D1 exemption)/ disposal at a licensed waste centre and the creation of 2no. Ekki timber footbridges in the southern and central portion of the application site, these are referred to as SERT northern and southern bridges within the submission.
 4. The flow will be diverted into the historic paleo channel up to a certain discharge level by clearing and re-profiling the paleo channel down to the former gravel bed, exposing an intact pool/riffle sequence, thus creating a more efficient path for water to run, hence self-regulating the flow and preventing connection to the ‘existing’ channel unless required at a certain level. Above this level there will be flows going down both channels by virtue of a proposed concrete flow control system of 2x3 metres, which will monitor the flow of the historic paleo channel and when it is detected that the flow exceeds low-moderate as envisaged due to the relatively shallow proposed depth, the flow will be diverted to the ‘existing’ channel to alleviate flood risk.

Principle of Development:

5. The National Planning Policy Framework has an underlying presumption in favour of sustainable development which is carried through to the local Development Plan. The Managing Development Delivery Local Plan (MDD) Policy CC01 states that planning applications that accord with the policies in the Development Plan for Wokingham Borough will be approved without delay, unless material considerations indicate otherwise.
6. Policy CC02 of the MDD sets out the development limits for each settlement as defined on the policies map and therefore replaces the proposals map adopted through the Core Strategy, as per the requirement of policy CP9. Policy CP9 sets out that development proposals located within development limits will be acceptable in principle, having regard to the service provisions associated with the major, modest and limited categories. As the site is within a major development location, the proposal is acceptable in principle.
7. Paragraph 175(d) of the National Planning Policy Framework states: “When determining planning applications, local planning authorities should apply the following principles: d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”

Character of the Area:

8. The application site is located in the northern portion of Riverside Park, to the east of Morrisons and the Woosehill Dual-Carriageway, between the skatepark to the south-west and the weir to the north. The park broadly serves the residential community of Woosehill and is linked via paths to other areas of green infrastructure across the borough. Although Riverside Park is an urban park which backs onto residential development, such as 'Brookside', it has a tranquillity that would generally be associated with a rural area which informs its natural character.
9. The existing river channel, paths, vegetation and wetland combines to provide an area of different habitats and is a popular recreation area, therefore potential impacts on this established character should be considered in line with Core Strategy Policy CP3 which states planning permission will be granted for proposals that are of an appropriate character to the area together with a high quality of design without detriment to the amenities of adjoining land users including open spaces or occupiers and their quality of life.
10. Although the site falls within an urban, major development location area defined by the adopted MDD Local Plan acknowledged above, Woosehill Meadows falls within Landscape Character Area J1 'Wokingham- 'Winnersh Settled and Farmed Clay'. 'The Emm Brook flows through the area and its floodplain creates a green core through the urban areas'. The Emm Brook flows through the heart of the character area, rising south of Wokingham and skirting to the south-west and then around the northern edge of Winnersh. Open space lining its route provides an attractive green corridor connecting the rural environment with the urban core. The Emm Brook provides both a small-scale visual and recreational connection between the agricultural and urban landscapes which defines its individual character away from the major development location in which it lays.
11. Concerning hard landscaping and potential impacts to the character of the area, the proposed 2no. pedestrian footbridges are of simple design and are proposed to be constructed using Ekki (a tropical hardwood). The applicant has provided a licence number and it is acknowledged that whilst not local material, Ekki is often used in marine / riparian environment because of its durability. The bridges are supported by footings – the deepest being 1.6m into the higher bank. Though the proposed footbridges are additional features in a sensitive landscape, they are in keeping with the rural character due to subservient scale and location. Core Strategy Policies CP1 and CP3 state that planning permission will be granted for schemes that provide a functional, accessible, safe, secure and adaptable proposals. Considering the wording within CP1 and CP3, the 2no. footbridge's ancillary nature to the proposed works and benefits to accessibility when weighed up on balance with the minor change in appearance proposed would have no detrimental impact on the character, or landscape character area J1 and therefore policy compliant.
12. The proposed works to divert the Emm Brook, including the ancillary operational works for example footbridge creation, flow monitor installation etcetera by restoring the historic paleo channel would enhance the J1 Landscaped Character area and would have no detrimental impact on the rural character of the directly local area, by providing an enhanced green core with greater landscape character by virtue of the proposed meanders, defensive planting and footbridges. These operational works

will permit greater access for members of the public, including those with disabilities and will be of greater visible appearance.

13. Several representations have been received in regard to the platform height of the SERT southern bridge as proposed being within the 10-year climate change ratio. The area to which the southern bridge would be located as existing is a low point, and susceptible to flooding rendering it inaccessible at points, this is due to the location's nature as a functional floodplain within Flood Zone 3. The applicant does not wish to change the natural geomorphology and floodplain character as this may have wider impacts on surrounding areas that are not natural floodplains by nature, thereby safeguarding residential amenity in the local vicinity.
14. Excess flow to a large extent will be controlled via flow control device, which will divert water into the existing channel at times at high volume to mitigate this, however, when this is not possible the proposed southern bridge is potentially susceptible to surface water. It is not the applicant's intention to raise the height of the bridge or surrounding topography, as this would have greater character and drainage impacts of the J1 landscaped area and would be overly prominent in the context of Woollahill Meadows, to which WBC concur. To this effect, the bridge has been designed in a way to drain efficiently and promote an improved access than existing, more often than existing. On balance, despite the representations received from residents, the loss of this functional flood plain to promote constant access is not outweighed by preventing all risk of surface water flooding.
15. In terms of management and maintenance at times of excess flow, the proposed bridges are proposed to feature non-slip surfaces, which following drainage will render a safe passage for access and maintenance. The bridge materials themselves, Ekki, is suitable in riparian context and will be durable to withstand surface water at times of excess flow. Following completion of the works by SERT, WBC will be responsible for their upkeep and maintenance including silt sweeping.
16. Notwithstanding the significant benefits to the accessibility, maintenance and ecological permeability of this green core of Wokingham, the works to facilitate this in the context of the major development location would be minimally appreciable from Riverside Park and Brookside and therefore in their current form would have no significant impact on the character of the wider area, hence compliant with Core Strategy Policies CP1 and CP3.

Operational works and Infrastructure:

Regrading and Profiling:

17. To facilitate the free flow of water from the existing channel to the historic paleo channel, a degree of regrading is required to make the paleo channel a more efficient path for water to run. This would include the excavation of silt, and reduction in watercourse levels by c1.1metres with new levels between c43 metres and c44 metres. D1 exemption from the Environment agency will allow SERT deposit dredging spoil on the banks of the water it was dredged from and treat it by screening and removing water. In line with the submitted Arboricultural Report and D1 exemption, the silt as far as possible is proposed to be removed by tracked vehicles and deposited on the banks and at no more than 100mm over the ground improving the soil and growing environment of native flora and trees. The excess silt that is surplus to achieving this aim will be deposited at a license waste processing centre.

The methods of earth movement will be clarified within the CEMP which requirement is appended to the recommendation for approval under condition 6.

Existing Foul Sewage Pipework:

18. To account for existing Thames Water foul sewage pipework (to be retained) which relies on the historic (and existing for note) courses to intersect, the pipe soffit would lay roughly 1.6 metres above the regraded channel, which would be above predicted water level and mean flow by c0.1 metres. Though visible, this would not hinder aquatic permeability.

High voltage Electric Cable

19. There is an SSE owned high level, high voltage cable that passes beneath the paleo channel at chainage 301m along the channel. Site investigations by the applicant have confirmed this utility is at a sufficient depth below the final proposed bed level of the channel restoration works, that via excavating the silt, no incursion will be made. Therefore, there are no objections in relation to impacts on the existing infrastructure network.

Clean Water pipe

20. The site features a clear water pipe, which passes through the the paleo channel at chainage 351m. Site investigations by the applicant have confirmed that this utility is at a sufficient depth below the final proposed bed level of the channel restoration works, that via excavating and reprofiling the channel, no incursion will be made. Therefore, there are no objections in relation to impacts on the existing infrastructure network.

Residential Amenities:

21. Core Strategy Policy CP1 (point 8) states that planning permission will be granted for development proposals that avoid areas where pollution (including noise) may impact upon the amenity of future occupiers.
22. The application site itself, despite being located within a major development location is relatively remote. The closest dwelling being situated in Brooke Close, C100 metres from the mid-course (c153metres along the proposed paleo channel) of the proposed route of diversion.
23. Though the completed proposal is unlikely to have any significant impacts on neighbouring amenity, due to the degree of operational works required to deliver this diversion, the construction phase could have a minor albeit temporary impact on the soundscape and visual amenities of users of Riverside Park and adjoining occupiers. Through consultation with Environmental Health and Highways Officer, these potential impacts were noted, and as such, to mitigate these potential impacts to amenity, a CEMP (appended as condition 6) detailing an acceptable acoustic mitigation strategy and access/ storage for construction would be submitted to the LPA for approval prior to the commencement of works.

Access and Movement:

24. Core Strategy Policy CP6 (point B) states that planning permission will be granted for proposals that are located where there are or will be at the time of development choices in the mode of transport available and which minimise the distance people

need to travel. CP6 goes on to state (in point G), that planning permission will be granted for proposals that do not cause highway problems or lead to traffic related environmental problems.

25. Riverside Walk connects with the residential cul-de-sac, Brookside which is classed as an adopted Highway. This provides access to residential properties in the north direction and connects with Morrisons Superstore access road, which further connects with Woosehill in the south-west direction. Officers note that this route/access will be maintained for pedestrians by providing 2no. proposed footbridges, as discussed above.
26. Notwithstanding the Figure 13 within the submitted Design and Access which indicates the public exclusion zone which will be managed during the works through temporary fencing, diversions and signage. It is noted that public access will be maintained where safely could possible during the construction phase, and in line with Officer feedback, the South East Rivers Trust are working with Wokingham Borough Council to develop a more detailed 'Access Plan'. As such, SERT has agreed to provide an 'Access Plan' to Wokingham Borough Council which is appended as condition 7, for approval from Highway Development Control prior to commencement of delivery. This Access Plan will confirm that the existing route will be kept safe, and pedestrians will have provided a safe path having sufficient clearance with maintenance vehicles/construction vehicles be maintained at all times.

Sustainability:

27. The proposal would provide significant benefits to social and environmental sustainability within the local area. The recreational benefits through better access to higher quality green spaces, which will provide a better aesthetic to the community park and contribute to increased health and wellbeing in the community. Improving the access to crucial pieces of green infrastructure in urban areas, which the application is classed as, including 2 no. pedestrian footbridge within the southern and central portion of the application site. The delivery of the proposed diversion will be purely undertaken by community volunteers, therefore promoting social sustainability and connection through volunteering opportunities, events and the yellow fish campaign will provide opportunities for environmental education of children and adults in the community.
28. In addition to the social sustainability improvements in principle, the proposal provides significant environmental sustainability enhancements as the increased habitat creation and connectivity will contribute to a conservation of genetic resources in fish (and other aquatic organisms) populations in the catchment, as they will be able to mix and create more resilient populations with a diverse genetic pool. These more resilient populations will be better able to deal with perturbations, becoming more resilient to climate change and disease.
29. The increased channel capacity created through restoring the historic paleo channel will contribute to flood risk reduction in the nearby communities by retaining the existing channel as an alleviation measure. The resulting reduction in polluting inputs will improve the water quality in the catchment by reducing the flash response to rainfall typical of urban catchment. Retrofitting of the sustainable urban drainage feature will contribute to cleaning pollutants out of water and recycling these nutrients

back into the ecosystem, therefore complying with the provisions of Core Strategy Policy CP1.

Flooding and Drainage:

30. Core Strategy Policy CP1 states that planning permission will be granted for schemes that ensure the provision of adequate drainage and avoid increasing (and where possible reduce) risks of or from all forms of flooding (including from groundwater).
31. MDD Local Plan Policy CC09 states that all sources of flood risk, including historic flooding, must be taken into account at all stages and to the appropriate degree at all levels in the planning application process to avoid inappropriate development in areas at risk of flooding.
32. Paragraphs 152-173 of the National Planning Policy Framework (NPPF) covering planning for flooding and climate change. Paragraph 154 specifically mentions that new development should avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.
33. MDD Local Plan Policy CC09 requires that proposals in Flood Zones 2 or 3 must take into account the vulnerability of proposed development. The proposed scheme lies within the functional floodplain of Flood Zone 3 and therefore the proposals vulnerability must be assessed. As the scheme comprises channel realignment and re-meandering with the aim of returning this stretch to a more natural state and improving the fish passage, the works cannot be located within an area of lower flood risk and would be not classed vulnerable development. Therefore, complying in part with CC09.
34. In line with the proposal's location within Flood Zone 3 and the functional flood plain, Hydraulic modelling was undertaken by the applicant which demonstrates that the proposed design does not increase flood risk either upstream or downstream and that no properties are at risk from flooding at the 100 year plus climate uplift events, in accordance with its low vulnerability classification.
35. The full length of the paleo channel will be reconnected and restored in order to bypass the weir at the downstream end of the site. The off-take will feed back into the downstream weir pool a few meters away from the weir. The reconnected channel and increased channel length in this area to contain a larger volume of flow. The diverted course will be significantly naturally enhanced and diverse in comparison to the existing channel which is uniform and highly modified.
36. Though moderately low risk, the removal of the 1no. culverts in the central course may temporarily increase discharge which could have knock on impacts in regards to surface water flooding. However it is considered that this can be mitigated. Construction details need to be provided in the way of a method statement which acknowledges the existing geomorphology, culverted flow and takes into account the proposed earth works/ culvert removal. The applicant following discussion with officers and the Environment Agency has stated that this will be managed by the existing drainage system, pumping equipment that can cope with the existing flow and temporary dams. Notwithstanding initial discussions on culvert removal method

statement, further details are secured by condition 4 which will be provided for the LPA's review prior to commencement.

37. As SERT plan to hand over the works upon completion to WBC for adoption, details of management and maintenance are required to be submitted to the LPA as appended to the recommendation in condition 3. This maintenance and management plan will detail arrangements for adoption, display maintenance access, provide a contamination risk assessment and methods of continuous silt removal to retain the reprofiled course. It should be noted that the adoption process is separate to the planning process and will be scrutinized in further detail prior to WBC's management outside of the remit of this submission and accompanying conditions. However the drainage team have reviewed the application and have not raised any objection.
38. Following initial objection from the Environment Agency, the applicant has worked closed with the EA and undertaken further work on the fluvial modelling and hydrology to inform the Flood Risk Assessment for this proposal. In line with this additional modelling work, the Environment Agency have withdrawn their objection in support of the proposal. The applicant's modelling confirms that the proposal will not adversely impact flooding of land or properties in the area despite location within Flood Zone 3 and would not adversely impact the functional floodplain in which it resides and is therefore, policy compliant in line with Core Strategy Policy CP1, MDD Local Plan Policy CC09 and Paragraphs 99-104 of the NPPF.

Landscape and Trees:

39. Core Strategy Policy CP3 states that planning permission will be granted for schemes that have no detrimental impact upon important ecological, heritage, landscape (including river valleys) or geological features or water courses and maintain or enhance the ability of the site to support fauna and flora including protected species. Core Strategy Policy CP1 states that planning permission will be granted for schemes that Maintain or enhance the high quality of the environment.
40. MDD Local Plan Policy CC03 states in point 2 that Development proposals should demonstrate how they have considered and achieved the following criteria within scheme proposals:
- a) Provide new or protect and enhance the Borough's Green Infrastructure networks, including the need to mitigate potential impacts of new development
 - b) Promote accessibility, linkages and permeability between and within existing green corridors including public rights of way such as footpaths, cycleways and bridleways
 - c) Promote the integration of the scheme with any adjoining public open space or countryside
 - d) Protect and retain existing trees, hedges and other landscape features
 - e) Incorporate high quality, ideally, native planting and landscaping as an integral part of the scheme.

41. MDD Local Plan policy TB21 states that proposals must demonstrate how they have addressed the requirements of the Council's Landscape Character Assessment, considering the application site's J1 character including the landscape quality; landscape strategy; landscape sensitivity and key issues. TB21 further goes on to state that proposals shall retain or enhance the condition, character and features that contribute to the landscape.
42. As acknowledged within the site and character description above, the site falls within Landscape Character Area J1 'Wokingham- 'Winnersh Settled and Farmed Clay'. 'The Emm Brook flows through the area and its floodplain creates a green core through the urban areas'.
43. One of the key issues affecting the area is drainage operations which have resulted in loss of wetland habitats along the Emm Brook. The landscape strategy is to conserve the open character of the landscape between settlements and to enhance the existing urban/rural interface, of which further details have been requested through condition 9. One of the key aspects to be enhanced is the setting of the Emm Brook, where there are opportunities for habitat creation, particularly along the stream corridors. Enhancing wetland habitats associated with the Emm Brook through appropriate management and seeking to extend the area of wetland habitats through re-creation of wetlands including water meadows and wet woodland is one of the key landscape guidelines. In addition; the application proposes the conservation and enhancement of the integration of urban edges through wooded boundaries, hedgerows and large-species trees to provide visual screening and a positive interface between the built up and rural areas that provides an appropriate setting for Wokingham and Winnersh.
44. The installation of the footbridge and reprofiling (channel widening) to the south-central of the site will result in the removal of 5 trees as detailed within the submitted AIA. These 5 no. trees identified for removal are as follows; 2no. multi-stemmed Alders T10 and T11, 1no. Common Alder T18, 1 Crack Willow T22 and 1no. Hawthorn T12. The Alders are classified as 'B' quality No. 4404 and 4405 and the Hawthorn in minor in scale, ivy clad and suppressed. The South East Rivers Trust has been in contact with the Wokingham District Veteran Tree Association, who are supportive of the wider benefits of the scheme and acknowledge the minor loss of low quality landscape features. Several trees appear to be located very close to the channel edge such as the group T23-27 and details of their protection are contained within the submitted AIA and TPP. Compliance with these documents are appended to the application within Conditions 10 and 11.
45. Trees requiring works to facilitate the development include; T2-5 Willows to be coppiced, removal of scrub beneath T9 to allow access for silt removal. Where trees/native hedging and scrub is removed, replacements are secured as part of a site wide Landscape / Management Plan and soft landscaping scheme under Condition 8 and 9. Some further low-quality trees / scrub that may be required once the project is underway (para. 5,12 of Tree Report), however these will be suitably compensated and first approved in writing by the LPA secured via Conditions 8 and 9.
46. Tree protection is to be achieved by track mats over woodchip, and in more sensitive areas Hazel and Chestnut faggots will be used that can be left in situ for biodiversity gains and left to decompose naturally. The method of silt removal with a track

excavator using mats or faggots to protect the soil from compaction is acceptable. Further details of works and excavation that may come to light during construction has been secured by condition 10 in the form of an updated Arboricultural Method Statement.

47. The proposals meet with the recommendations contained within the Wokingham Borough Landscape Character Assessment (WBLCA) and are also compliant with Policy CC03 and Policy TB21, TB22 and TB23 of the MDD Local Plan. The proposals are compliant with CP1, CP3 of the Core Strategy and therefore are acceptable from a Trees and Landscape perspective.

Environmental Health:

48. Proposals must demonstrate how they have addressed noise impacts to protect noise sensitive receptors (both existing and proposed) from noise impacts in line with Appendix 1 of the MDD Local Plan which assesses the acceptability of a proposed development that emits noise. The Council will determine the effect the noise will have on nearby NSRs taking into account both daytime and night-time noise levels.
49. Construction and clearance of the proposed channel diversion are likely to involve the use of machinery including chain saws on a temporary basis. Local volunteers will be a key element to the project and that work therefore is assumed in part to occur outside normal working hours. To control the potential impacts to local amenities that this may have, the requirement for a submission of a 'Construction Environmental Management Plan' (CEMP), document which addresses noise and other environmental impacts such as burning that could have an adverse effect on residential amenity has been appended as Condition 6.
50. Though the construction phase of development would have minor impacts on the nearby receptors at 'Brookside', due to the temporary nature of the works and separation distance of c150metres away from the nearest residential dwelling within 'Brookside', these impacts are considered minor when weighed on balance with the significant ecological and geomorphological benefits. The temporary nature of the construction and enabling works would have minor impacts on the amenities of residents adjoining Brookside, however not to an extent that would warrant objection or an alternative stance taken on the application.

Ecology:

51. Core Strategy Policy CP7 states that development will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:
- i) Mitigation measures can be put in place to prevent damaging impacts; or
 - ii) Appropriate compensation measures to offset the scale and kind of losses are provided.
52. MDD Local Plan policy TB23 states that planning permission will only be granted for proposals where they comply with policy CP7 – Biodiversity of the Core Strategy and also demonstrate how they:

- a) Provide opportunities, including through design, layout and landscaping to incorporate new biodiversity features or enhance existing
 - b) Provide appropriate buffer zones between development proposals and designated sites as well as habitats and species of principle importance for nature conservation
 - c) Ensure that all existing and new developments are ecologically permeable.
53. Paragraph 175(d) of the National Planning Policy Framework states: “When determining planning applications, local planning authorities should apply the following principles: d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”
54. The proposal to reconnect the paleo channel and bypass the existing weir has a primary objective to overcome a barrier to fish passage that has been identified as an ecological reason for failure of the Emm Brook under the Water Frameworks Directive. Following review of the submitted application documents, the proposed development will provide an ecological enhancement to the river network and improve aquatic permeability.
55. The Council’s Ecologist has stated that significant survey effort has been undertaken for the local planning authority to be able to consider the likely presence (or otherwise) of protected species that might be affected by this development. The Council’s Ecologist is further satisfied that the current pond on site is unlikely to support a population of great crested newts currently, and the conversion to an online pond will not adversely affect this protected species.
56. The trees on site have been assessed for their bat roost potential through a ground level tree assessment. The trees with bat roost potential which are proposed to be felled or coppiced have had follow up activity surveys to a sufficient standard. Whilst these have not confirmed the presence of a bat roost in the trees at risk, the Council’s Ecologist has formed the view that the recommended precautionary mitigation measures proposed for the tree work should be implemented in order to minimise the risk to this protected species group. In line with the above, Condition 5 has been appended to the recommended approval to secure this.
57. As above, It is recognised that the current offline pond on the line of the paleo channel will be converted to an online pond. This will change the inherent properties of the pond and switch the suitability of the pond to a different set of species. The LPA are in agreement with the applicant’s ecologist’s assessment that it is unlikely that the online pond will be suitable to support successful breeding of the local frog population. The common frog has only very limited protection and is not currently recognised as a species of principal importance, however, does contribute to the current bio-diversity on site.
58. The functional loss of a frog breeding pond is not a matter that would require a protected species licence nor necessarily contravene Core Strategy policy CP7. However, it is important to recognise that this species has limited other suitable

breeding places within the public open space and so the impact of the development could be significant to the species.

59. Officers note that there is not conclusive survey effort to rule out that this pond is also used by common toad for breeding. Common toad is a species of principal importance and the use of a pond for breeding by this species would qualify the pond as being habitat of principal importance. Policy CP7 would only allow loss of a pond which is habitat of principal importance on the basis that sufficient compensation habitat of principal importance is created.
60. Following a precautionary approach, it is reasonable for the local planning authority to take the view that an offline compensation pond must be created within the public open space of Woosehill Meadows as a mitigation measure. Therefore, details covering an off-line mitigation pond have been secured via S106 which has been agreed by the applicant. A further Memorandum of Understanding (MOU) has been submitted by WBC in agreeing to provide land for this pond delivery and to maintain it following completion.
61. The applicant will be working closely with the LPA's Biodiversity officer and their own ecological consultant to ensure the timing for any works causes the least impact on the local ecology as possible. SERT have confirmed that works will not be undertaken during a frog spawning period, but there could be discussions on how to mitigate the ecological impacts such as removing a section of the dam that is maintaining the current water levels.
62. On this basis the proposals, subject to conditions are considered acceptable and are compliant with Policy TB23 of the MDD Local Plan. The proposals are compliant with CP1, CP3 of the Core Strategy and therefore are acceptable and supported from an Ecological perspective.

Sustainable Design/Construction:

63. The South East's and Loddon Catchment water resource issues justify a policy approach to meet full CfSH levels and minimum standards for water use. The Environment Agency 'Areas of Water Stress – Final Classification (2007)' shows that the Borough is an area of severe water stress. The Loddon Catchment acquires 55% of its water supply from groundwater.
64. Climate change combined with growing population and household formation and high-water usage rates will impact on water resources and water quality. The proposal has no significant impact on this, and would have a modest, positive impact on water retention with increased channel capacity (and the retention of the existing).

Public Rights of Way:

65. There are no public rights of way within the proposed development, however the Greenway Route D (Section 2.1), forming part of Greenway Project 47 will run through this site.
66. To ensure a holistic approach is taken, the Greenways team has discussed the proposal with the South East Rivers Trust to ensure that the two schemes will be linked to ensure that there will not be a conflict with the finished schemes, or during

construction. This said, the current application does not seek approval for the eventual Greenways 47 bridge, which will be submitted for consideration at a latter date. Therefore, there are no objections raised in regard to Public Rights of Way or Greenways.

Implementation:

67. The wider project is dependent on funding from the Environment Agency which is time limited. When considering the degree of works undertaken, significant socio-environmental benefits and the degree of special consideration given to existing biodiversity on site (which will inform the timescales of various stages of the project), to ensure the delivery of the works, a longer period of implementation has been secured via Condition 1 (timescales) of 5 years. Given the nature of the scheme, it is not one that has any significant impacts other than enhancements to the landscape which is in the public interest and therefore these special circumstances afford a longer period of implementation.

Employment Skills:

68. Though the proposal does not generate any additional employment opportunities, it does generate locally sourced volunteers, skilled and unskilled who will aid the removal of silt and carry out manual tasks to facilitate the diversion.

69. The applicant concurs, with reference to the submitted Planning Statement, that Local volunteers are a key element to this project, and one which opens up opportunities for community members to develop new skills in practical conservation delivery. This meets one of the UK Biodiversity Action Plan objectives, to 'increase public awareness and involvement'. Through the practical river restoration and 'yellow fish' urban diffuse pollution campaign, local schools will be engaged with to educate them on environmental issues. These educational and new skills opportunities will encourage the future 'green economy' in the Berkshire area. This delivers on the policy to 'connect people with the environment to improve health and wellbeing' outlined in the 25 Year Environment Plan.

Conclusion:

70. When weighing up the significant ecological and geomorphological benefits the scheme proposes, the scheme is in clear accordance with Core Strategy Policies CP1, CP3, CP6 and CP9, MDD Local Plan Policies CC01, CC02, CC03, CC09, TB21, TB22 and TB23, Paragraphs 99-104, 154 and 175(d) of the National Planning Policy Framework and the provisions within the Wokingham Borough Design Guide.

71. The significant ecological enhancements of improving aquatic permeability and improving these species resilience, combined with a sound layout in restoring the historic Paleo Channel, promotion of community cohesion and education, increased on site permeability, reduced flood risk and enhanced native landscaping will outweigh any minor harm to the application site's position within the sensitive J1 landscape locations, minor impacts to residential amenities during the construction and delivery and loss of low quality flora (with suitable mitigation secured as condition 8).

72. With the above in mind, the application is recommended for approval subject to the conditions outlined below in appendix 1 and subject to the Heads of Terms within the S106 legal agreement as outlined in the recommendation.

The Public Sector Equality Duty (Equality Act 2010)

In determining this application the Council is required to have due regard to its obligations under the Equality Act 2010. The key equalities protected characteristics include age, disability, gender, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief. There is no indication or evidence (including from consultation on the application) that the protected groups identified by the Act have or will have different needs, experiences, issues and priorities in relation to this particular planning application and there would be no significant adverse impacts upon protected groups as a result of the development.

APPENDIX 1 - Conditions / informatives

APPROVAL subject to the following conditions and informatives:

Timeframe for implementation

1. The development hereby permitted shall be begun before the expiration of five years from the date of this permission.

Reason: In pursuance of s.91 of the Town and Country Planning Act 1990 (as amended by s.51 of the Planning and Compulsory Purchase Act 2004).

Approved details

2. This permission is in respect of the following submitted application plans, documents and drawings received by the Local Planning Authority:

Emm Brook Project – Location Plan

Emm Brook – Proposed Site Plan – Rev C

GHY-SERT-04-DOC-04B - Sewer Design document

GHY-SERT-04-DWG-11b - First sewer mod

GHY-SERT-04-DWG-25 Second sewer mod

Online Pond Details – Drg- 12

Typical Section – Drg – 7

Profile – Section 2A – Drg- 5

Profile – Section 1A – Drg- 4

Plan Overview – Drg – 1

MW-21-0124 – Arboricultural Impact Assessment – Rev E

ACAD_MW-21-0124- Tree Protection Plan – Rev E

Emm Brook, Woosehill - Bat Emergence & Re-Entry Survey (R2332a)

Bat Emergence & Re-Entry Survey report – Prepared by John Wenman Ecological Consultancy, ref: R2818/a, July 2021

Extended Phase 1 Ecological Survey – Prepared by John Wenman Ecological Consultancy, ref: R2207/c, April 2019

Phase 2 Ecological Surveys (Bats and Great Crested Newts – Prepared by John Wenman Ecological Consultancy, ref: R2220/b, May 2019

Emm Brook, Woosehill - Phase 2 Ecological Surveys ADDENDUM (R2708a)

A120099-TGEE-ZZ-XX-RP-C-0001 Rev P01 - AIP - SERT Bridges

Flood Risk Assessment dated 18th May 2022

Report – Flood estimation report – Emm Brook, dated 10th June 2022

Report – Model re-run for updated 100 year return period flows, Project UK 20-1057 Emm Brook, dated 18th May 2022

E5741-20190234-191795-02 drawing Southern Bridge A, Woosehill, Wokingham (24-06-2022)

E5741-20190234-221325-01 drawing Northern Bridge B, Woosehill, Wokingham (24-06-2022)

The development shall be carried out in accordance with the approved details unless other minor variations are agreed in writing after the date of this permission and before implementation with the Local Planning Authority.

Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the application form and associated details hereby approved.

Management and Maintenance Plan

3. No development shall be commenced until a management and maintenance plan (including SuDS) for the lifetime of the development which shall include the arrangements for adoption by any public authority or statutory undertaker to secure the operation of the scheme throughout its lifetime, has been submitted to and approved in writing by the LPA.

The plan should fully detail the access that is required to reach surface water management component for maintenance purposes. It should also include a plan for safe and sustainable removal and disposal of waste periodically arising from drainage system, detailing the materials to be used and standard of work required including method statement. A contamination risk assessment also required before start of the works. This is to prevent pollution and fish in the existing brook during or after construction works. The approved maintenance plan shall be implemented in full in accordance with the agreed terms and conditions.

Reason: To ensure the continued operation and maintenance of drainage features serving the site and avoid flooding and pollution.

Culvert Method Statement

4. Prior to the removal of the 1no. Culvert currently on site, a method statement of removal (including pre-earthworks drawings) and temporary potential flood mitigation measures are to be submitted to the Local Planning Authority for approval in writing. The approved method statement shall be implemented in full in accordance with the agreed terms and conditions.

Reason: To ensure the continued operation of drainage features serving the site and avoiding flooding during the construction phase of development.

Species of Principal Importance

5. Works are to be carried out in full accordance with the mitigation measures given in paragraphs 4.1.2 and 4.1.3 of the submitted Bat Emergence & Re-Entry Survey report (John Wenman Ecological Consultancy, ref: R2332/a, September 2019) unless otherwise agreed in writing by the council.

Reason: To ensure that bats, a protected and priority species (as per the NPPF), are not adversely affected by the proposal.

Construction Environmental Management Plan (CEMP)

6. Before commencement of the development hereby permitted a Construction Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the local planning authority. Construction of the development shall not be carried out otherwise than in accordance with the approved CEMP, which shall include the following matters:

- i) a construction travel protocol or Green Travel plan for the construction phase including details of parking and turning for vehicles of site personnel, operatives and visitors;
- ii) loading and unloading of plant and materials;
- iii) piling techniques;
- iv) storage of plant and materials;
- v) programme of works (including measures for traffic management and operating hours);
- vi) provision of boundary hoarding and lighting, including hoarding to adjacent housing/gardens along the eastern boundary of the site. During construction the 2 areas of retained woodland will be screened using impermeable material of at least 2.4m in height in a neutral or dark colour;
- vii) protection of important trees, hedgerows and other natural features;
- viii) details of proposed means of dust suppression and noise mitigation;
- ix) details of measures to prevent mud from vehicles leaving the site during construction;
- x) details of any site construction office, compound and ancillary facility buildings. These facilities shall be sited away from woodland areas;
- xi) lighting on site during construction;
- xii) measures to ensure no significant on-site fires during construction;
- xiii) monitoring and review of the CEMP;
- xiv) implementation of the CEMP through an environmental management system;
- xv) details of the temporary surface water management measures to be provided during the construction phase;
- xvi) details of the excavation of materials and the subsurface construction methodology;
- xvii) details of the haul routes to be used to access the development; and
- xviii) appointment of a Construction Liaison Officer.

Reason: To minimise the environmental impacts of construction and to protect residential amenity. Relevant policy CP1 and CP3.

Access Plan

7. Before the commencement of the development hereby approved, an access plan shall be submitted for approval in writing from the LPA. This access plan should detail safe pedestrian routing/ pathways through the application site, having sufficient clearance with maintenance/ construction vehicles should be provided and maintained as approved at all times.

Reason: To ensure that access to green infrastructure for residents are not prejudiced by the development hereby approved. Relevant policy CP1 and CP3.

Landscape Proposals

8. Prior to the commencement of the development, full details of both hard and soft landscape proposals shall be submitted to and approved in writing by the local planning authority. These details shall include, as appropriate, proposed levels or contours, other vehicle and pedestrian access and circulation areas, hard surfacing materials and minor artefacts and structure. Soft landscaping details shall include planting plan, specification (including cultivation and other operations associated with plant and grass establishment), schedules of plants, noting species, planting sizes and proposed numbers/densities where appropriate, and implementation timetable. All hard and soft landscape works shall be carried out in accordance with the approved details prior to the occupation of any part of the development or in accordance with a timetable approved in writing by the local planning authority. Any trees or plants which are proposed to be removed, or within a period of five years after planting, are removed, die or become seriously damaged or defective, shall be replaced in the next planting season with others of species, size and number as originally approved and permanently retained.

Reason: In the interests of visual amenity. Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

Landscape Management Plan

9. Prior to the commencement of the development a landscape management plan, including long term design objectives management responsibilities, timescales and maintenance schedules for all landscape areas shall be submitted to and approved in writing by the local planning authority. The landscape management plan shall be carried out as approved.

Reason: In order to ensure that provision is made to allow satisfactory maintenance of the landscaping hereby approved. Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

10. Arboricultural Impact Assessment

Works shall be carried out in accordance with the hereby approved MW-21-0124 – Arboricultural Impact Assessment – Rev E received by the LPA on 02/06/2023. No development or other operations shall take place except in complete accordance

with the details as set out in the Arboricultural Method Statement so-approved (hereinafter referred to as the Approved Scheme). If upon commencement of development further tree works are required, the applicant is to submit an updated Arboricultural Impact Assessment to cover these works where they deviate from the hereby approved scheme for approval in writing by the LPA.

Reason: To secure the protection throughout the time that the development is being carried out of trees shrubs or hedges growing within or adjacent to the site which are of amenity value to the area, and to allow for verification by the local planning authority that the necessary measures are in place before development and other works commence Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

11. Tree Protection

a) No development or other operation shall commence on site until the tree protection measures approved within the approved ACAD_MW-21-0124- Tree Protection Plan – Rev E received by the LPA on 02/06/2023 shall be implemented in complete accordance with the Approved Scheme for the duration of the development (including, unless otherwise provided by the Approved Scheme) all site preparation work, tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening or any other operation involving use of motorised vehicles or construction machinery.

b) Implementation of the measures for tree protection identified on the Approved Scheme shall be overseen by a project arboriculturist who shall provide written confirmation to the Local Planning Authority that the measures have been implemented, within 7 working days of their completion.

c) No excavations for services, storage of materials or machinery, parking of vehicles, deposit or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within an area designated as being fenced off or otherwise protected in the Approved Scheme.

d) The fencing or other works which are part of the Approved Scheme shall not be moved or removed, temporarily or otherwise, until all works including external works have been completed and all equipment, machinery and surplus materials removed from the site, unless the prior approval of the Local Planning Authority has first been sought and obtained.

Reason: To secure the protection throughout the time that the development is being carried out of trees shrubs or hedges growing within or adjacent to the site which are of amenity value to the area, and to allow for verification by the local planning authority that the necessary measures are in place before development and other works commence Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

Informatives

1. The applicant is advised that the planning approval should be read in conjunction with the S106 dated INSERT.
2. Adequate precautions shall be taken during the construction/ set up period to prevent the deposit of mud and similar debris on adjacent highways.
For further information contact Corporate Head of Environment on tel: 0118 974 6302.
3. Any trees planted in connection with the development should be done so in accordance with the SGN tree planting guidelines, as outlined in section 20 of SGN document referenced SGN/PM/MAINT/5.
4. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received and subsequently determining to grant planning permission in accordance with the presumption in favour of sustainable development as set out in the NPPF.
5. The applicant is reminded that this approval is granted subject to conditions which must be complied with prior to the development starting on site. Commencement of the development without complying with the pre-commencement requirements may be outside the terms of this permission and liable to enforcement action. The information required should be formally submitted to the Council for consideration with the relevant fee. Once the details have been approved in writing the development should be carried out only in accordance with those details. If this is not clear please contact the case officer to discuss.
6. The applicant should note that though indication of the Greenways Bridge has been provided within the submitted documents for illustrative purposes, this permission does not stipulate approval of these works and a separate application may need to be submitted for its consideration at a latter date.

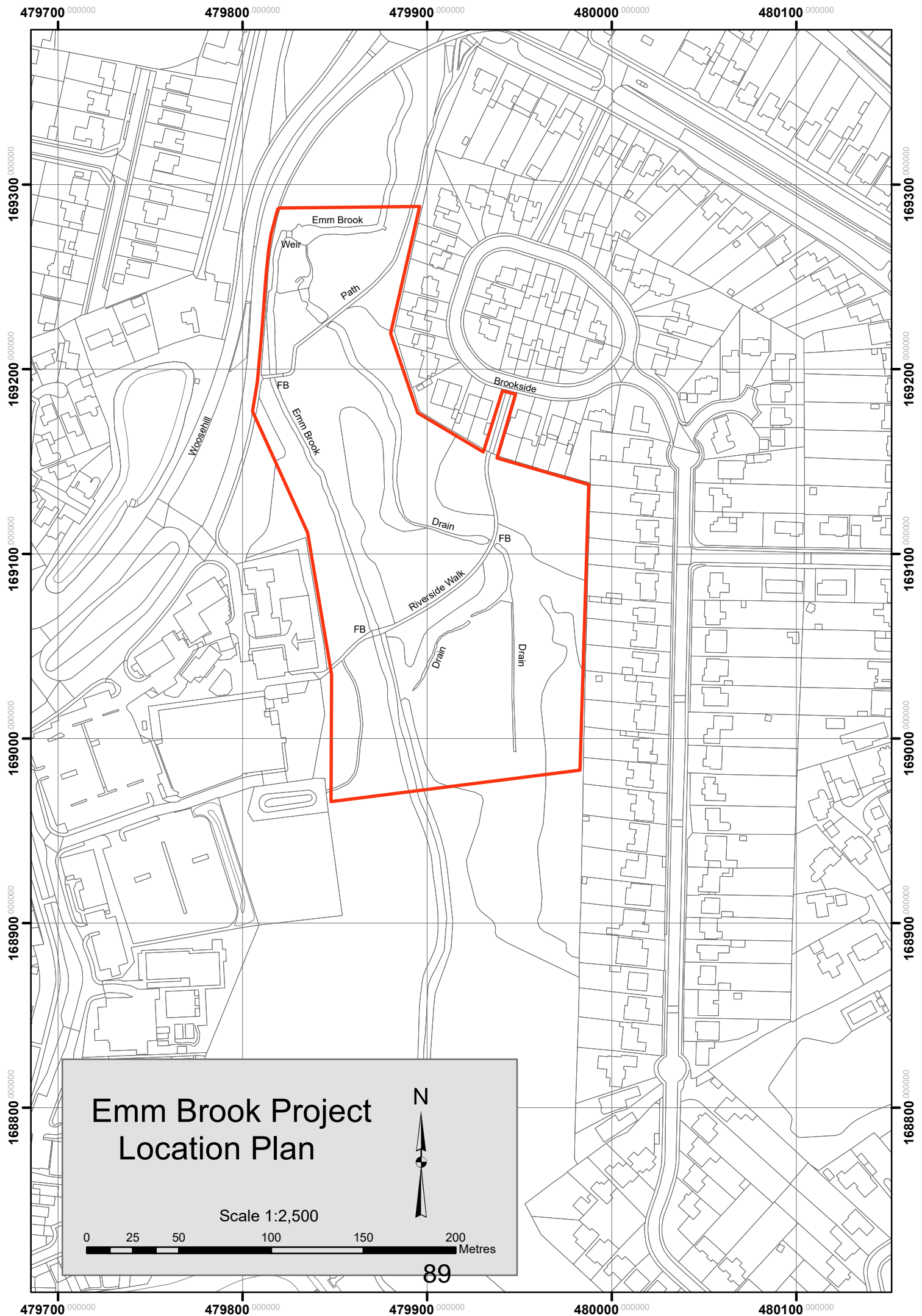
APPENDIX 2 - Parish Council Comments

PLANNING REF : 203617
PROPERTY ADDRESS : Town Hall Market Place
: Wokingham
: RG40 1AS
SUBMITTED BY : The Wokingham Town Council P&T Committee
DATE SUBMITTED : 10/03/2021

COMMENTS:

The Committee support this application but have following comments.

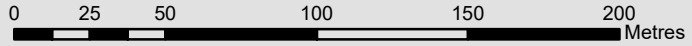
&65533;Can the habitat of the frogs be protected?
&65533;Could the jubilee oak tree in work compound be protected? &65533;Would
it be possible to relocate bridge slightly to save removal of trees?
&65533;Concern over bridge height being adequate.



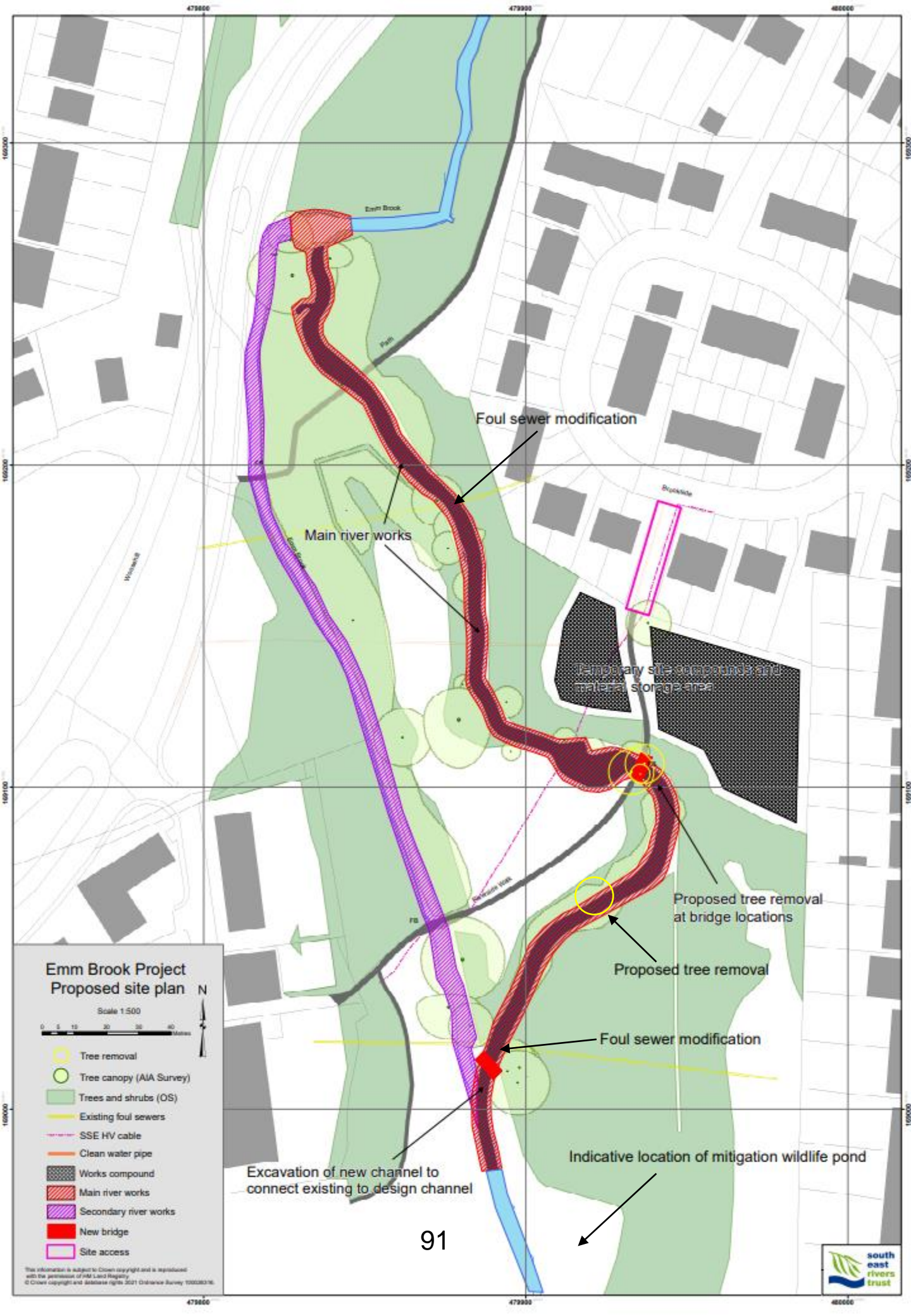
Emm Brook Project Location Plan



Scale 1:2,500



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**Emm Brook Project
Proposed site plan**

Scale 1:500



- Tree removal
- Tree canopy (AIA Survey)
- Trees and shrubs (OS)
- Existing foul sewers
- SSE HV cable
- Clean water pipe
- Works compound
- Main river works
- Secondary river works
- New bridge
- Site access

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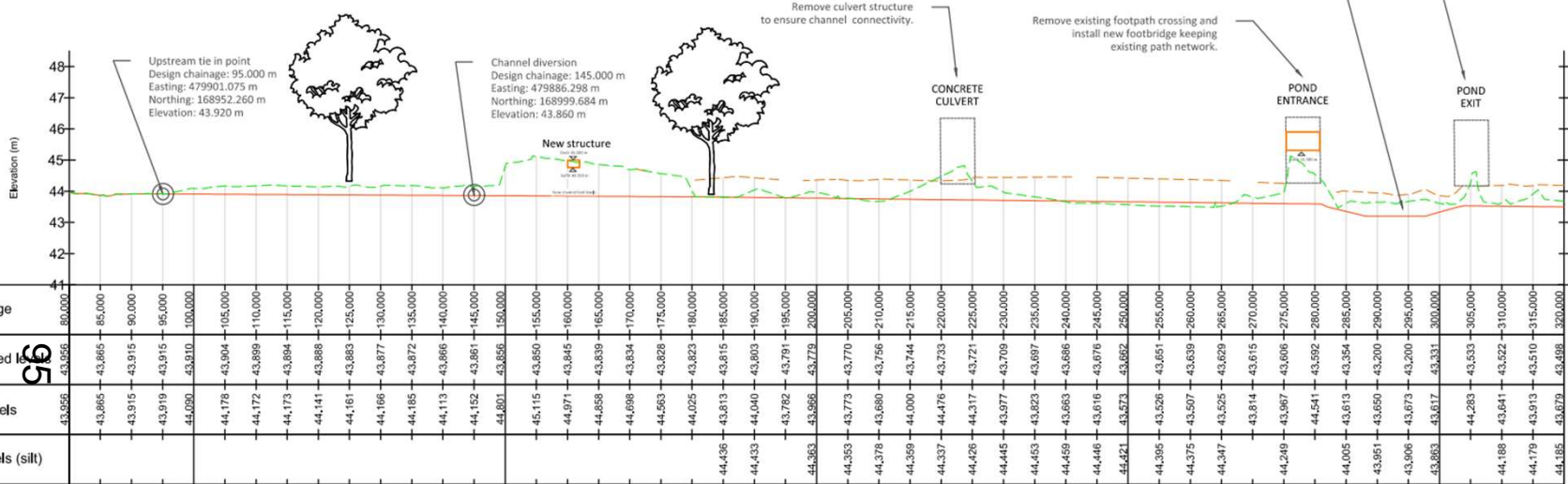
93



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION			
In addition to the hazards/risk normally associated with the types of work detailed on this drawing, note the following risks and information. * Please note that risks listed here are not exhaustive.			
CONSTRUCTION			
* Working in close proximity to deep water environments. * Disturbing or striking existing utilities and services.			
MAINTENANCE/CLEANING			
* No unusual hazards/risks			
DECOMMISSIONING/DEMOLITION			
* No unusual hazards/risks			
It is assumed that all works will be carried out by a competent contractor working.			
LEGEND			
Existing features			
Existing channel	Historic channel	Weir	Weir walls structure
Weir walls structure	Existing structure	Vegetation hedge	Large wood structure
Existing structure	OS base map	Existing trees	
Proposed channel			
Design elements			
Proposed channel			
Quality Project No. :		19 -1001	
Project Title			
Emm Brook, Woosehill Fish Passage Improvements			
Drawing Title			
DESIGN PLAN VIEW			
Designed by		Scale \odot A3 1:1,400	
HM	Date		
Drawn	15/03/2019	British National Grid	
Checked	Date	ORD SURV GB	
AW	15/03/2019		
Approved	Date	Issued	Date
--	--	01	15/03/2019
Drawing Number		1	

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ALIGNMENT - PALEO CHANNEL - LONGSECTION
SCALE: H 1:1000, V 1:200, DATUM: 41.000



Remove silt from existing pond but retain general geometry. Pond is integrated within the design, providing an online feature, enhancing habitat and ecological potential.

Remove culvert structure to ensure channel connectivity.

Remove existing footpath crossing and install new footbridge keeping existing path network.

Remove gabion structure to ensure channel connectivity.

LEGEND

- Profile
- Proposed levels
 - Existing hard levels
 - Existing soft levels (silt)
- Design elements
- Proposed channel

Quality Project No. : 19 -1001

Project Title
Emm Brook, Woosehill Fish Passage Improvements

Drawing Title
DESIGN PROFILE - SECTION 1

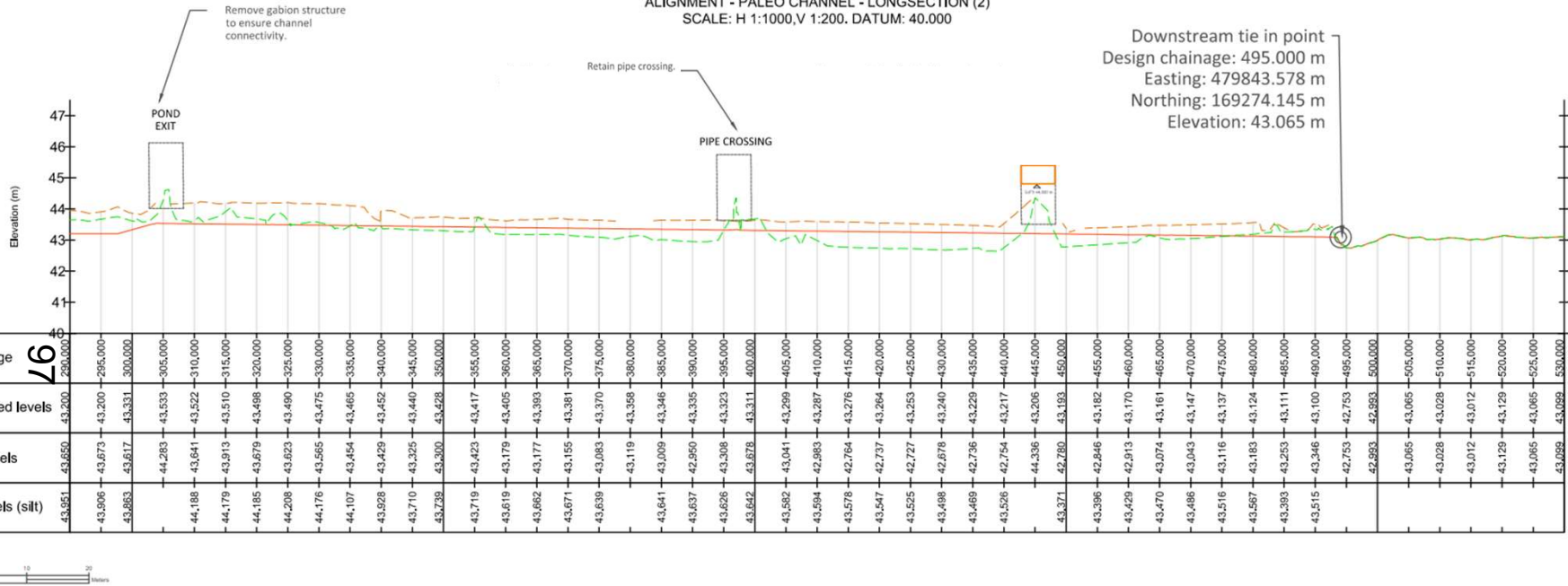
Designed by HM	Scale @ A3
Drawn Jl	Date 15/03/2019
Checked AW	Date 15/03/2019
Approved --	Date --
British National Grid ORD SURV GB	
Issued 01	Date 15/03/2019



Drawing Number
4

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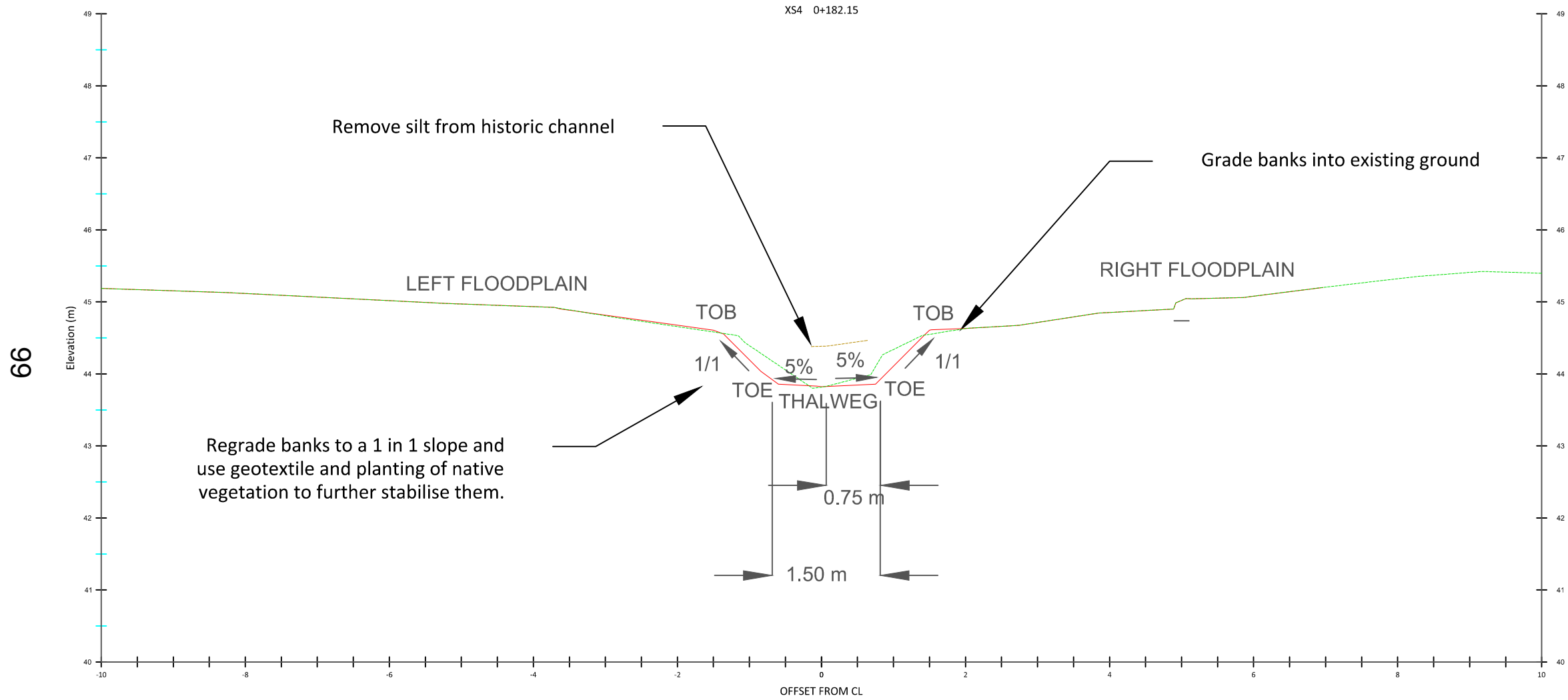
ALIGNMENT - PALEO CHANNEL - LONGSECTION (2)
SCALE: H 1:1000, V 1:200. DATUM: 40.000



LEGEND			
Profile			
---	Proposed levels		
---	Existing hard levels		
---	Existing soft levels (silt)		
---	Structures		
Quality Project No. :		19 -1001	
Project Title			
Emm Brook, Woosehill Fish Passage Improvements			
Drawing Title			
DESIGN PROFILE - SECTION 2			
Designed by		Scale © A3	
HM			
Drawn	Date	British National Grid	
JL	15/03/2019		
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AW	15/03/2019		
Approved	Date	Issued	Date
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Drawing Number			
5			

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PROPOSED CHANNEL TYPICAL SECTION



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION
In addition to the hazards/risk normally associated with the types of work detailed on this drawing, note the following risks and information.
* Please note that risks listed here are not exhaustive.
CONSTRUCTION
* Working in close proximity to deep water environments.
* Disturbing or striking existing utilities and services.
MAINTENANCE/CLEANING
* No unusual hazards/risks
DECOMMISSIONING/DEMOLITION
* No unusual hazards/risks
It is assumed that all works will be carried out by a competent contractor working.

LEGEND
— Existing hard levels
— Existing soft levels (silt)
— Proposed levels

Quality Project No. : 19 -1001

Project Title
Emm Brook, Woosehill Fish Passage Improvements

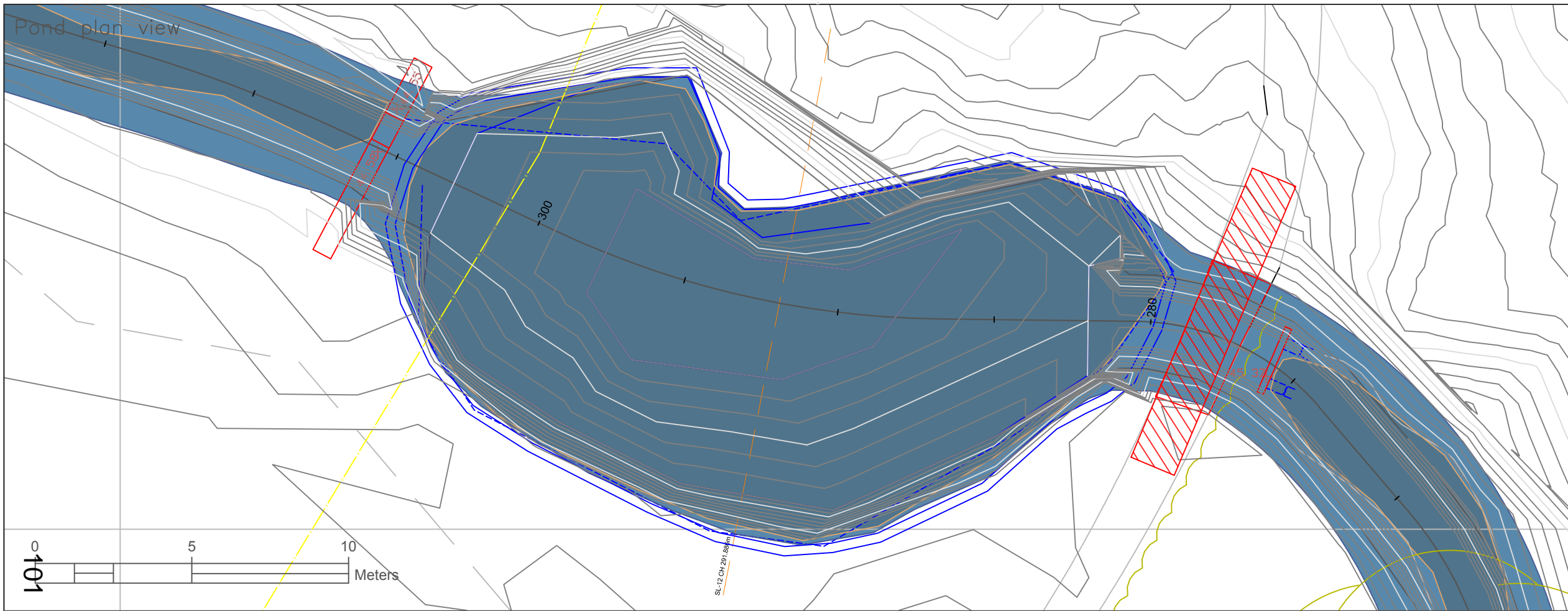
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DESIGN TYPICAL SECTION

Designed by HM	Date	Scale @ A3 1:70
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Checked AW	15/03/2019	
Approved --	Date --	Issued 01
		Date 15/03/2019



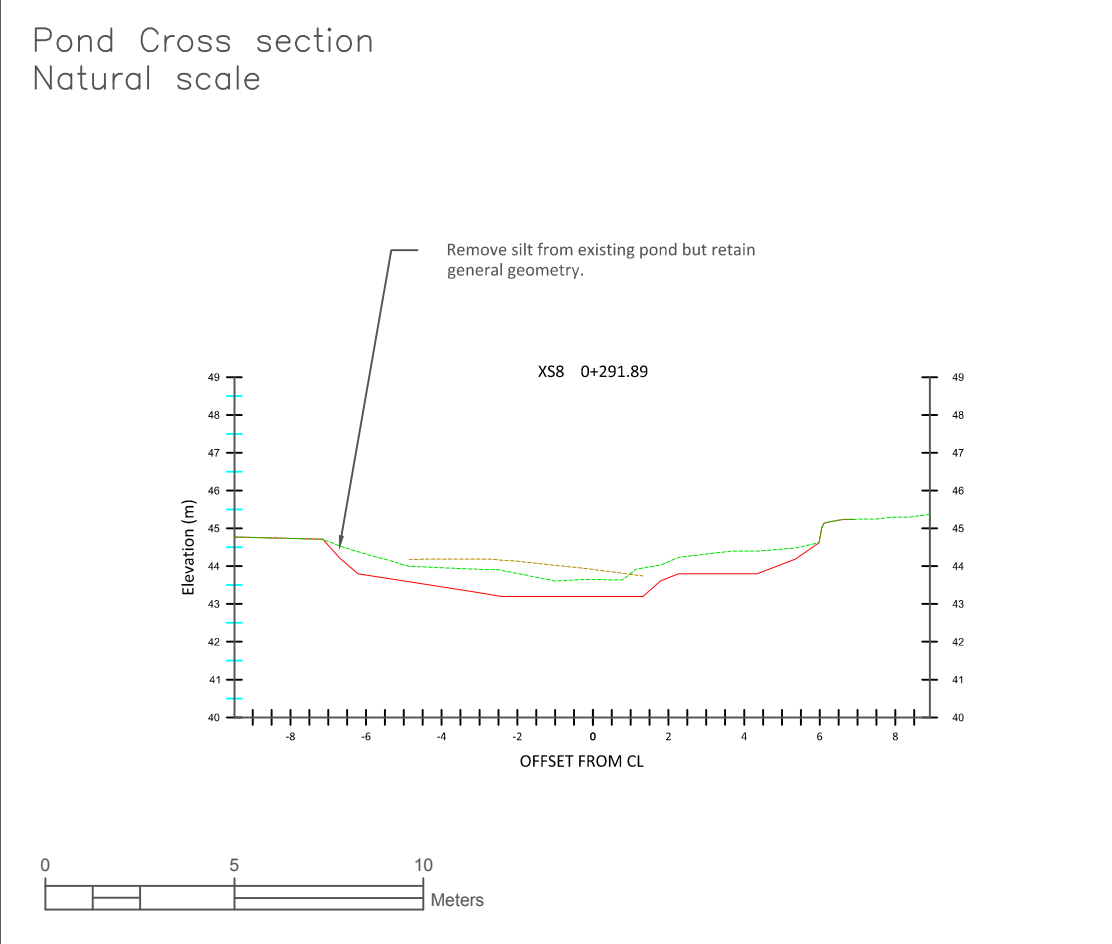
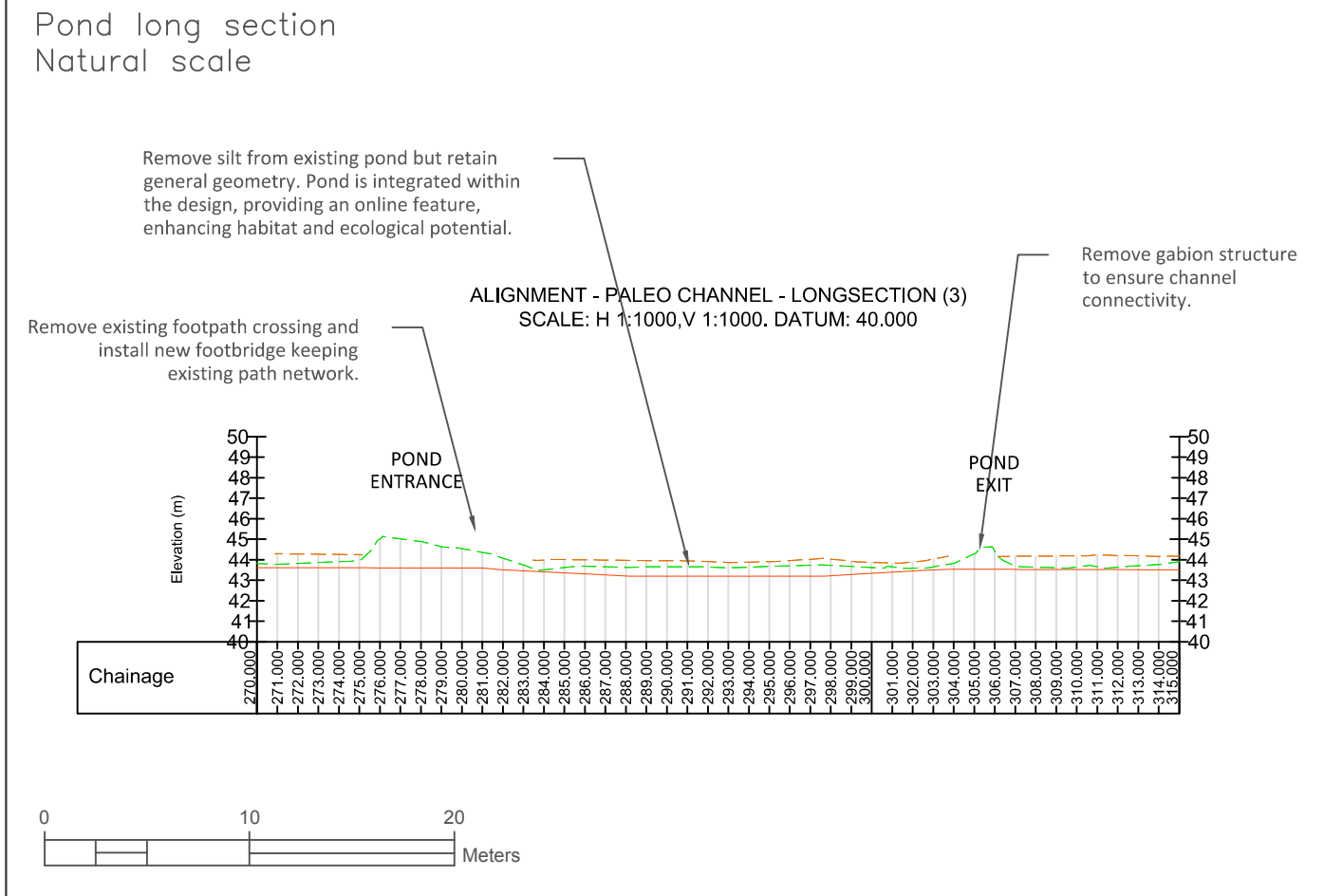
Drawing Number
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SAFETY HEALTH AND ENVIRONMENTAL INFORMATION
In addition to the hazards/risk normally associated with the types of work detailed on this drawing, note the following risks and information.
* Please note that risks listed here are not exhaustive.
CONSTRUCTION
* Working in close proximity to deep water environments.
* Disturbing or striking existing utilities and services.
MAINTENANCE/CLEANING
* No unusual hazards/risks
DECOMMISSIONING/DEMOLITION
* No unusual hazards/risks
It is assumed that all works will be carried out by a competent contractor working.

LEGEND
Profile
— Proposed levels
— Existing hard levels
— Existing soft levels (silt)



Quality Project No. :	19 -1001
Project Title	Emm Brook, Woosehill Fish Passage Improvements
Drawing Title	POND FEATURE DETAIL SECTIONS

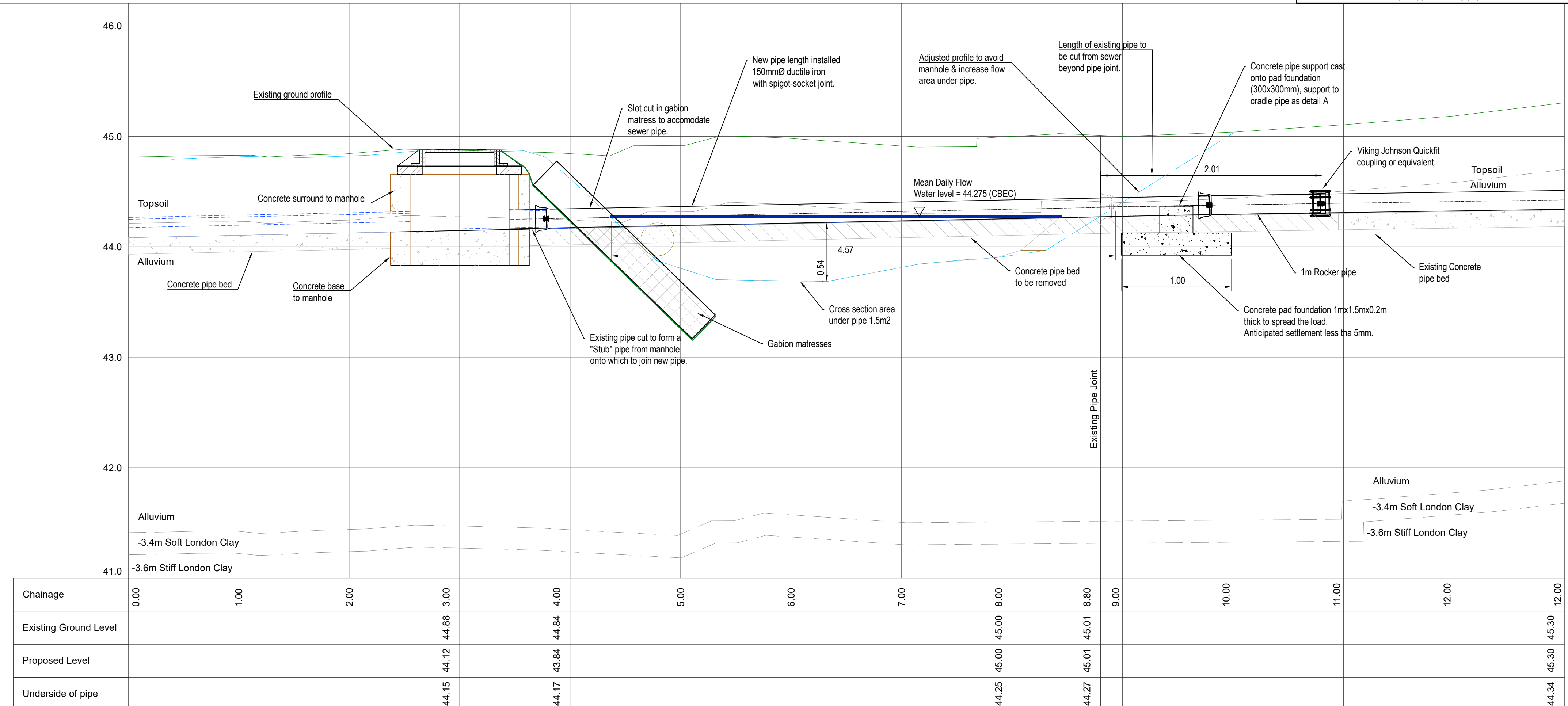
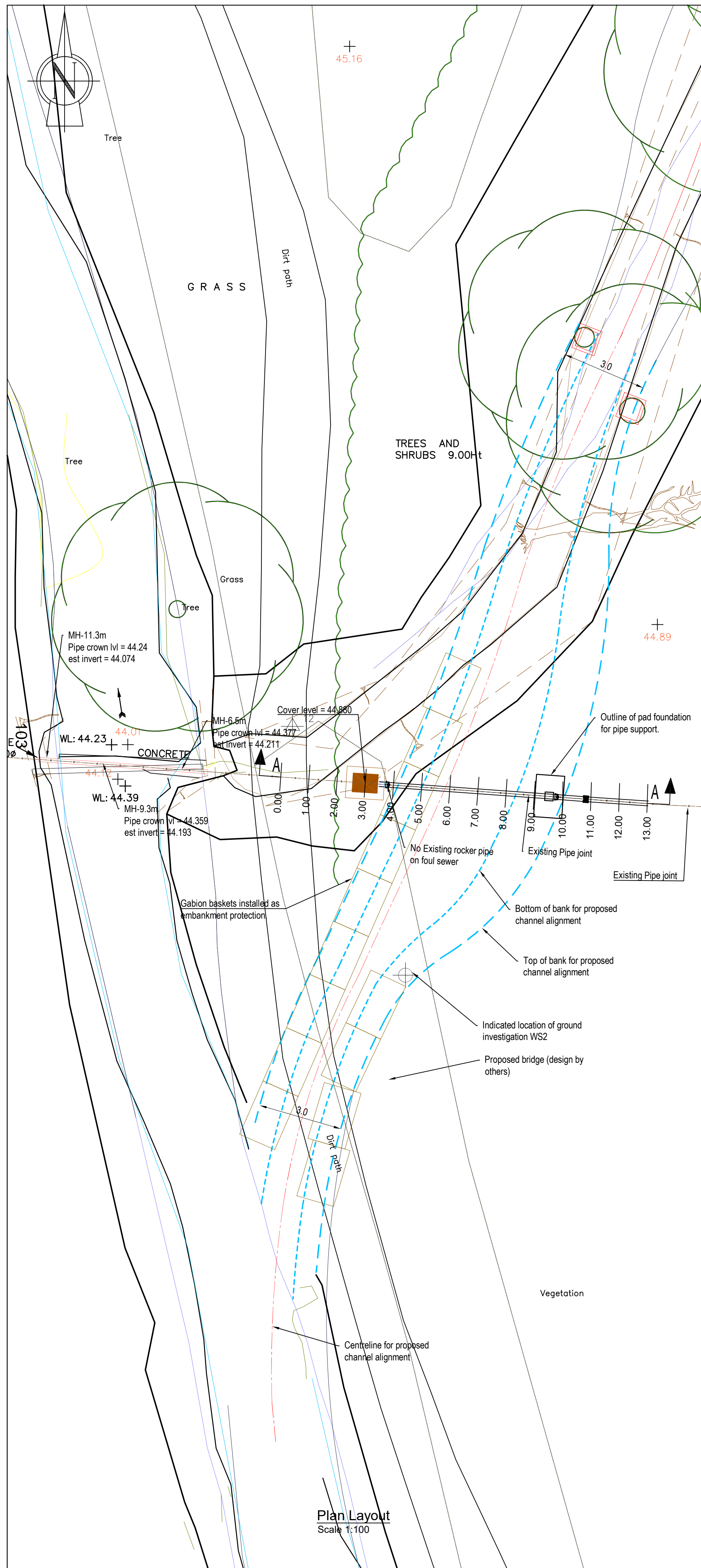
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Drawn	JL	Date	15/03/2019
Checked	AW	Date	15/03/2019
Approved	--	Date	--
		British National Grid	ORD SURV GB
Issued	01	Date	15/03/2019



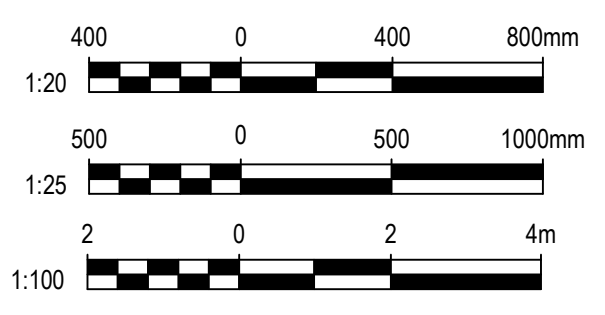
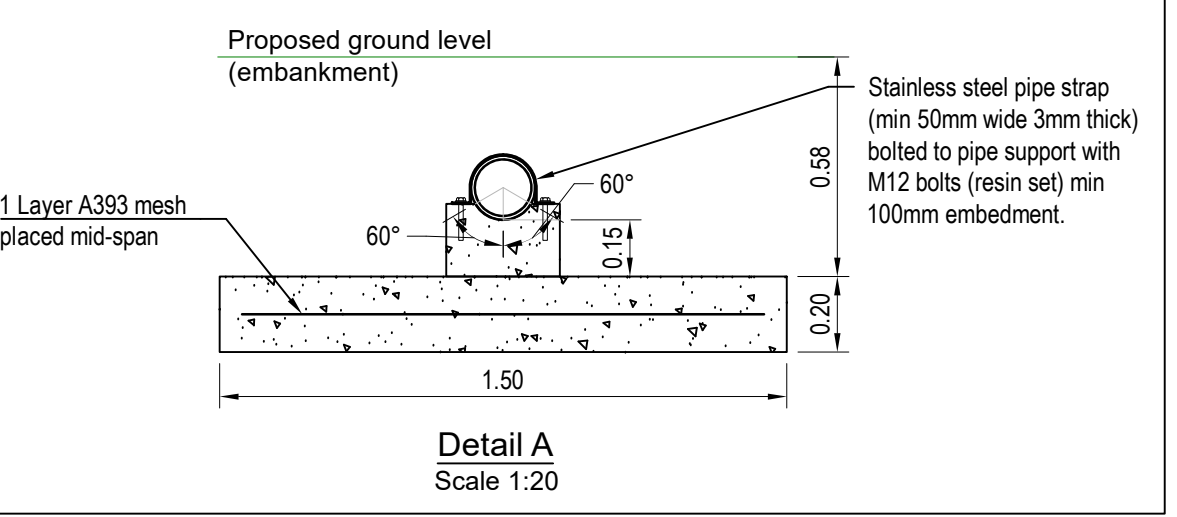
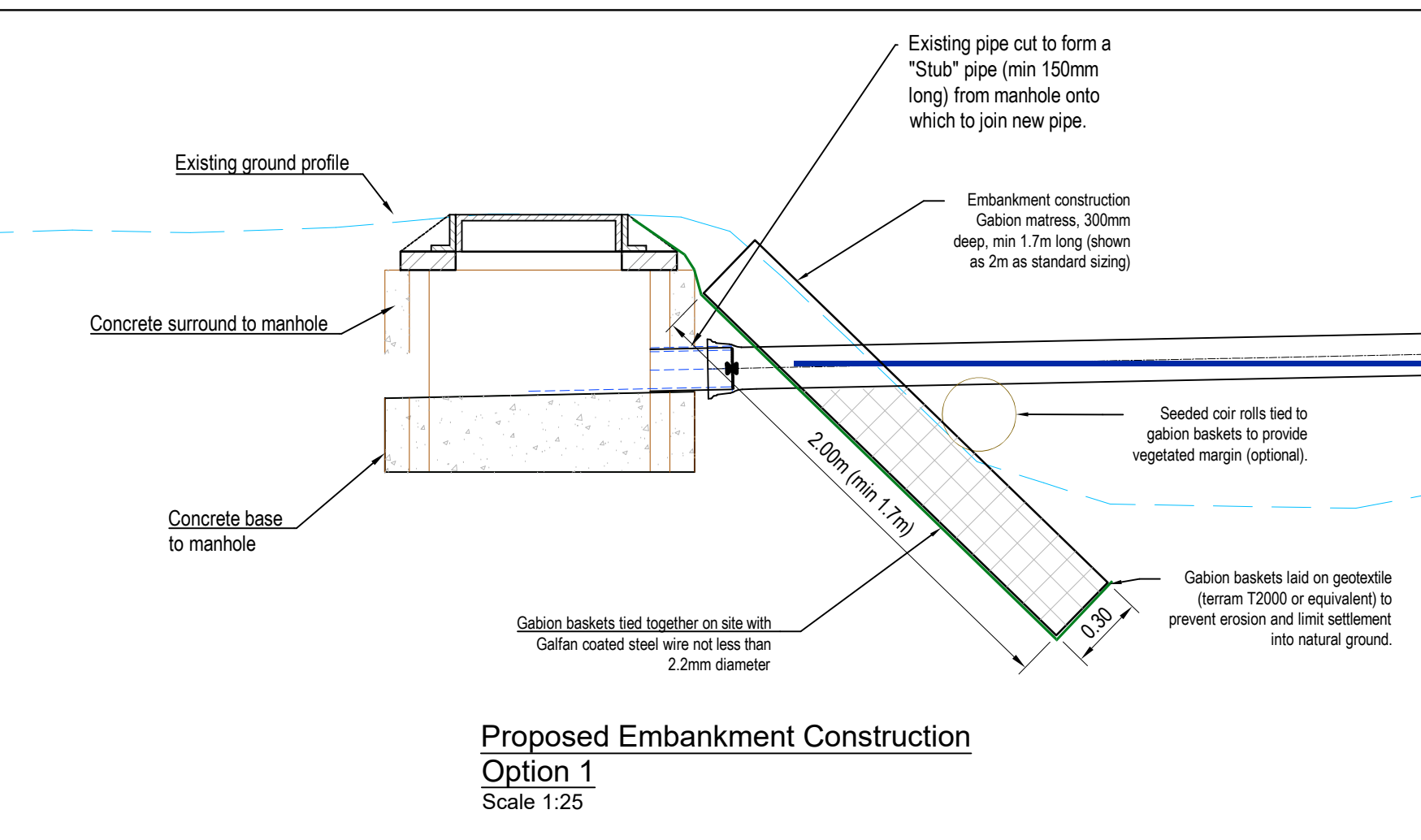
Drawing Number	12
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Section A-A
Proposed Arrangement
Option 1
Scale 1:25



- This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialists drawings together with the specification.
- All dimensions are in m. Levels are shown in m AOD.
- Design of the proposed channel has been undertaken by CBECC. The details shown on these drawings are inferred from their designs, but should not be relied upon for construction purposes.
- Design of bridges has been undertaken by another consultant. The details shown on this drawings are inferred from their designs, but should not be relied upon for construction purposes.
- Ground information at this location has been based upon the investigations carried out by RSK in their report reference 1921661 R01(01) dated 29.06.2021, and specifically the window sampling hole WS2.
- The proposed arrangements contained within these drawings are for discussion purposes only and should not be used for construction.
- The design has been based upon the assumption that the existing manhole has settled to its full potential (has been in place for decades) and that the pipe runs are supported on concrete ground beams to reduce their relative settlement.
- The gabion baskets shall have hexagonal woven mesh with a maximum size of 8 cm x 8 cm, formed of steel wire min diameter 3mm, treated with Galvan or equivalent protection (to EN 10244.2).
- The gabion baskets shall be filled with a hard and durable angular stone 100-200mm in size (grading 6G) placed and lightly compacted to minimise the amount of voids present.
- Concrete for the pad foundation and pipe support shall be C35 mix or equivalent approved.

Safety Health and Environmental information	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:	
Construction	
S.1 - Access through public areas - conflict with members of public	
S.2 - Works within watercourse - flooding of works	
S.3 - High Ground water	
S.4 - Interface with foul sewer	
S.5 - Falls from height	
S.6 - Working next to watercourse - drowning & Weils disease	
Maintenance/Cleaning/Operation	
S.1 - Access through public areas - conflict with members of public	
S.4 - Interface with foul sewer - Weils disease	
S.6 - Working next to watercourse - drowning & Weils disease	
Decommissioning/Demolition	
S.1 - Access through public areas - conflict with members of public	
S.2 - Works within watercourse - flooding of works	
S.3 - High Ground water	
S.4 - Interface with foul sewer	
S.6 - Working next to watercourse - drowning & Weils disease	

B	GABIONS CHANGED TO SINGLE BASKET, NOTE ADDED TO CLARIFY CUT-OUT FOR SEWER	27-04-22
A	1ST ISSUE	25-04-22
REV	REVISION DETAILS	DATE

Ghyston Engineering Ltd
5 FURZE ROAD, FISHPONDS, BRISTOL, BS16 4HR
TEL : 0117 325 0745
email : Alex@GhystonEngineering.co.uk

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PROJECT TITLE
EMM BROOK
PIPE BRIDGE

DRAWING TITLE
PROPOSED ARRANGEMENT
OPTION 1
STANDARD PIPE LENGTH

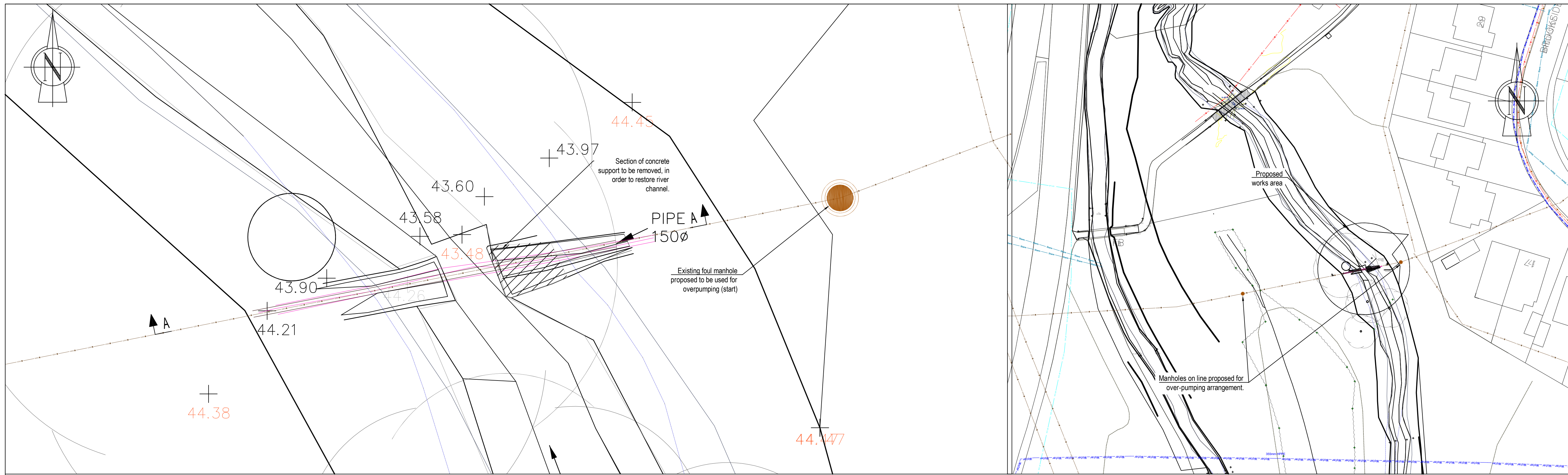
CLIENT
SOUTH EAST RIVERS TRUST

STATUS
CONSTRUCTION

SCALE	DRAWN	CHECKED	APPROVED
AS SHOWN	AM HUGHES	AMT	AMH

DRG SIZE	DRAWING NUMBER	REV
A1	GHY-SERT-04-DWG-11	B

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SCALING FROM THIS DRAWING OR OBTAINING DIMENSIONS ELECTRONICALLY MAY NOT PROVIDE ACCURATE INFORMATION AND SHOULD BE AVOIDED. WORK ONLY FROM FIGURED DIMENSIONS.

NOTES:

- This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialists drawings together with the specification.

Legend:

- Existing Potable Water Main
- Storm / Highways Drainage
- Thames Water Foul Sewer
- Underground Electric Cables (LV)
- Overhead Electric Cables (LV)
- Underground HV Electric Cables
- Gas main
- BT overhead cables
- BT underground cables

Safety Health and Environmental Information

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

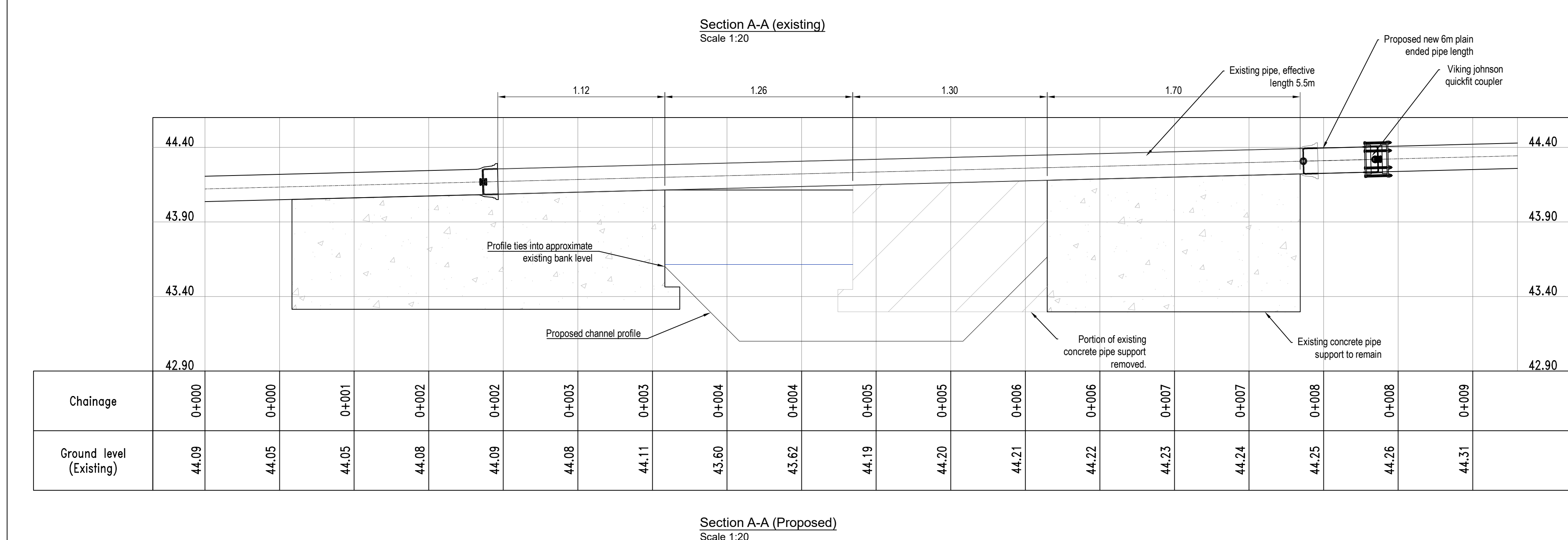
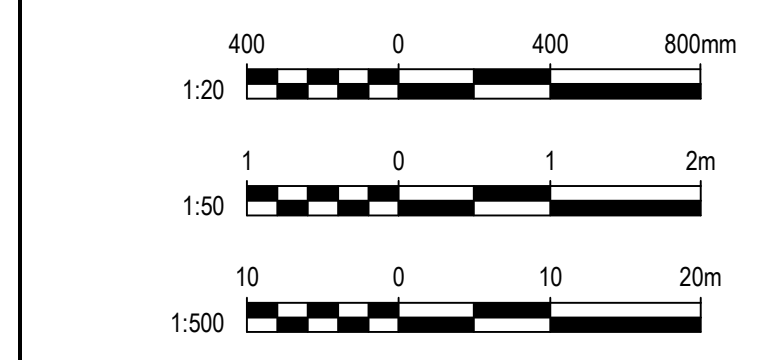
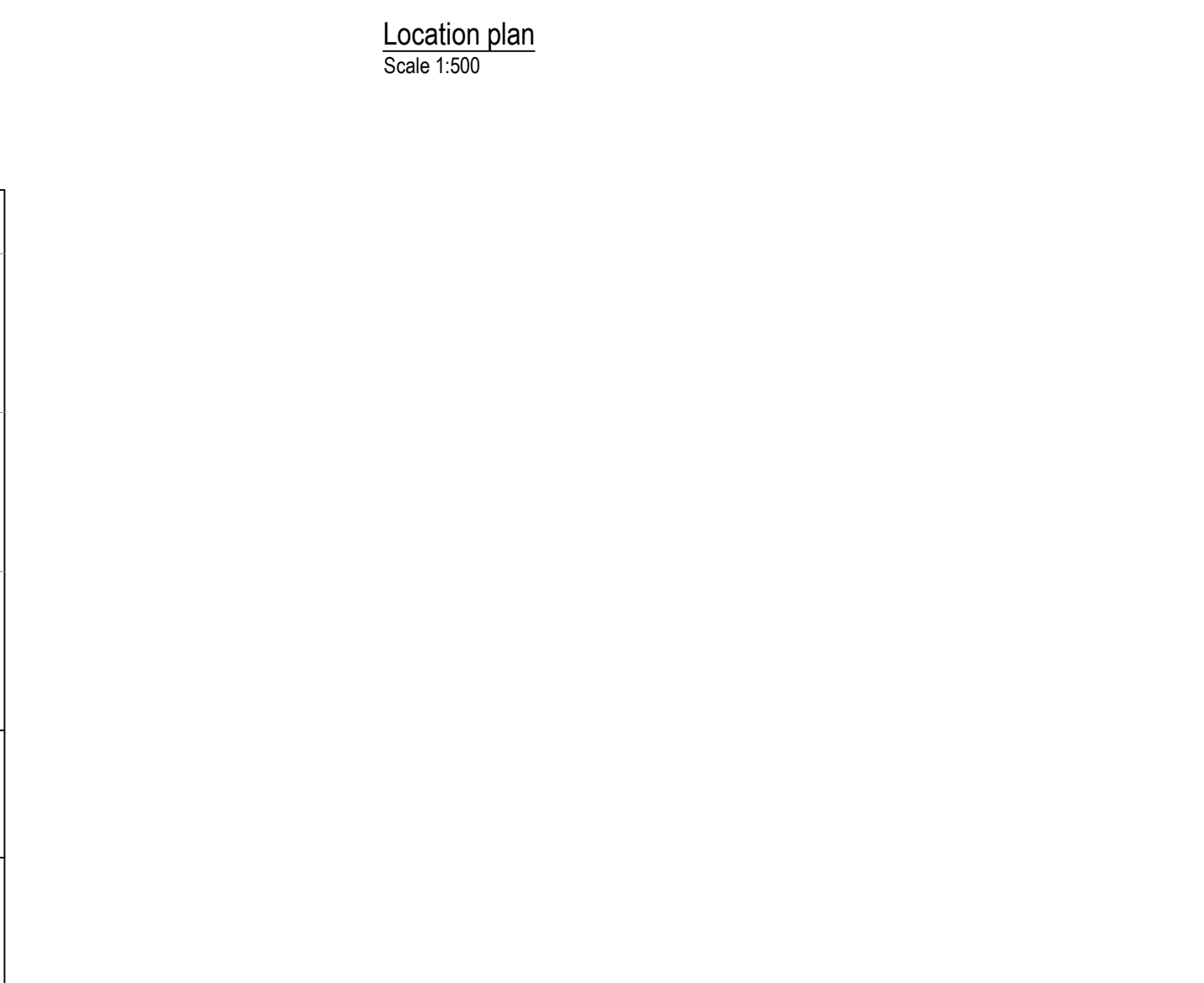
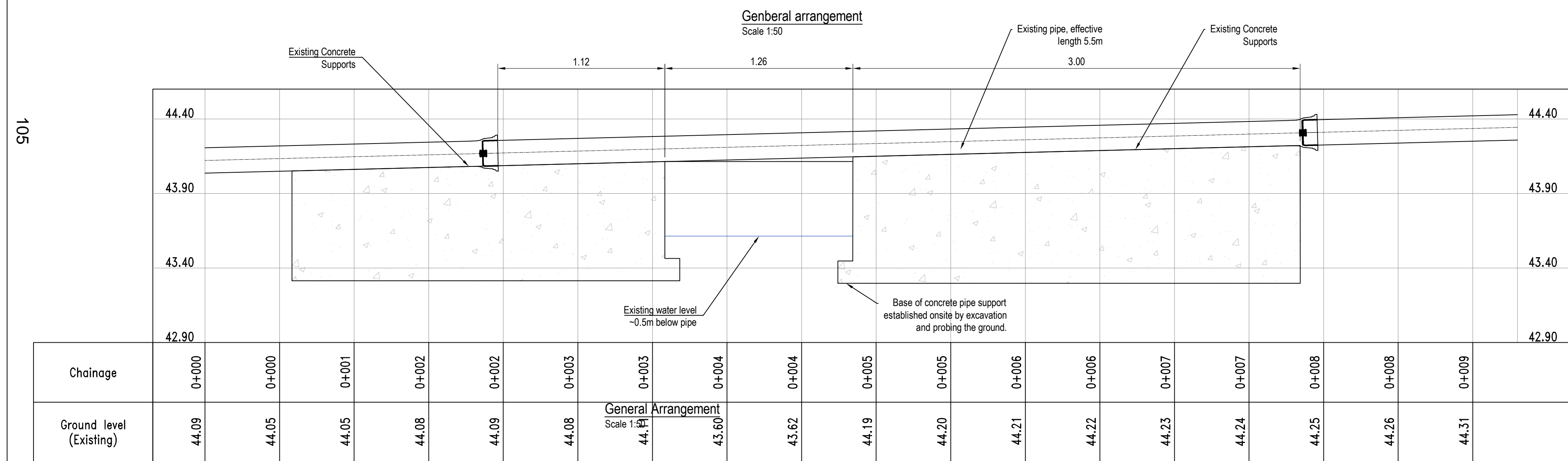
Construction:

- WORKING WITH WATER - RISK OF DROWNING
- CONFINED SPACES (MANHOLES)
- INTERFACE WITH SEWERS - LEPTOSPIROSIS / WEILS DISEASE
- DUST - (CUTTING CONCRETE)

Maintenance/Cleaning/Operation:

- CONFINED SPACES
- INTERFACE WITH SEWERS - LEPTOSPIROSIS / WEILS DISEASE

Decommissioning/Demolition:



- Anticipated construction sequence;**
- Setup overpumping between manholes,
 - Cut out existing pipe section and remove pipe
 - Cut out concrete support for extent shown
 - Install new plain ended pipe & VJ coupler to re-instate sewer pipe
 - Remove over-pumping arrangement and return to service.

A	1ST ISSUE	30.05.22
REV	REVISION DETAILS	DATE

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PROJECT TITLE
EMM BROOK RIVER RESTORATION

DRAWING TITLE
SECOND SEWER CROSSING LAYOUT AND SECTIONS

CLIENT
SOUTH EAST RIVERS TRUST

STATUS
INFORMATION

SCALE	DRAWN	CHECKED	APPROVED
AS SHOWN	AT A1	#A.M.H	11
DRG SIZE	DRAWING NUMBER	REV	
A1	GHY-SERT-04-DWG-25	A	

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Date	18 th May 2022	Issued version	1
Author	Eric Gillies, cbec eco-engineering UK Ltd		
Technical & Comm. Reviewer	Martin Kernan, cbec eco-engineering UK Ltd		
To	SERT		
Project	UK 20-1057 Emm Brook		
Subject	Model re-run for updated 100 year return period flows.		

1. INTRODUCTION

This report describes additional flood modelling of the Emm Brook existing condition and the Emm Brook re-alignment.

The hydrology for the project was updated in 2022 to account for an increased URBEXT parameter, and this increased the 100 year return interval flood peak estimate from the previously modelled 10.83 m³/s to 15.10 m³/s. Updated model runs were undertaken for unsteady (ReFH derived) hydrographs for the following flows in Table 1 and hydrograph (scaled to each flow peak) in Figure 1.

Table 1 Peak flows used in the model.

Flow description	Discharge peak [m ³ /s]
Original model 100 year RP peak (2020) ¹	10.83
Updated 100 year RP peak (2022)	15.10
Updated 100 year RP peak + 14% climate uplift	17.21
Updated 100 year RP peak + 35% climate uplift	20.38

¹ For reference only; this flow was modelled as part of the original 2020 study.

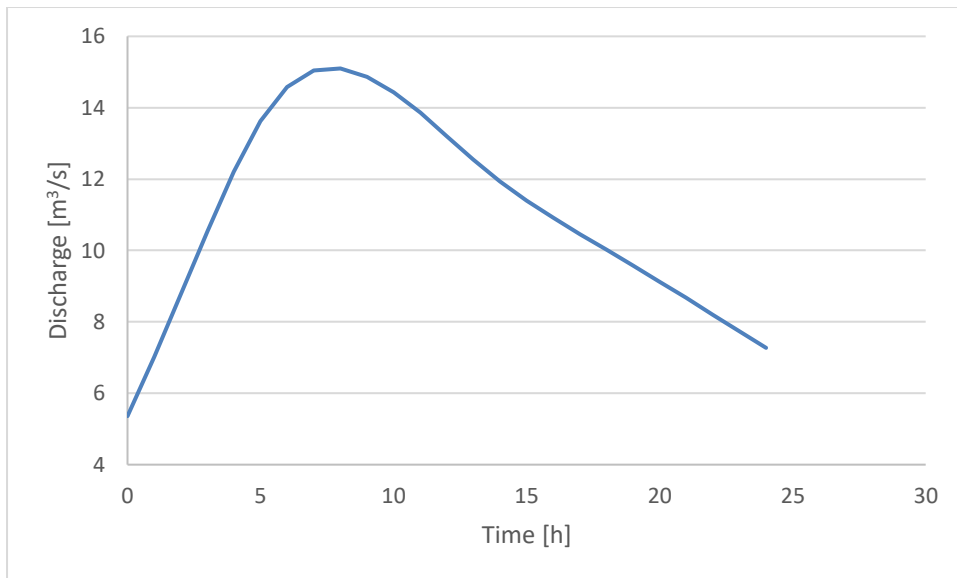


Figure 1 Unsteady hydrograph used for modelling. Note: this hydrograph was derived using ReFH v2.3 in the absence of relevant gauge data.

The hydraulic model for the project has previously been approved via the EA FMAT process, and is fully described in the report issued to the EA: U20-1057 Emm Brook Model Update Report (*cbec*, 23/12/20).

The model contains all bridges (two existing channel bridges and three design channel bridges) as pressure/overtop weir units and is fully 2D elsewhere. As part of the model checking/QC process, all bridges and overtop units were checked at the higher flows to determine whether the increased flows caused a change to soffit interaction or overtopping. Also checked were model “glass-walling”, and any increased inundation of property.

- There were no substantive changes to soffit nor deck overtoppings as a result of the higher flows, other than a slight increase in levels at each structure (i.e. if a structure overtopped/water interacted with soffit at the updated flow estimate, it already overtopped/water interacted with the soffit at the original flow estimate).
- The model did not glass-wall anywhere even at the 100 year RP plus 35% climate uplift.
- There were no interactions with any property at any of the modelled flows.
- No substantive changes to the model were required to accommodate the increased flows, other than an extrapolation of the downstream boundary rating curve to accommodate the highest flow.

2. UPDATED FLOOD MAPS

Maximum water depth during the unsteady flood hydrograph is mapped in Figure 2, Figure 3 and Figure 4 for the updated 100 year, 100 year plus 14% (central estimate 2080) and 100 year plus 35% return period flows for the Emm Brook existing condition and design condition. Difference maps of Design water level minus existing water level peak are also included in Figure 5, Figure 6 and Figure 7. The results are consistent with expectations and previous modelling:

- There are no significant changes to inundation between existing and design
- The design slightly lowers levels upstream, by increasing conveyance through the design channel on the right floodplain.
- Water levels at the existing bridges are very slightly reduced (1-3 cm) and slightly increased by 4 cm on the most downstream design bridge, but this afflux is limited to 4 m upstream of the structure.

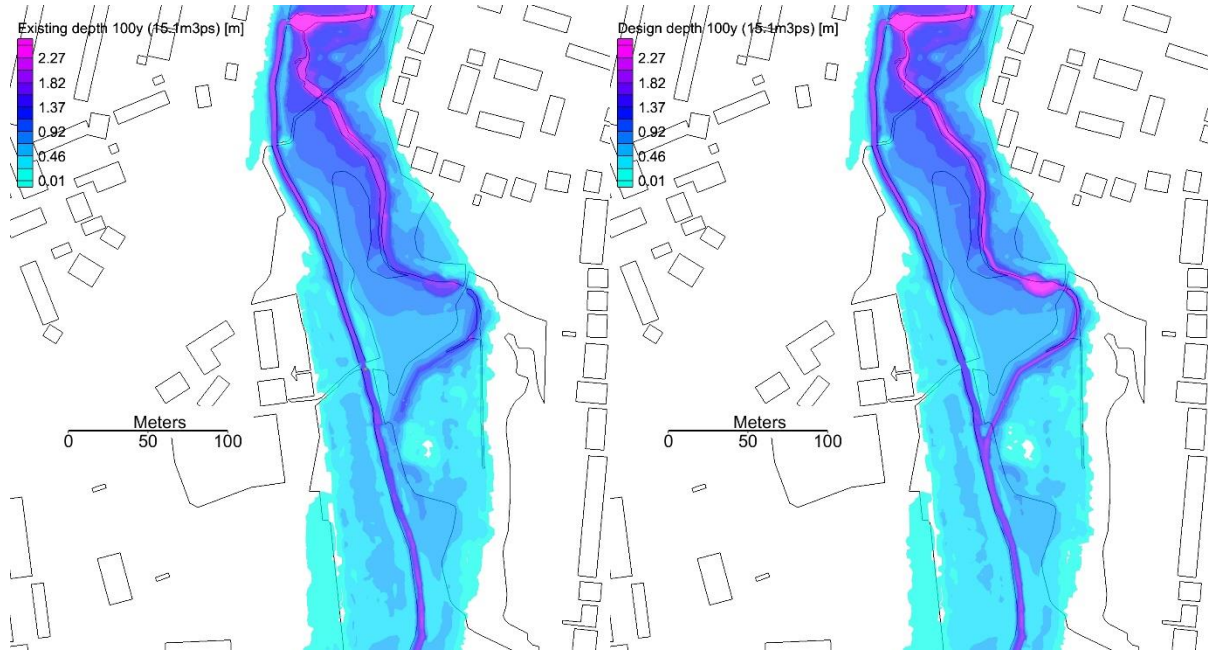


Figure 2 100 year return period (15.10 m³/s) peak inundation for existing (left) and design (right) condition.

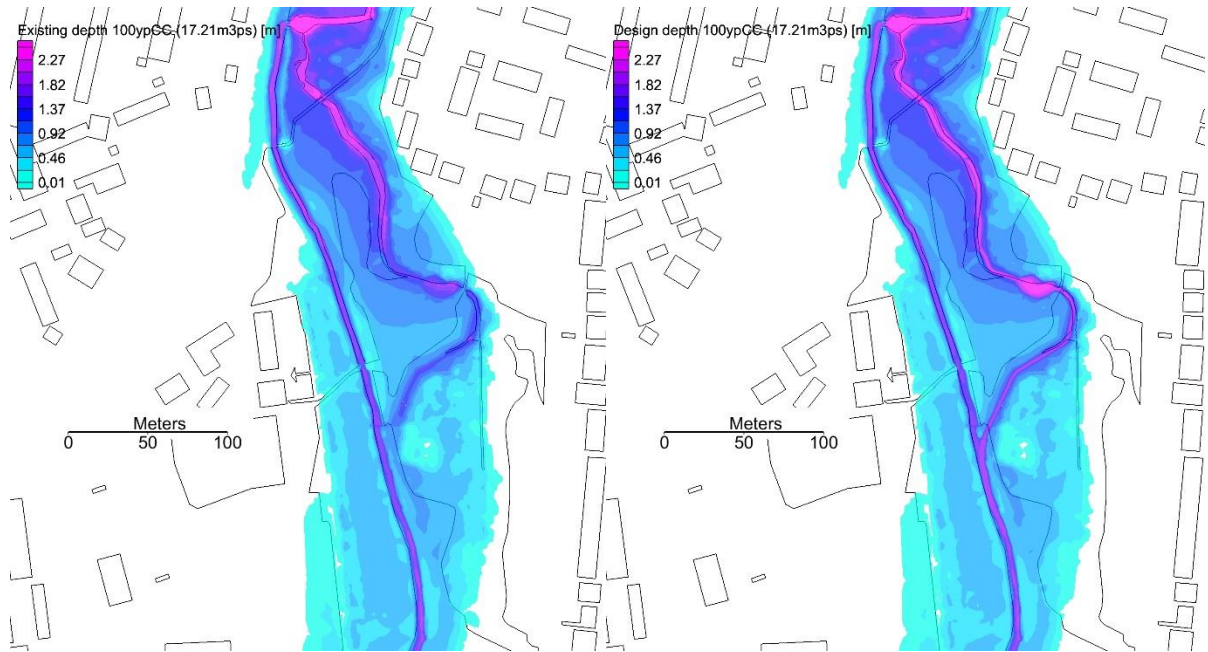


Figure 3 100 year return period plus 14% central 2080 climate change estimate (17.21 m³/s) peak inundation for existing (left) and design (right) condition.

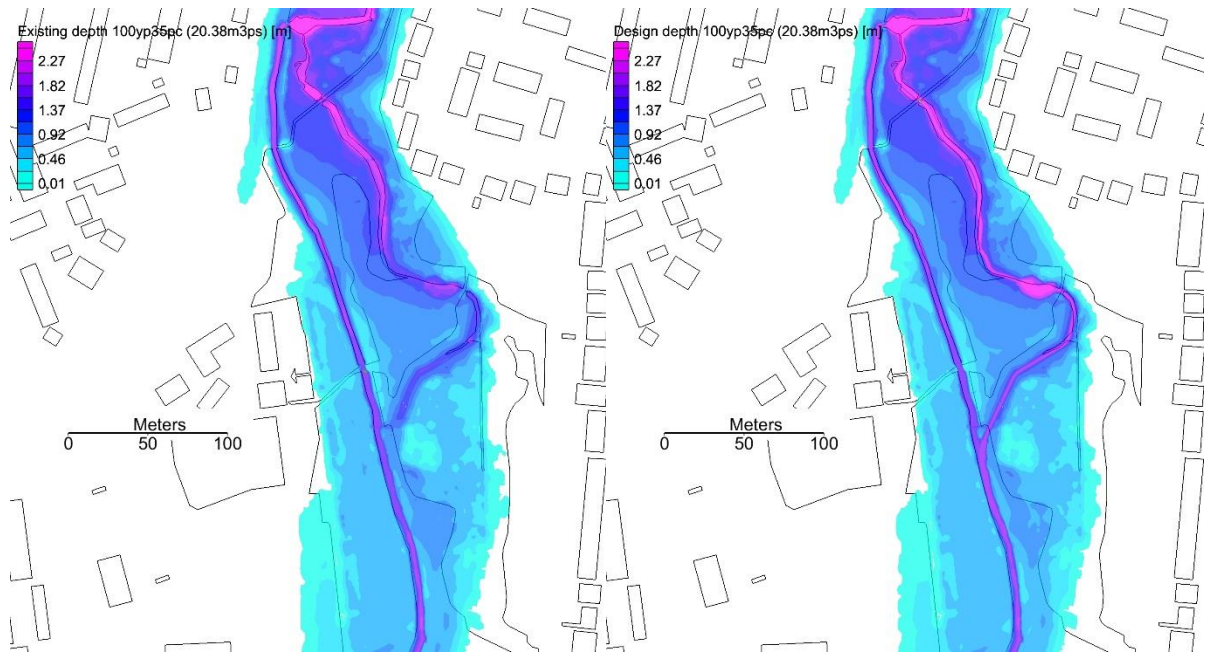


Figure 4 100 year return period plus 35% (20.38 m³/s) peak inundation for existing (left) and design (right) condition.

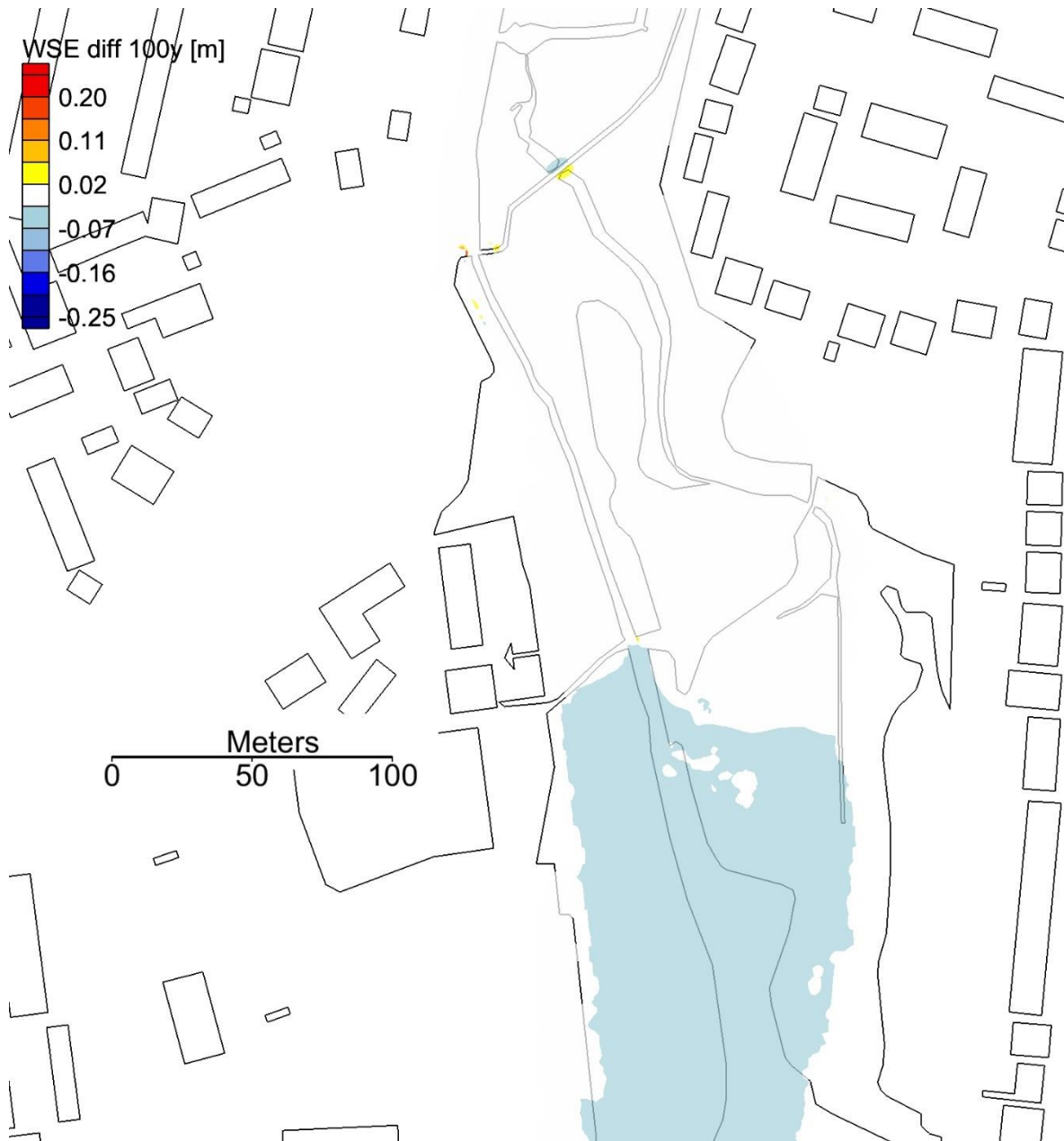


Figure 5 Peak water level difference map (design - existing) for the 100 year return period (15.10 m³/s) flood.

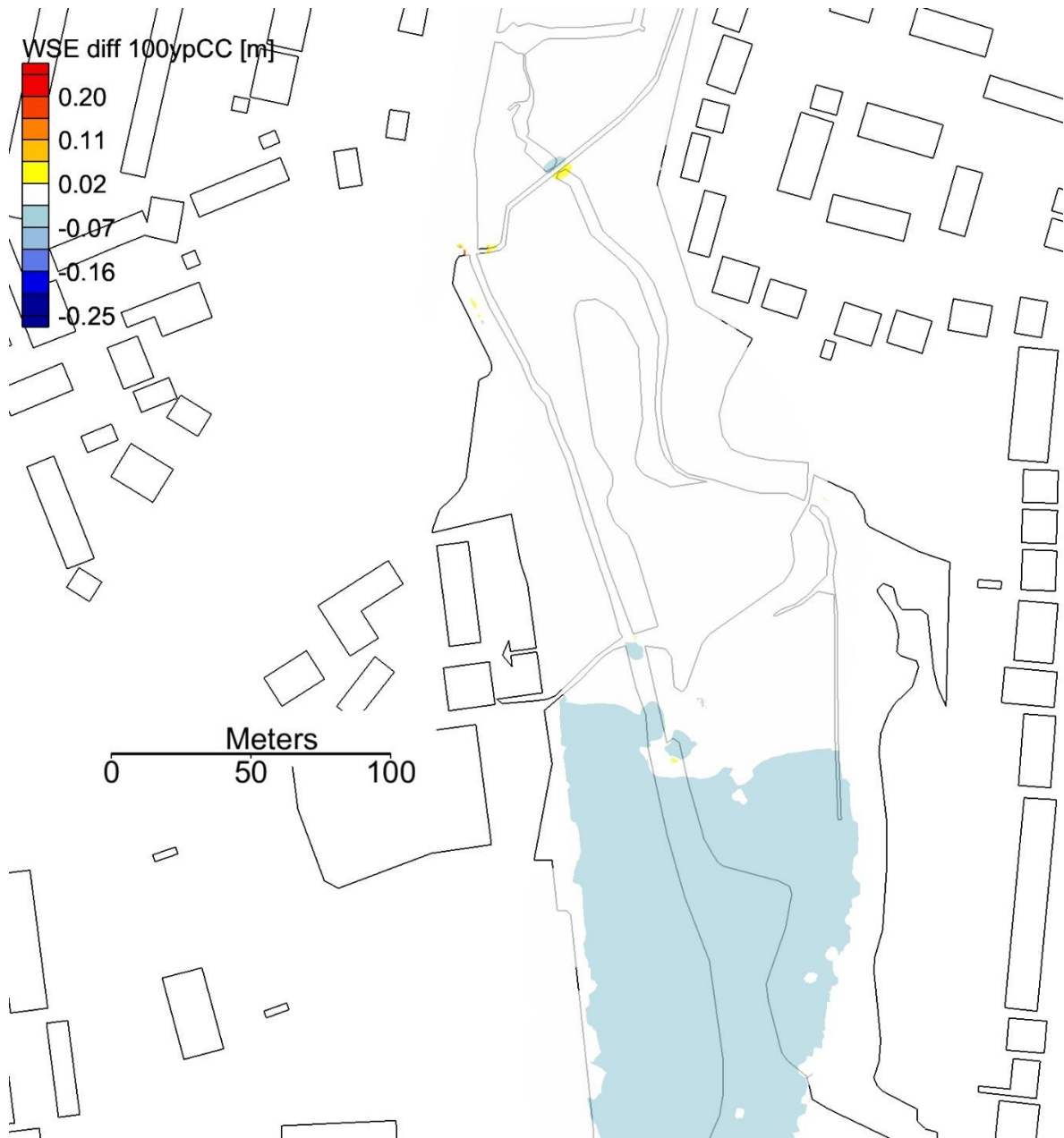


Figure 6 Peak water level difference map (design - existing) for the 100 year return period plus 14% central 2080 climate change estimate (17.21 m³/s) flood.

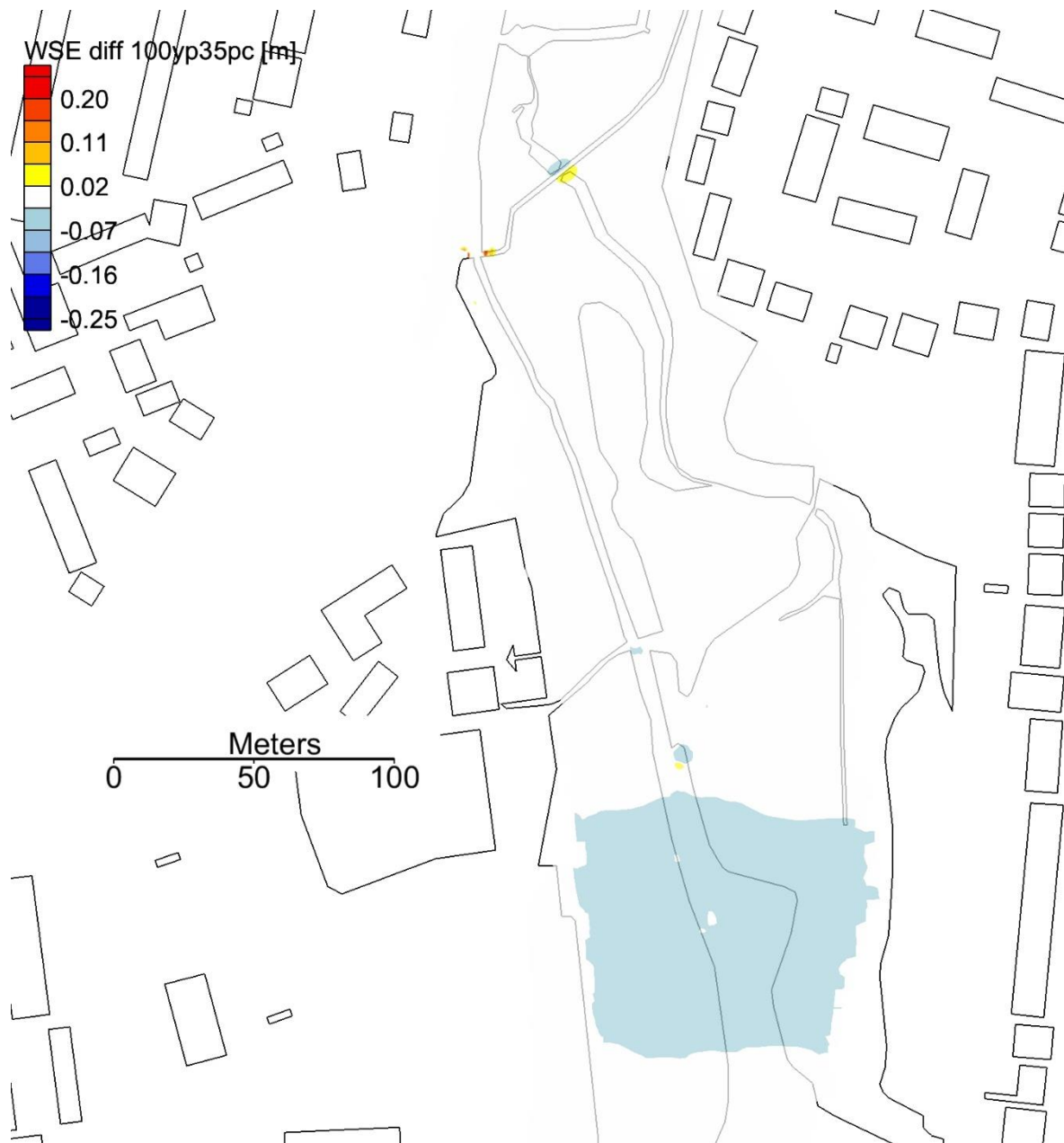


Figure 7 Peak water level difference map (design - existing) for the 100 year return period plus 35% (20.38 m³/s) flood.

3. PASS-FORWARD FLOW

Downstream pass-forward flow was calculated for each modelled flow and is tabulated in Table 2. There is no increase in pass-forward flow as a result of the design. Figure 8 shows the pass-forward flow hydrograph for the 100 year plus 14% climate uplift flood. At no point in this hydrograph are design pass-forward flows higher than those for the existing condition.

Table 2 Pass-forward flow peaks.

Return period & flow uplift%	Existing peak [m3/s]	Design peak [m3/s]
100	15.08	15.07
100+14% CC	17.20	17.16
100+35%	20.36	20.33

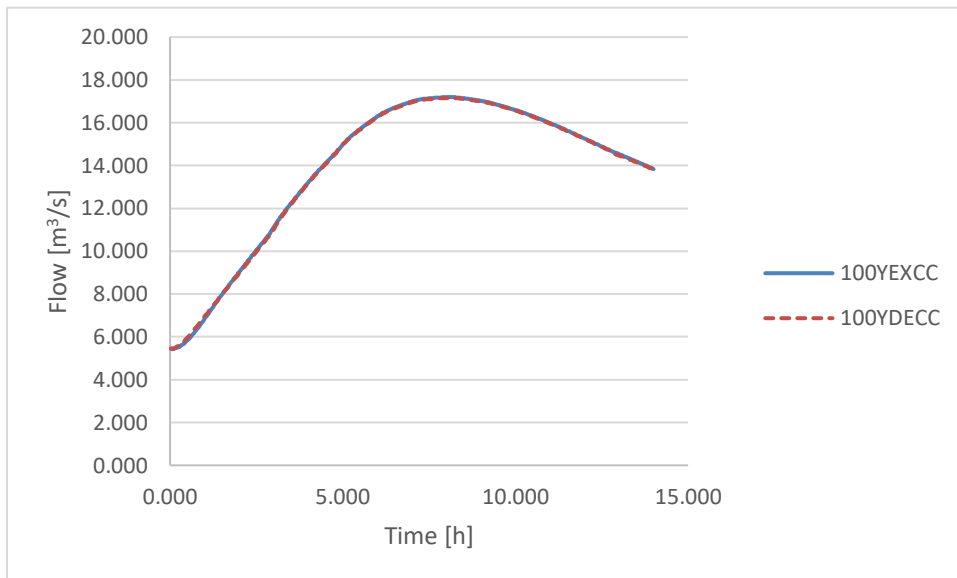


Figure 8 Pass-forward flow hydrograph for the 100 year return period flood plus 14% central 2080 estimate of climate uplift.

Date	18 th May 2022	Issued version	1
Author	Gordon Falconer, cbec eco-engineering UK Ltd		
Technical & Comm. Reviewer	Martin Kernan, cbec eco-engineering UK Ltd		
To	Nick Hale, South East Rivers Trust		
Project	UK20-1057 Emm Brook Remodelling		
Subject	Emm Brook: Flood Risk Assessment (Updated hydrology and remodelling)		

1. INTRODUCTION

1.1 PURPOSE OF STUDY

cbec was contracted to produce detailed designs to improve fish passage on a reach of the Emm Brook, near Woose Hill, Wokingham (see Figure 1).

As part of this study, a flood risk assessment (FRA) has been completed to assess any flood risk concerns raised by the proposed scheme, in accordance with the National Planning Policy Framework (NPPF), Flood Risk and Coastal Change. This builds on the previous FRA provided to SERT. This updated FRA was produced following a revision of the hydrology for the project in 2022 to account for an increased URBEXT parameter, and this increased the 100 year return interval flood peak estimate from the previously modelled 10.83 m³/s to 15.10 m³/s. Therefore, updated model runs were undertaken (see Technical Note; 20_1057_Emm_Brook_remodelling_18_05_22_cbec.pdf) and the original FRA has been updated to account for these.

1.2 SCOPE OF STUDY

The assessment is a comprehensive risk-based assessment of potential flooding from all possible sources, including fluvial flooding from adjacent watercourses, groundwater and surface water runoff. The assessment also identifies and examines the residual flood risk to the site and any neighbouring properties. The aim of this report is to consider flood risk and satisfy requirements under NPPF.

Data and information have been obtained from the following sources:

- Environment Agency (EA);
- Wokingham Borough Council;
- WBC Local Flood Risk Management Strategy, 2015;
- Thames River Basin Management Plan (RBMP), 2015; and
- Hydraulic modelling results.

2. BACKGROUND INFORMATION

2.1 RESTORATION SITE

Emm Brook is a tributary of the River Lodden, located within the wider River Thames catchment. The restoration reach is located within Riverside Park, Woosehill, extending from SU 79910 68889 (upstream) to SU 79824 69269 (downstream), as shown in Figure 1.

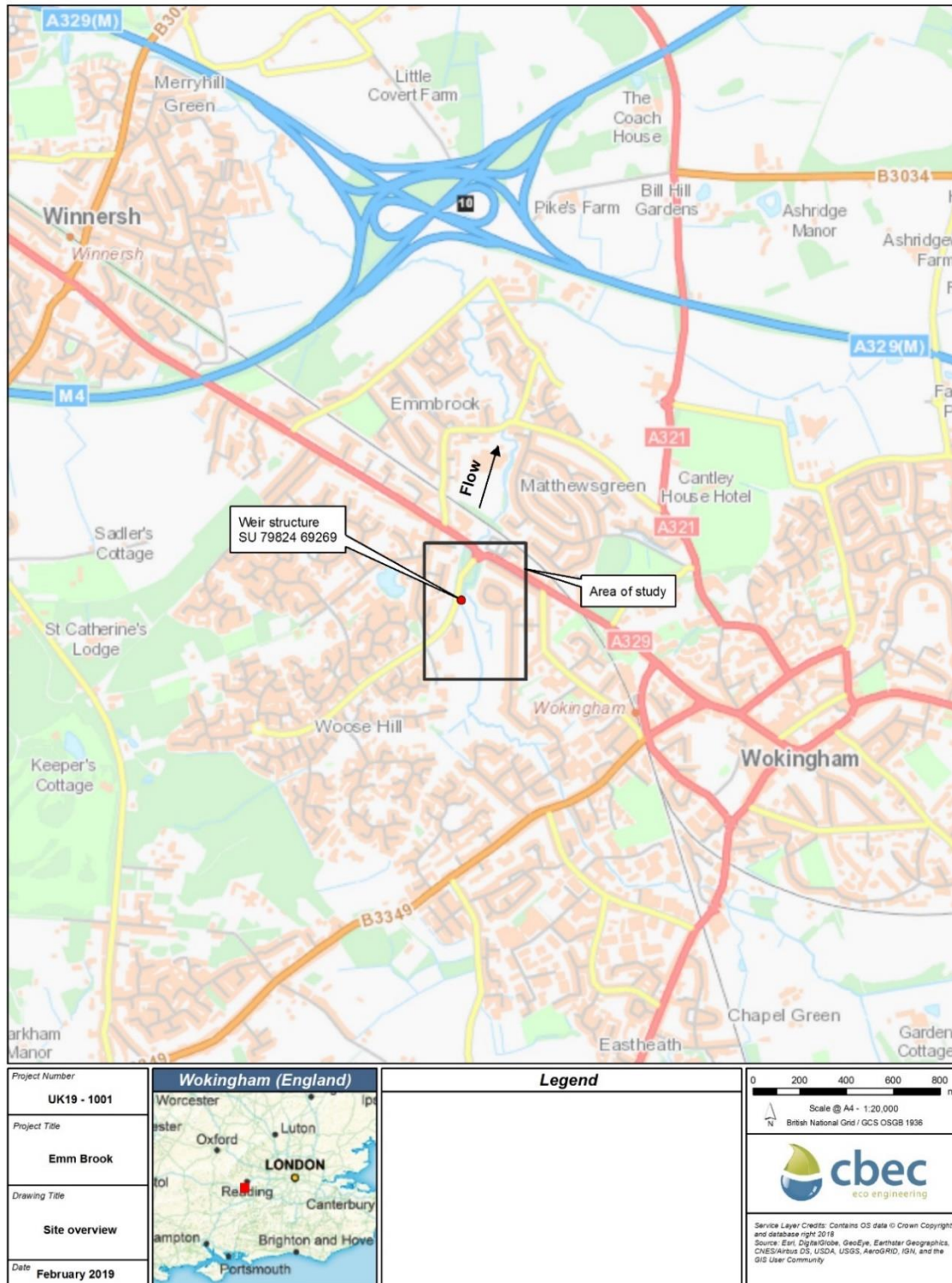


Figure 1: Restoration site location

2.2 SCHEME PROPOSALS

The proposed restoration works consist of a combination of the following measures:

- Realign and re-meander the channel onto the river right floodplain (to re-establish an historic channel located to the east of the current course of the Emm Brook, Figure 2);
- Construction of three footbridges to facilitate access across the Brook, to both the east and west sides of river side park. The upstream bridge will also include a flow control structure.

These channel realignment works aim to encourage more natural physical process within the channel and improve fish passage throughout the site, by bypassing a weir structure at the downstream end of the Park. A more detailed breakdown of the proposed restoration design is available in the Section 4 of design report (19-1001_Emm Brook Final Design Report_cbec_01.07.19).

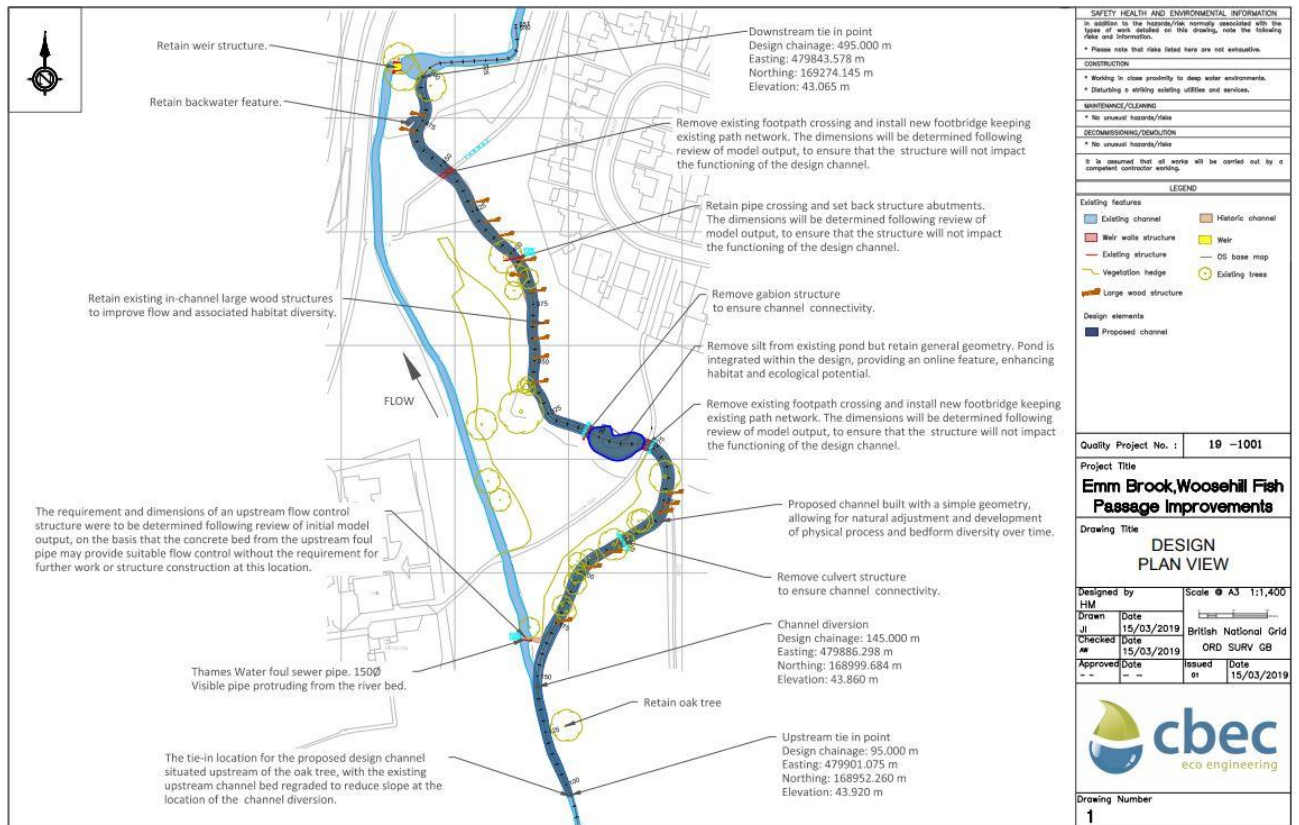


Figure 2: Proposed re-meandered channel location.

3. STATUTORY CONSULTATION

The Environment Agency and Wokingham Borough Council were initially consulted in March 2019, regarding the restoration of the Emm Brook. Since then, the hydraulic modelling has been updated, therefore a second consultation was undertaken in January 2021 to ensure that any recent flood events and proposed developments are considered in relation to the proposed works.

3.1 ENVIRONMENT AGENCY

The Environment Agency (EA), Thames area, was approached regarding any known local flood risk or historic flooding records in the area.

March 2019 - The EA provided links to their flood models for the greater area. As these models are created using LiDAR, they mimic the results shown in the EA flood model shown in Figure 3.

March 2021 – At the time of consultation (08.03.21), the EA were not aware of any other schemes, proposed for the restoration site or surrounding area, that may impact this assessment. The Agency's historic records of the Emm Brook identified that a fluvial flood event occurred in 2007. Further details of this most recent flood event were provided by WBC Flood Risk department (Section 3.2, February 2021).

3.2 WOKINGHAM BOROUGH COUNCIL

Wokingham Borough Council (WBC) were approached regarding any known local flood risk or historic flooding records in the area.

March 2019 - At the time of writing the previous version of this FRA there had been no response received from WBC.

January 2021 – Following a second consultation, in 2021, WBC confirmed that they do not hold any records of flooding at the restoration area, within their historic flooding archive for the Emm Brook. At the time of consultation (18.01.21), the Council stated that the restoration works at this site will not be impacted by any other proposals/ works that they are aware of within the catchment.

February 2021 – WBC Flood Risk department were contacted for further information. Flood records identified that the Brook breached its banks at Emmbrook School (~500 m downstream of the restoration site), in 2007. Riverside Park channel restoration could slow the flow downstream to the school, offering a potential flood risk reduction. South Wokingham distributor road project (currently in planning stage) was also highlighted as a consideration, by the flood department. This project includes the construction of a new bridge over the Emm Brook, near Chapel Green. The proposed location of this new structure is ~1.7 km upstream of the restoration site, therefore, unlikely to increase flood risk.

4. PLANNING POLICY

4.1 WOKINGHAM BOROUGH COUNCIL LOCAL FLOOD RISK MANAGEMENT STRATEGY

The Wokingham LFRMP was prepared and submitted in April 2015. It discusses historic flooding on the Emm Brook as well as the wider catchment. Although there are no records of flooding at the study site, there are historical events both upstream and downstream. Recurrent flooding issues have been recorded (October 2000, January 2003, July 2007 and during the winter of 2013/14) at the following locations;

- Sylvester close
- Emm Brook School
- Properties within the residential area downstream of Barkham Road
- Finchampstead Road, adjacent to Tesco

As the design is not intended to increase flood risk to key infrastructure and upstream/ downstream areas, it achieves the objectives of the LFRMP.

4.2 THAMES RIVER BASIN MANAGEMENT PLAN (RBMP)

The Thames River Basin District Management Plan (RBMP) was prepared and submitted in December 2015. There is no direct reference to Emm Brook. However, the aim of the management plan is to improve the environment, where possible. As this study looks at reinstating an historic channel for the purposes of habitat improvement and improved fish passage, it aligns with the objectives of the RBMP.

4.3 NPPF SEQUENTIAL TEST

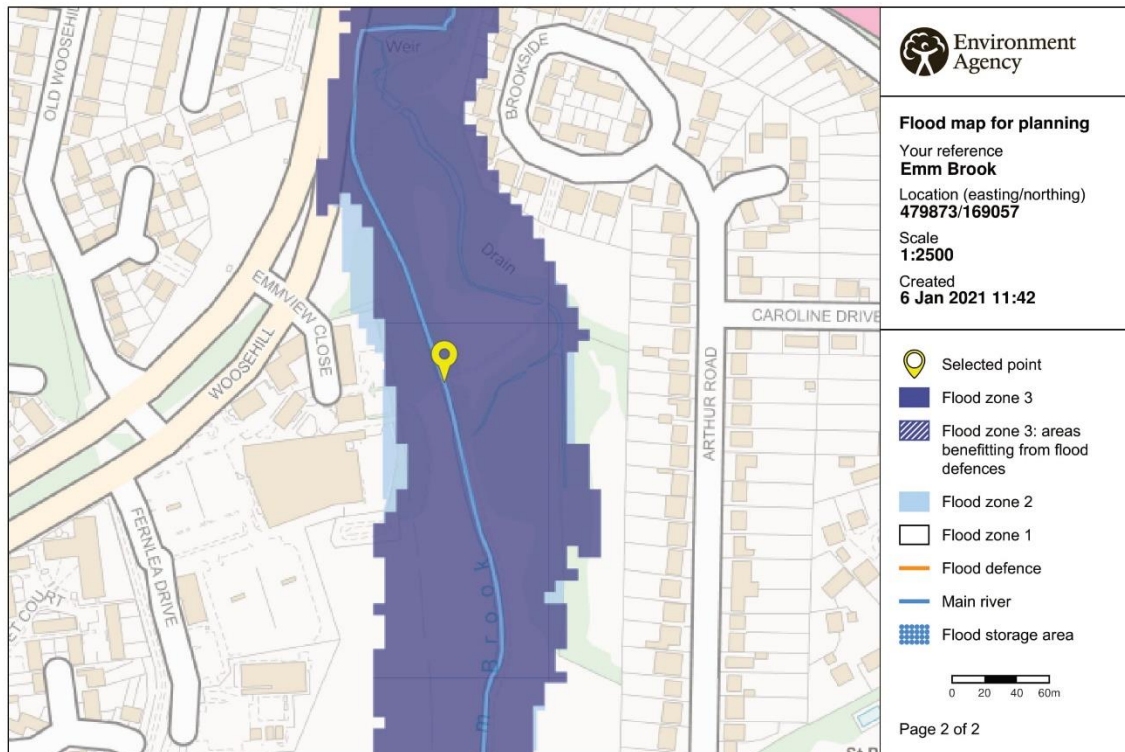
NPPF provides guidance to both the controlling authorities and prospective developers for responsible, sustainable schemes on the functional floodplain. The NPPF provides a Sequential Test, which will help ensure that schemes can be safely and sustainably delivered, and developers do not promote proposals which are inappropriate on flood risk grounds. According to the information available, other forms of flooding should be treated consistently with river flooding in mapping probability and assessing vulnerability to apply the sequential approach across all flood zones.

The proposed scheme lies within Flood Zone 3, high probability of flooding (Figure 3). However, due to the nature of the scheme, i.e. channel re-meandering, it is not possible for the measures to be implemented in an area of lower flood risk, thus it satisfies the requirements of the Sequential Test.

5. ASSESSMENT OF FLOOD RISK

5.1 FLUVIAL

Environment Agency flood maps (Figure 3) reveal that the restoration site is located within the functional floodplain of Flood Zone 3, a greater than 1 in 100 chance of flood in any given year. The primary source of flooding to the site is fluvial, deriving from the Emm Brook.



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Figure 3: Environment Agency flood zone map

5.1.1. Historic flooding

The Statutory Consultation (March 2019) highlighted several historic flooding incidents throughout the Emm Brook catchment. The issues raised were not located at the proposed weir removal site. However, as flooding events have occurred both upstream and downstream (e.g. Emmbrook School in 2007), flood risk is likely to be a main concern at the site.

5.1.2. Hydrology and hydraulic modelling (original model output from 2020, for reference only)

As part of this project, 2D hydraulic modelling was carried out to determine the risk to and from the development from both current and future flood risk. Flows were generated in WINFAP 4 using a pooling group method and are summarised in Table 1.

Table1: Design peak flows

Return period [years]	Peak discharge at upstream end of site [m ³ /s]
5	5.36
20	7.69
100	10.84
100 CC (25%)	13.55
100 CC (35%)	14.63

100 year flood depths and inundations (at 10.84 m³/s) from the hydraulic model are compared in Figure 4. The design has slightly more capacity than existing conditions (the design channel and pond is excavated) and so there is a marginal reduction in flood depths in the park, as shown in the difference map in Figure 5. No properties are flooded at the 100 year return period, including climate uplifts, as a result of the design, and there is no significant difference in flood outline as a result of the design. Design flood levels are lower at the upper end of the site, and so upstream flood risk is not increased.

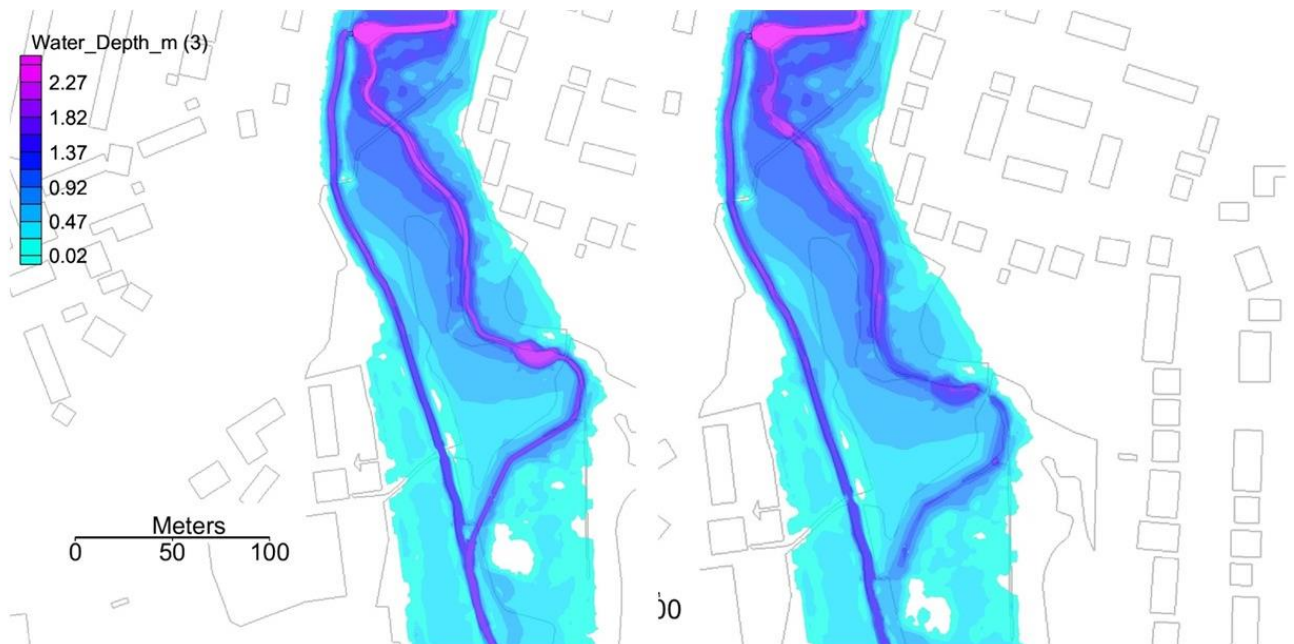


Figure 4: Comparison between inundation pattern, 100 year return period flood. Left frame design condition; right frame existing condition. Contains OS Data, Crown copyright.

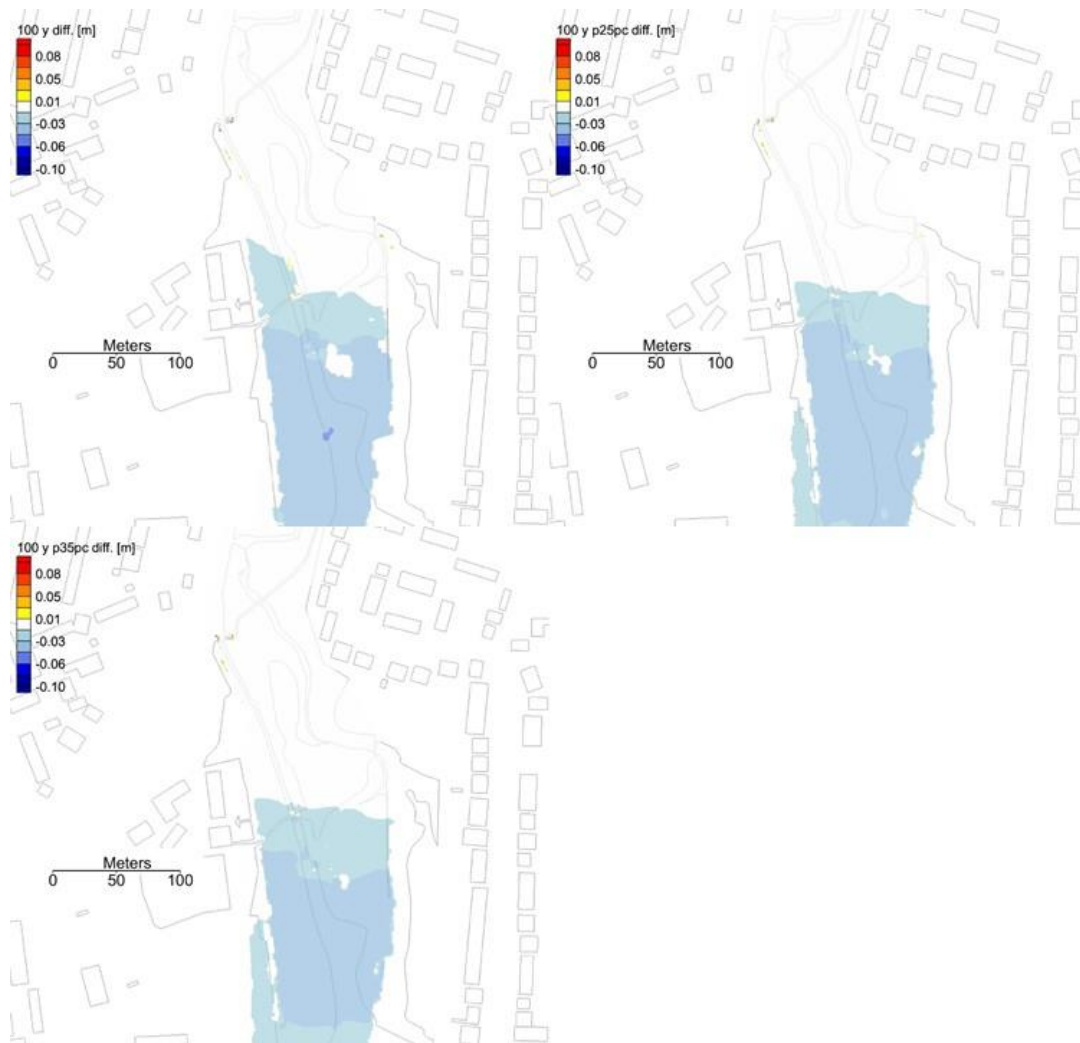


Figure 5: Water level difference maps for 100 year (top left), 100 year plus 25% climate uplift (top right) and 100 year plus 35% uplift (bottom left). Shown is design level minus existing level: the design has a marginally lower level at the upper end of the site. Contains OS Data, Crown copyright.

Downstream flood risk is assessed by computing the hydrograph at the downstream end of the site, and comparing existing and design conditions. Figure 6 compares the hydrograph at the model exit boundary computed using unsteady, time accurate modelling of the 100 year flood. There is no increase to pass forward flow during the hydrograph and so no increase to downstream flood risk.

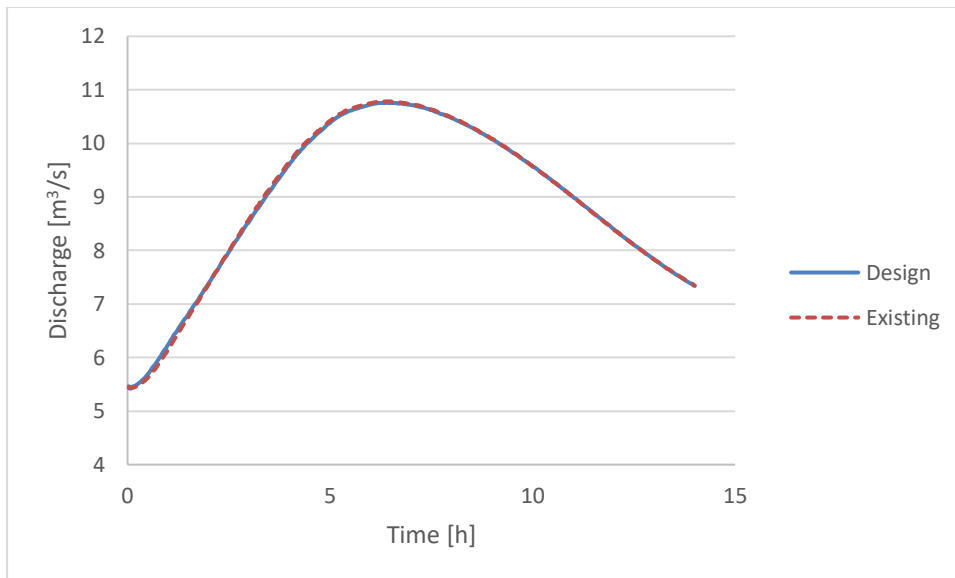


Figure 6: Pass forward hydrographs for design and existing conditions, 100 year flood.

5.1.3. Hydrology and hydraulic modelling (updated following Environment Agency review – 2022)

The hydrology for the project was updated in 2022 to account for an increased URBEXT parameter, and this increased the 100 year return interval flood peak estimate from the previously modelled 10.83 m³/s to 15.10 m³/s. Updated model runs were undertaken for unsteady (ReFH derived) hydrographs for the following flows in **Table 2**.

Table2: Peak flows used in the model.

Flow description	Discharge peak [m ³ /s]
Original model 100 year RP peak (2020) ¹	10.83
Updated 100 year RP peak (2022)	15.10
Updated 100 year RP peak + 14% climate uplift	17.21
Updated 100 year RP peak + 35% climate uplift	20.38

Maximum water depth during the unsteady flood hydrograph is mapped in **Figure 7**, **Figure 8** and **Figure 9** for the updated 100 year, 100 year plus 14% (central estimate 2080) and 100 year plus 35% return period flows for the Emm Brook existing condition and design condition. Difference maps of Design water level minus existing water level peak are also included in **Figure 10**, **Figure 11** and **Figure 12**. The results are consistent with expectations and previous modelling:

¹ For reference only; this flow was modelled as part of the original 2020 study.

- There are no significant changes to inundation between existing and design
- The design slightly lowers levels upstream, by increasing conveyance through the design channel on the right floodplain.
- Water levels at the existing bridges are very slightly reduced (1-3 cm) and slightly increased by 4 cm on the most downstream design bridge, but this afflux is limited to 4 m upstream of the structure.

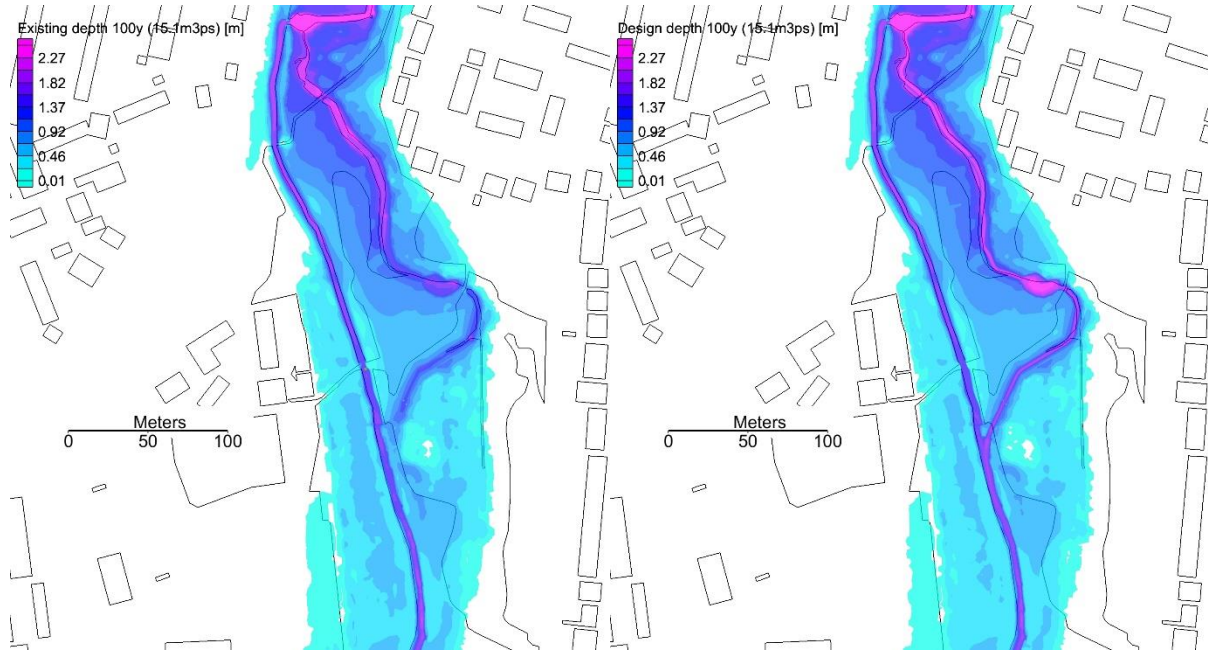


Figure 7: 100 year return period (15.10 m³/s) peak inundation for existing (left) and design (right) condition.

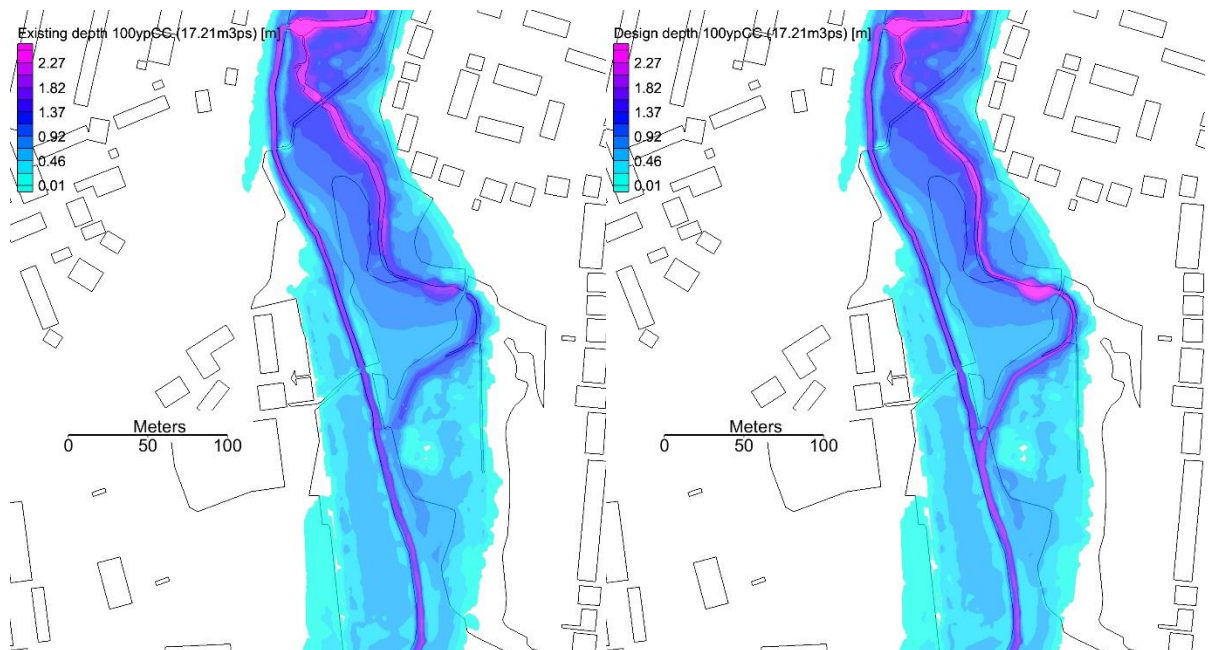


Figure 8: 100 year return period plus 14% central 2080 climate change estimate (17.21 m³/s) peak inundation for existing (left) and design (right) condition.

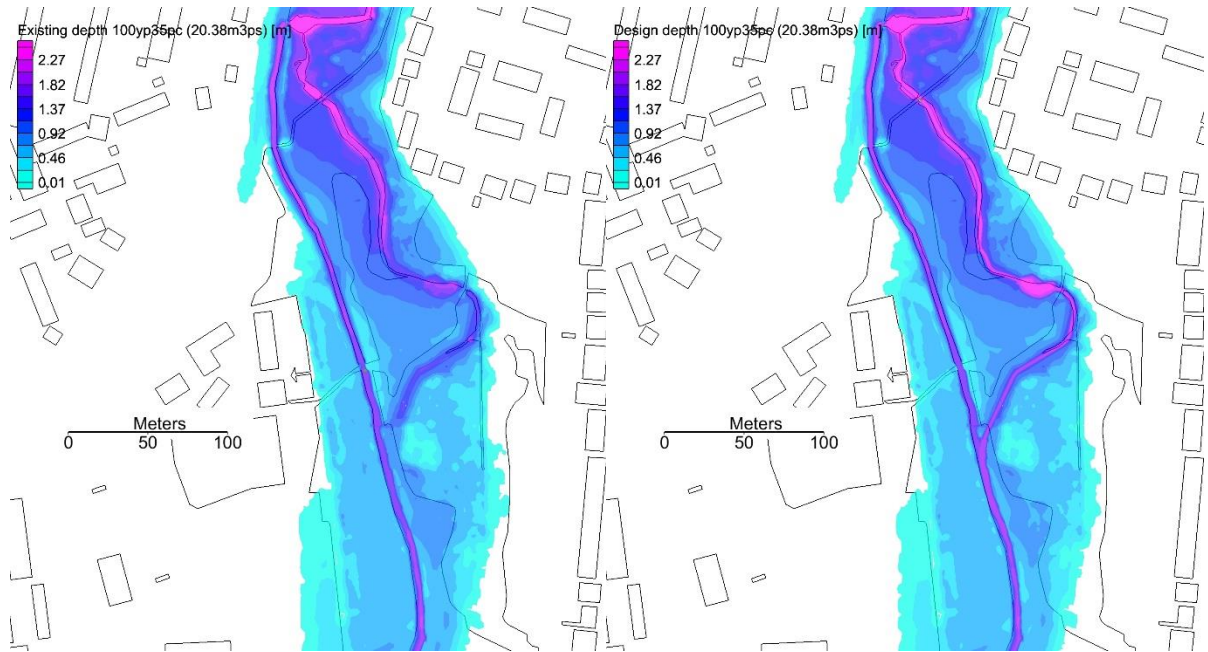


Figure 9: 100 year return period plus 35% (20.38 m³/s) peak inundation for existing (left) and design (right) condition.

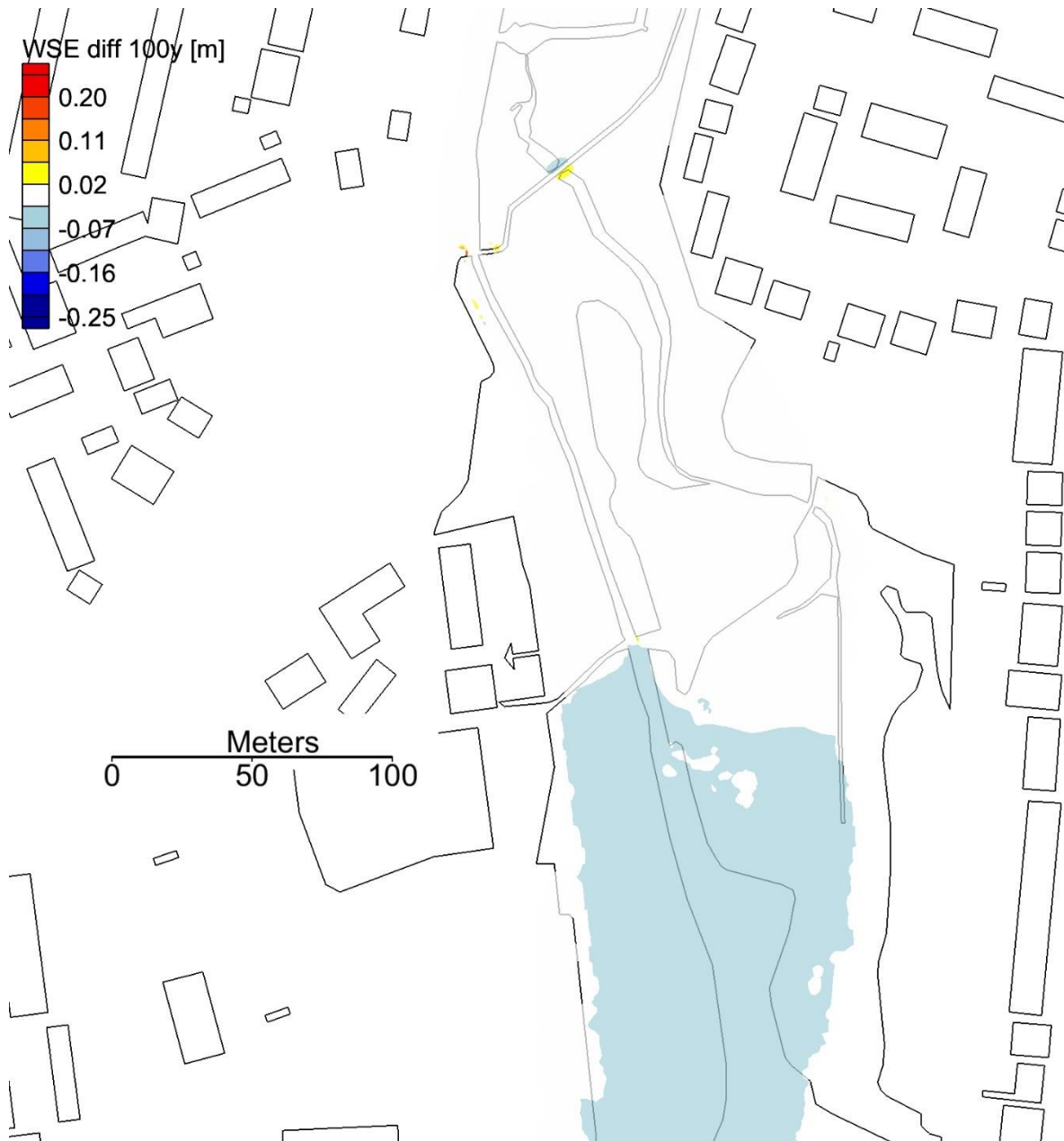


Figure 10: Peak water level difference map (design - existing) for the 100 year return period (15.10 m³/s) flood.

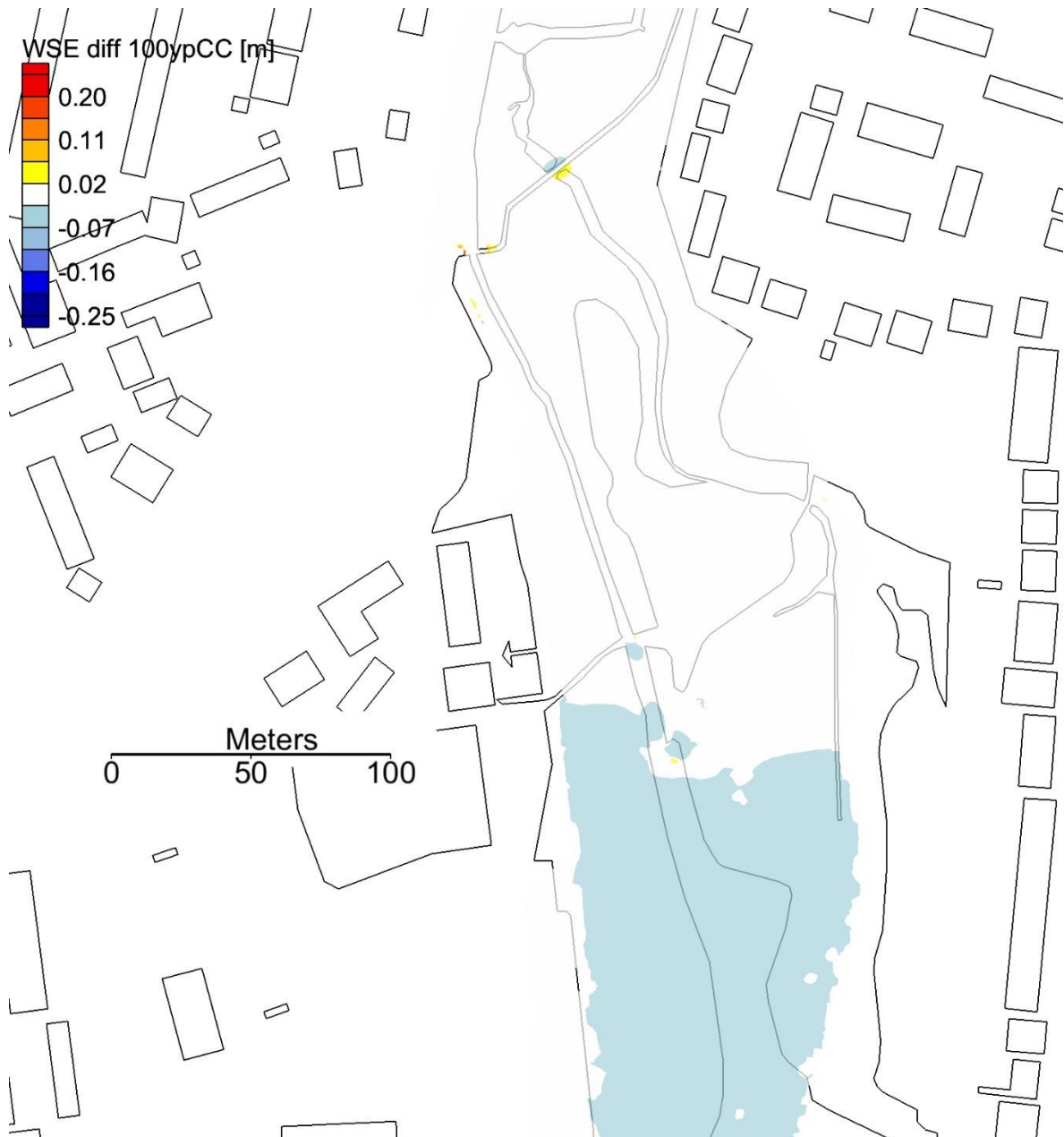


Figure 11: Peak water level difference map (design - existing) for the 100 year return period plus 14% central 2080 climate change estimate (17.21 m³/s) flood.

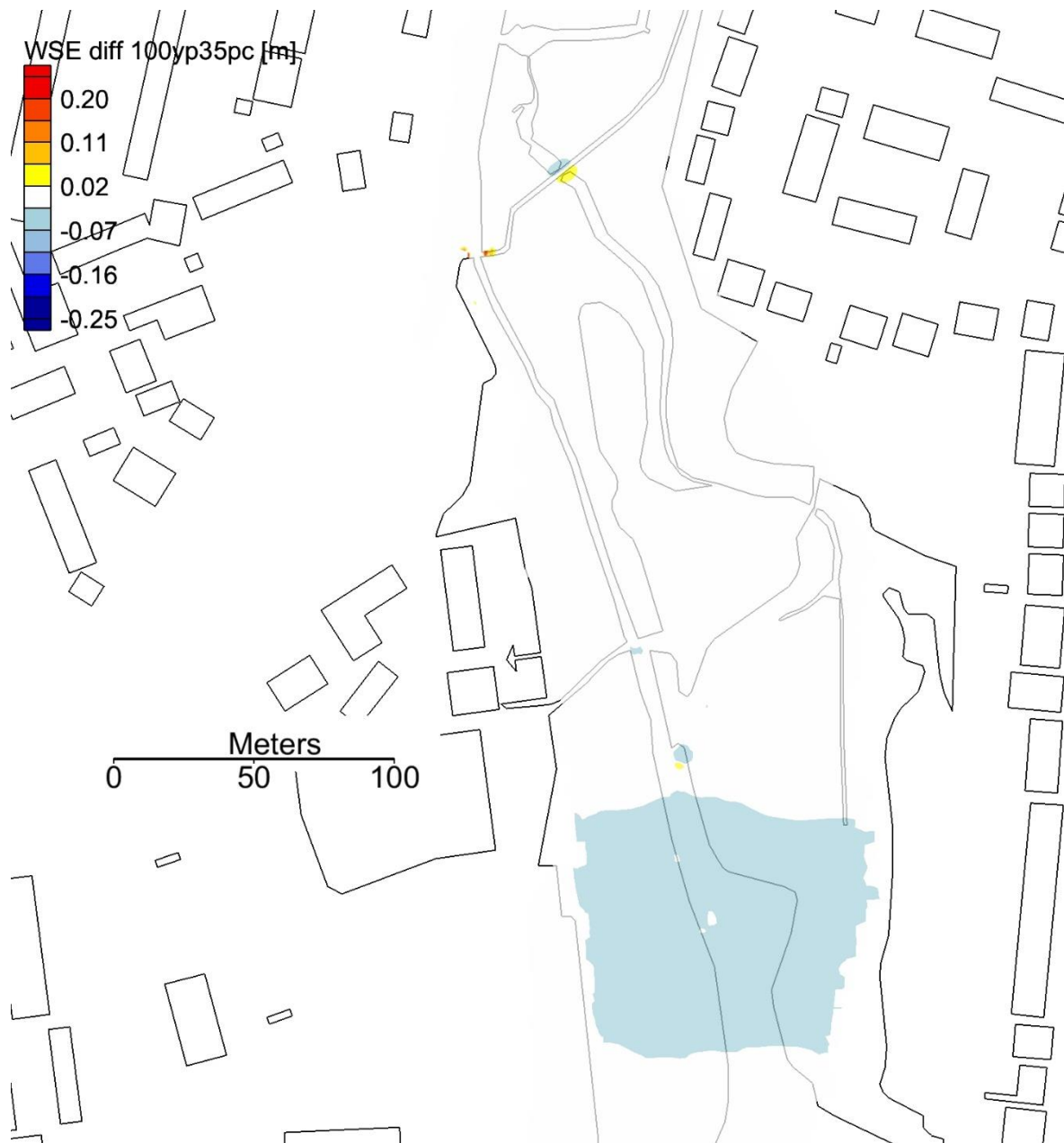


Figure 12: Peak water level difference map (design - existing) for the 100 year return period plus 35% (20.38 m³/s) flood.

Downstream pass-forward flow was calculated for each modelled flow and is tabulated in **Table 3**. There is no increase in pass-forward flow as a result of the design. **Error! Reference source not found.** shows the pass-forward flow hydrograph for the 100 year plus 14% climate uplift flood. At no point in this hydrograph are design pass-forward flows higher than those for the existing condition.

Table 3: Pass-forward flow peaks.

Return period & flow uplift%	Existing peak [m3/s]	Design peak [m3/s]
100	15.08	15.07
100+14% CC	17.20	17.16
100+35%	20.36	20.33

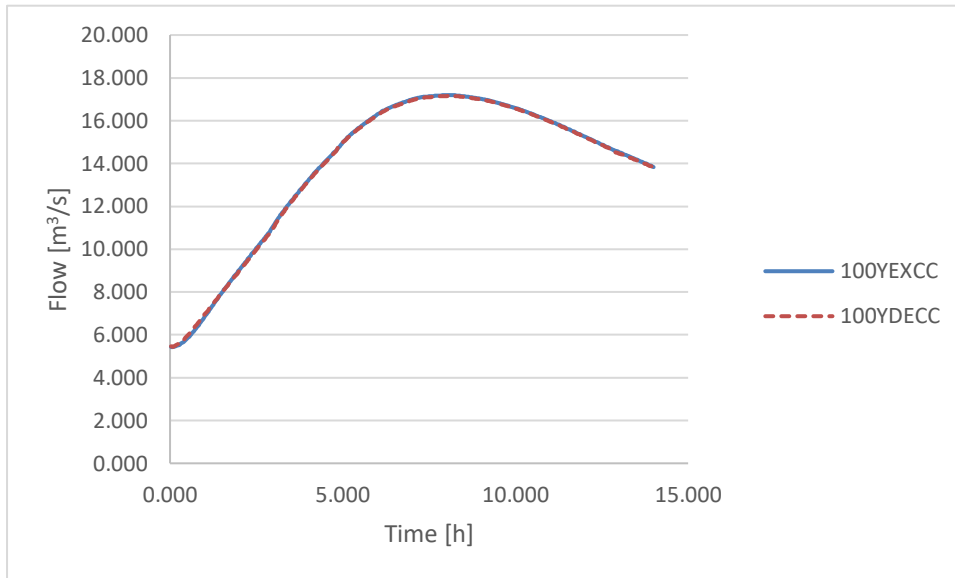


Figure 13: Pass-forward flow hydrograph for the 100 year return period flood plus 14% central 2080 estimate of climate uplift.

5.2 SURFACE WATER

5.2.1. Surface water flood risk to the scheme

While the primary source of flooding to the proposed scheme is fluvial, Figure 7 highlights the risk of surface water flooding to the site.

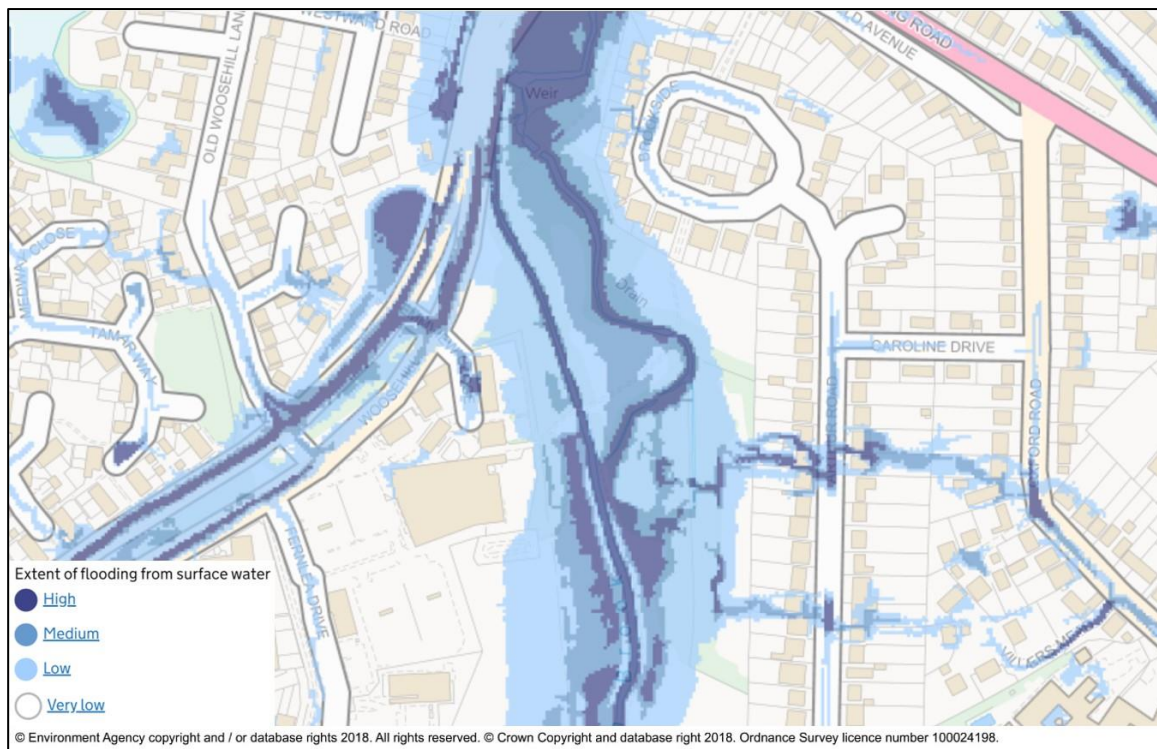


Figure 14: Environment Agency surface water flood zone map

Riverside Park is located within a medium risk area for surface water flooding (the chance of flooding is between 1 in 30 and 1 in 100 each year). Localised areas of high surface water flood risk (greater than 1 in 30 each year) are shown at the upstream extent of the restoration works, where the historic channel diverges from the current Emm Brook channel and at the downstream extent, near the weir.

5.2.2. Surface water flood risk to/from the scheme

As the site is currently Greenfield and will remain Greenfield after construction, it is unlikely that the proposed works will have any impact on, nor will it be impacted by, surface water flood risk.

5.3 GROUNDWATER

5.3.1. Groundwater flood risk to/from the scheme

As the proposed scheme will not add any hardstanding areas or impact any potential groundwater sources or flowpaths, there will be no impact to groundwater flood risk caused by the scheme. As the river is already located at the site, it is not expected that groundwater will impact the proposed scheme.

5.4 STRUCTURES

The proposed works do not pose any threat of increased flood risk to local structures.

5.5 SEWERAGE INFRASTRUCTURE

Two foul sewer pipes are located within the site boundaries. One crosses the existing channel approximately 50 m upstream of the upstream footbridge crossing located at SU 79872 69056 and is not envisaged to be impacted by the works. The second crosses the historic channel approximately 50 m upstream of the footpath crossing at SU 79849 69227. As the pipe is cast iron, Thames Water have confirmed that it has no issue with the historic channel being reinstated, and has advised that the concrete abutments could be trimmed/ set back by up to 1m if required, to improve conveyance at this location.

6. MITIGATION OPTIONS

Whilst the proposed scheme is located within the functional floodplain, as the restoration works are designed to return this section of the Emm Brook to a more natural state, and impact to upstream and downstream flood risk is minimal, no mitigation measures are required.

7. CONCLUSIONS

The proposed scheme lies within the functional floodplain of flood zone 3. However, as the scheme comprises channel realignment and re-meandering with the aim of returning this stretch to a more natural state and improving the fish passage, the works cannot be located within an area of lower flood risk. The scheme does not conflict with policies set out in the Thames River Basin Management Plan (RBMP) and the Wokingham Borough Council Local Flood Risk Management Strategy (LFRMS). Hydraulic modelling demonstrates that the proposed design does not increase flood risk either upstream or downstream and that no properties are at risk from flooding at the 100 year plus climate uplift events.

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Date	10 th June 2022	Issued version	3.0
Author	Gordon Falconer, cbec eco-engineering UK Ltd		
Reviewer	Martin Kernan, cbec eco-engineering UK Ltd		
To	South East Rivers Trust		
Project	Emm Brook		
Subject	Flood estimation report: Emm Brook		

Introduction

This report template is a supporting document to the Environment Agency’s Flood Estimation Guidelines. It provides a record of the hydrological context, the method statement, the calculations and decisions made during flood estimation and the results. This document can be used for one site or multiple sites. If only one site is being assessed, analysts should remove superfluous rows from tables.

Guidance notes (in red text) are included throughout this document in column titles or above tables. These should be deleted before finalising the document. Where relevant, references to specific sections of the Flood Estimation Guidelines document are included to indicate where further useful information can be found.

Note: Column size / page layout can be adapted, where necessary, to best present relevant information, for example, maps do not need to be within the tables if they would be better as a separate page.

Contents

1	Summary of assessment	4
2	Locations where flood estimates required	7
3	Statistical method	9
4	Revitalised flood hydrograph 2 (ReFH2) method	13
7	Discussion and summary of results	15

Abbreviations

AEP	annual exceedance probability
AM	Annual Maximum
AREA.....	Catchment area (km ²)
BFI.....	Base Flow Index
BFIHOST	Base Flow Index derived using the HOST soil classification
CPRE.....	Council for the Protection of Rural England
FARL	FEH index of flood attenuation due to reservoirs and lakes
FEH	Flood Estimation Handbook
FSR	Flood Studies Report
HOST.....	Hydrology of Soil Types
NRFA.....	National River Flow Archive
OS	Ordnance Survey
POT	Peaks Over a Threshold
QMED.....	Median Annual Flood (with return period 2 years)
ReFH	Revitalised Flood Hydrograph method
ReFH2	Revitalised Flood Hydrograph 2 method
SAAR.....	Standard Average Annual Rainfall (mm)
SPR	Standard percentage runoff
SPRHOST	Standard percentage runoff derived using the HOST soil classification
Tp(0)	Time to peak of the instantaneous unit hydrograph
URBAN	Flood Studies Report index of fractional urban extent
URBEXT1990	FEH index of fractional urban extent
URBEXT2000	Revised index of urban extent, measured differently from URBEXT1990
WINFAP-FEH	Windows Frequency Analysis Package – used for FEH statistical method

1 SUMMARY OF ASSESSMENT

1.1 SUMMARY

This table provides a summary of the key information contained within the detailed assessment in the following sections. The aim of the table is to enable quick and easy identification of the type of assessment undertaken. This should assist in identifying an appropriate reviewer and the ability to compare different studies more easily.

Catchment location	
Purpose of study and scope	The purpose of the study was, using a routine assessment, to calculate the peak flow hydrology for the Emm Brook catchment Upstream of Woosehill Spine Road (SU 79850 69350).
Key catchment features	The catchment headwaters are mainly rural. However, there are urban areas towards the downstream extent. There are a number of small standing water bodies within the catchment (Queens Mere, Kings Mere and Heath Lake) and there are no known additional inlets (pumped).
Flooding mechanisms	The main flood mechanisms for the site are fluvial, from the Emm Brook.
Gauged / ungauged	There is an EA level gauge at Taplow Control Structure (2605TH (Downstream Stage)). However, there is no rating curve for this gauge so the waterbody is treated as ungauged.
Final choice of method	Pooling Group
Key limitations / uncertainties in results	

1.2 NOTE ON FLOOD FREQUENCIES

The frequency of a flood can be quoted in terms of a return period, which is defined as the average time between years with at least one larger flood, or as an annual exceedance probability (AEP), which is the inverse of the return period.

Return periods are output by the Flood Estimation Handbook (FEH) software and can be expressed more succinctly than AEP. However, AEP can be helpful when presenting results to members of the public who may associate the concept of return period with a regular occurrence rather than an average recurrence interval. Results tables in this document contain both return period and AEP titles; both rows can be retained or the relevant row can be retained and the other removed, depending on the requirement of the study.

The table below is provided to enable quick conversion between return periods and annual exceedance probabilities.

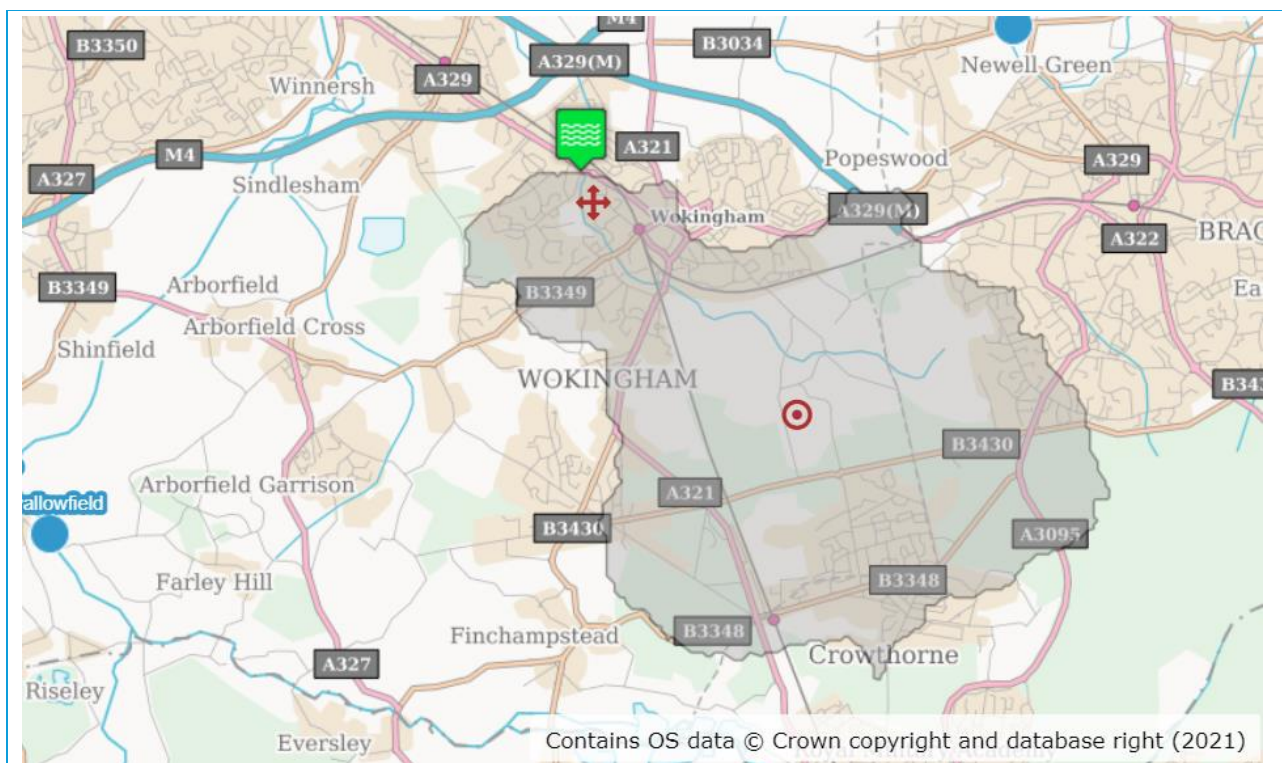
Annual exceedance probability (AEP) and related return period reference table

AEP (%)	50	20	10	5	3.33	2	1.33	1	0.5	0.1
AEP	0.5	0.2	0.1	0.05	0.033	0.02	0.0133	0.01	0.005	0.001
Return period (yrs)	2	5	10	20	30	50	75	100	200	1,000

1.3 REQUIREMENTS FOR FLOOD ESTIMATES

Overview	<p>The purpose of the study was, using a a routine assessment, to calculate the peak flow hydrology for the Emm Brook catchment Upstream of Woosehill Spine Road (HAP1, SU 79850 69350). The peak flows were calculated using a WINFAP 5 Pooling Group and hydrographs from ReFH2 were scaled for unsteady model runs. A climate change allowance of 14% was applied according to the Loddon and tributaries Management Catchment peak river flow allowances central allowance for 2080s.</p>
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1.4 THE CATCHMENT



Description	<p>The Emm Brook is a tributary of the Lower Loddon. The upper catchment is mainly rural with a network of field drains which later fed into the Emm Brook at Redlake Ford. There are a number of small standing water bodies within the catchment (Queens Mere, Kings Mere and Heath Lake) however reservoir flooding has not been considered further in this assessment.</p> <p>The British Geological Survey (BGS) online map shows the bedrock geology comprises London Clay Formation – clay, silt and sand. This is overlain by superficial deposits made up of alluvium – clay, silt, sand and gravel.</p> <p>There are no known formal flood defences along the banks of the modelled section of the Emm Brook and the Environment Agency flood map shows the proposed works as being located within Flood Zone 3 (High Risk). However this would be expected with this type of proposal.</p>
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1.5 SOURCE OF FLOOD PEAK DATA

Source	NRFA peak flows dataset, Version 10, released August 2021. No Changes Made
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1.6 OTHER DATA AVAILABLE AND HOW IT WAS OBTAINED

Type of data	Data relevant to this study?	Data available?	Source of data	Details
Check flow gauging's	N/A			
Historical flood data	Not available when the assessment took place			
Flow or river level data for events	N/A			
Rainfall data for events	N/A			
Potential evaporation data	N/A			
Results from previous studies	Previous study – Flood study WSP 2016	Yes	-	-
Other data or information	N/A			

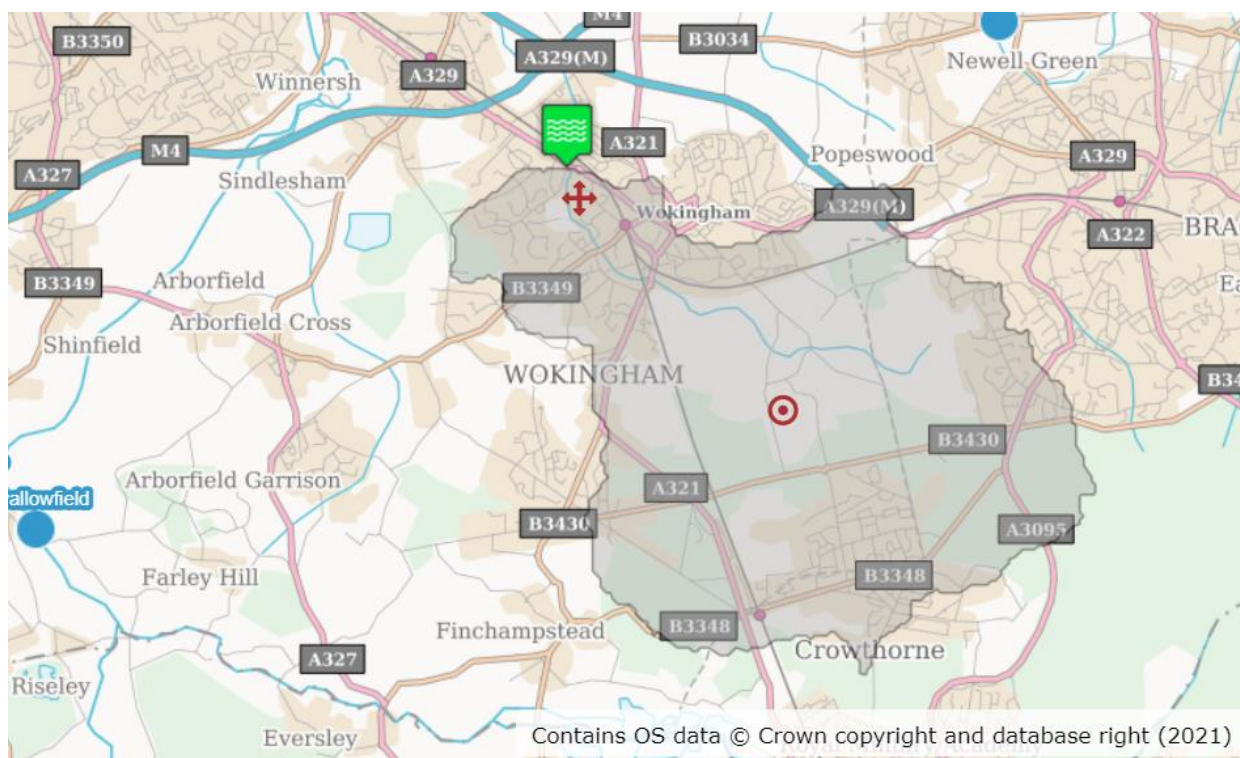
1.7 INITIAL CHOICE OF APPROACH

Is FEH appropriate?	An initial review of catchment descriptors (0.5km ² >AREA<1,000km ² , BFIHOST <0.65 and URBEXT1990<0.125) indicated that FEH methods (FEH Statistical and ReFH2) are applicable to most of the flow estimation points for the study area.
Initial choice of method(s) and reasons	FEH statistical method will be undertaken to include similar gauge information. The ReFH2.3 method will also be used and the results compared with the most appropriate method being chosen based on the results obtained.
How will hydrograph shapes be derived if needed?	<u>Hydrographs</u> Hydrographs will be generated in ReFH2 and scaled to peak flows as appropriate.
Will the catchment be split into sub-catchments? If so, how?	The catchment will not be split into sub-catchments as this is not required
Software to be used (with version numbers)	FEH Web Service ¹ / WINFAP 5 ² / ReFH2.3

¹ CEH 2015. The Flood Estimation Handbook (FEH) Online Service, Centre for Ecology & Hydrology, Wallingford, UK.

² WINFAP 5 © Wallingford HydroSolutions Limited 2021.

2 LOCATIONS WHERE FLOOD ESTIMATES REQUIRED

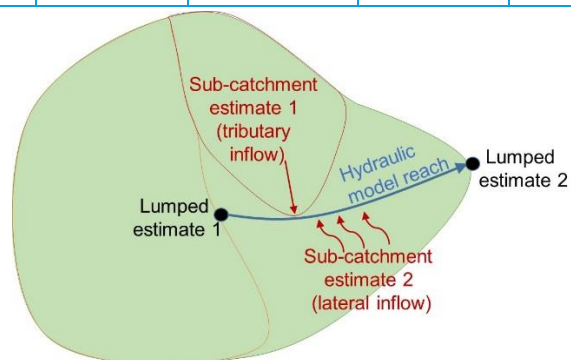


The table below lists the locations of subject sites. The site codes listed below are used in all subsequent tables to save space.

2.1 SUMMARY OF SUBJECT SITES

Site code	Type of estimate L: lumped catchment S: Sub-catchment	Watercourse	Name or description of site	Easting	Northing	AREA on FEH web service (km ²)	Revised AREA if altered
HAP1	L	Emm Brook	Upstream of Woosehill Spine Road and the downstream end of the site	479850	169350	31.64	N/A

Note: Lumped catchments (L) are complete catchments draining to points at which design flows are required.
 Sub-catchments (S) are catchments or intervening areas that are being used as inputs to a semi-distributed model of the river system. There is no need to report any design flows for sub-catchments as they are not relevant: the relevant result is the hydrograph that the sub-catchment is expected to contribute to a design flood event at a point further downstream in the river system. This will be recorded within the hydraulic model output files. However, catchment descriptors and ReFH model parameters should be recorded for sub-catchments so that the results can be reproduced.
 The schematic diagram illustrates the distinction between lumped and sub-catchment estimates.



2.2 IMPORTANT CATCHMENT DESCRIPTORS AT EACH SUBJECT SITE (INCORPORATING ANY CHANGES MADE)

Site code	FARL	PROPWET	BFIHOST	DPLBAR (km)	DPSBAR (m/km)	SAAR (mm)	URBEXT 2000	FPEXT
HAP 1	0.9600	0.290	0.527	6.09	24.20	663	0.1972 0.4230	0.1209

2.3 CHECKING CATCHMENT DESCRIPTORS

Record how catchment boundary was checked and describe any changes	<p>The catchment boundaries were derived by the FEH Online portal, These were visually checked using Ordnance Survey (OS) mapping. This showed that the catchment boundaries defined by the FEH Online portal were reasonable and no changes have been made</p> <p>URBEXT2000 was updated using OS 50,000 scale mapping, this found the catchment descriptors underestimate the urban extent of the catchment and the updated value has been applied to this analysis.</p>
Record how other catchment descriptors were checked and describe any changes.	<p>A visual check was undertaken to compare the urban extent in the FEH Online Portal compared to current OS mapping; the urban area shown on the Web Portal did not match the urban areas shown on the OS mapping and therefore URBEXT2000 was updated accordingly.</p> <p>There are three main types of soil in the catchment:</p> <ul style="list-style-type: none"> - Naturally wet, very acidic sandy and loamy soils (Arable and horticultural some wet lowland heath) - Freely draining slightly acidic loamy soils (Arable and grassland) - Loamy spoils with naturally high groundwater (Arable grassland/woodland) <p>These soils are common in the south of England, which suggests the catchment descriptors are reasonable for this site.</p>
Source of URBEXT	URBEXT 2000 Statistical Method
Method for updating of URBEXT	Updated using OS Mapping (1:50,000 scale)

3 STATISTICAL METHOD

3.1 OVERVIEW OF ESTIMATION OF QMED AT EACH SUBJECT SITE

Site code	QMED (rural) from CDs (m ³ /s)	Data transfer					Urban adjustment factor UAF	Final estimate of QMED Urban (m ³ /s)
		NRFA numbers for donor sites used (see 3.3)	Distance between centroids d _{ij} (km)	Moderated QMED adjustment factor, (A/B) ^a	If more than one donor			
					Weight	Weighted ave. adjustment		
HAP 1	3.439	39052	7.05		0.418	0.92	1.602	5.069
		39007	11.87		0.364			
		39022	21.08		0.302			
		39023	29.21		0.256			
		39011	29.24		0.256			
Are the values of QMED spatially consistent?								
Method used for urban adjustment for subject and donor sites					WINFAP v4 ³			
Parameters used for WINFAP v4 urban adjustment if applicable								
Impervious fraction for built-up areas, IF		Percentage runoff for impervious surfaces, PR _{imp}			Method for calculating fractional urban cover, URBAN			
0.3		70%			From updated URBEXT2000			
Notes								
Methods: AM – Annual maxima; POT – Peaks over threshold; DT – Data transfer (with urban adjustment); CD – Catchment descriptors alone (with urban adjustment); BCW – Catchment descriptors and bankfull channel width (add details); LF – Low flow statistics (add details).								
The QMED adjustment factor A/B for each donor site is moderated using the power term, a, which is a function of the distance between the centroids of the subject catchment and the donor catchment. The final estimate of QMED is (A/B) ^a times the initial (rural) estimate from catchment descriptors.								
Important note on urban adjustment								
The method used to adjust QMED for urbanisation published in Kjeldsen (2010) Error! Bookmark not defined. in which PRUAF is calculated from BFIHOST is not correctly applied in WINFAP-FEH v3.0.003. Significant differences occur only on urban catchments that are highly permeable. This is discussed in Wallingford HydroSolutions (2016) ³ .								

3.2 SEARCH FOR DONOR SITES FOR QMED (IF APPLICABLE)

Comment on potential donor sites	It is best practice to use donors located on the studied watercourse however in this study there is no flow gauge station within the study area.
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³ Wallingford HydroSolutions (2016). WINFAP 4 Urban adjustment procedures.

3.3 DONOR SITES CHOSEN AND QMED ADJUSTMENT FACTORS

NRFA no.	Method (AM or POT)	Adjustment for climatic variation?	QMED from flow data (A)	QMED from catchment descriptors Urban(B)	Adjustment ratio (A/B)
39052	AM	No	7.531	9.554	0.788256228
39007	AM	No	22.4	17.821	1.256944055
39022	AM	No	16.6	13.039	1.273103766
39023	AM	No	2.71	6.671	0.406235947
39011	AM	No	25.850	22.962	1.125773016

3.4 DERIVATION OF POOLING GROUP

Name of group	Site code from whose descriptors group was derived	Subject site treated as gauged?	Changes made to default pooling group, with reasons	Weighted average L-moments
HAP1	HAP1	No	<p>Removed due to high SAAR:</p> <ul style="list-style-type: none"> - 7011 (Black Burn @ Pluscarden Abbey) <p>Removed due to geology:</p> <ul style="list-style-type: none"> - 36010 (Bumpstead Brook @ Broad Green) <p>Removed due to location:</p> <ul style="list-style-type: none"> - 26003 (Foston Beck @ Foston Mill) <p>Removed due to high discordancy:</p> <ul style="list-style-type: none"> - 26013 (Driffield Trout Stream @ Driffield) 	<p>L-CV - 0.254</p> <p>L-Skew - 0.154</p>
<p>Note: Pooling groups were derived using the procedures from Science Report SC050050 (2008).</p>				

3.5 POOLING GROUP

Name of group	NRFA ID	Station	Distance	Years of Data	QMED AM
HAP1	33054	(Babingley @ Castle Rising)	0.611	44	1.132
	41020	(Bevern Stream @ Clappers Bridge)	0.794	51	13.66
	33032	(Heacham @ Heacham)	0.82	52	0.442
	36003	(Box @ Polstead)	0.946	60	3.875
	36004	(Chad Brook @ Long Melford)	0.963	53	4.938
	36007	(Belcham Brook @ Bardfield Bridge)	1.049	55	4.63
	53017	(Boyd @ Bitton)	1.071	47	13.87
	41022	(Lod @ Halfway Bridge)	1.09	50	16.25
	38002	(Ash @ Mardock)	1.523	79	6.735
	38004	(Rib @ Wades mill)	2.196	61	11.621
	-	-	-	552	-

Note: Pooling groups were derived using the procedures from Science Report SC050050 (2008).

3.6 DERIVATION OF FLOOD GROWTH CURVES AT SUBJECT SITES

Site code	Method	If P, ESS or J, name of pooling group	Distribution used and reason for choice	Note any urban adjustment or permeable adjustment	Parameters of distribution	Growth factor for 100-year return period / 1% AEP
HAP1	P	HAP1	Generalised Logistic distribution gives an acceptable fit.	An urban adjustment factor of 1.602 has been applied	Scale 0.323 Shape -0.073	2.815

Notes

Methods: SS – Single site; P – Pooled; ESS – Enhanced single site; J – Joint analysis
 Urban adjustments are all carried out using the method of Kjeldsen (2010).
 Growth curves were derived using the procedures from Science Report SC050050 (2008).

3.7 FLOOD ESTIMATES FROM THE STATISTICAL METHOD

Site code	Flood peak (m ³ /s) for the following return periods (in years)								
	2	5	10	25	50	75	100	200	500
	Flood peak (m ³ /s) for the following AEP (%) events								
	50	20	10	4	2	1.5	1	0.5	0.2
HAP 1 Catchment Descriptors	5.51	7.73	9.26	11.4	13.16	14.27	15.1	17.24	20.45
HAP 1 Donor catchments	5.07	7.11	8.52	10.48	12.11	13.13	13.89	15.87	18.81

Notes

Both catchment descriptors and donor catchments were used to calculate return periods however catchment descriptors provided a more suitable result when compared with other methods and previous studies.

4 REVITALISED FLOOD HYDROGRAPH 2 (REFH2) METHOD

4.1 PARAMETERS FOR REFH2 MODEL

Site code	Method	T _p _{rural} (hours)	T _p _{urban} (hours)	C _{max} (mm)	BL (hours)	BR
HAP1	Catchment descriptors	8.03	6.02	453.08	54.9	2.56
Brief description of any flood event analysis carried out			None taken as lack of flow data			

4.2 DESIGN EVENTS FOR REFH2 METHOD: LUMPED CATCHMENTS]

Site code	Urban or rural	Season of design event (summer or winter)	Critical Storm duration (hours)	Recommended storm duration (hours)	TP Scaling Factor
HAP 1	Urban	Summer	3	13	0.75

ADDITIONAL URBAN PARAMETERS

Site code	Urban Area (km ²)	Impervious Runoff Factor	Imperviousness Factor	TP Scaling Factor	Depression Storage
HAP 1	13.38	0.7	0.4	0.75	0.5

The Critical storm duration was calculated using FEH Rainfall Runoff module in Flood Modeller, this was calculated as 3 hours as shown and was used in the analysis to represent a more convective summer storm. Rainfall data from the Bracknell rainfall gauge was used to check the time to peak on the Emm brook using the level gauge at the Taplow Control Structure. This gauge does not appear to be on the mainstem Emm Brook, instead it is located on a drainage ditch adjacent to the mainstem, so is used with caution however using a number of events it verifies the time to peak from a rainfall event to be in line with the time to peak calculated in ReFH2.3 using the Urban parameters.

Urban drainage has been considered but not analysed fully as part of this assessment as this was not deemed necessary due to the nature of the works. It is believe that urban drainage could impact peak flows/ runoff rates however this is not expected to have an impact on the risk to or from the design. The design is classed as 'Water-Compatible development' under the NPPF and modelling has shown no impact to flood risk at the full range of flows

Urban drainage routes could change the area of the catchment which drains into the Emm Brook, potentially reducing the catchment area. Looking at the catchment on FEH Web service it is unlikely that the drainage area would be increased. Sustainable Urban Drainage schemes (SUDs) are also likely to improve flood storage which could result in slower runoff rates. The assessment carried out does not consider either of these factors so treats them as 'at capacity' which would simulate a flood where no additional storage is available and all water falling on the catchment is treated as runoff into the watercourse. The resulting peak flows are therefore a conservative estimate for runoff into the Emm Brook.

4.3 FLOOD ESTIMATES FROM THE REFH2 METHOD

Site code	Flood peak (m ³ /s) for the following return periods (in years)								
	2	5	10	25	50	75	100	200	500
	Flood peak (m ³ /s) for the following AEP (%) events								
	50	20	10	4	2	1.5	1	0.5	0.2
HAP 1	4.49	6.49	7.92	9.86	11.47	12.48	13.24	15.3	18.82

7 DISCUSSION AND SUMMARY OF RESULTS

7.1 COMPARISON OF RESULTS FROM DIFFERENT METHODS

Site code	Ratio of peak flow to FEH Statistical peak			
	Return period 2 years / 50% AEP		Return period 100 years / 1% AEP	
	ReFH2	Pooled	ReFH2	Pooled
HAP 1	4.49	5.51	13.24	15.1

7.2 FINAL CHOICE OF METHOD

Choice of method and reasons	<p>Donor Catchment information was used to try and improve flow estimates however it was decided that catchment descriptor information with updated URBEXT was more appropriate for the analysis. Therefore the statistical method using Catchment Descriptors was used in favour of the donor catchment method.</p> <p>When comparing the FEH statistical and ReFH2.3 methods, while both flows were comparable, the WINFAP Pooling method provided slightly more conservative flow estimates which were subsequently used. The statistical approach is based on actual gauged data included a large dataset of flood events. This approach has been more directly calibrated to reproduce flood frequency on UK catchment so is the preferred approach.</p>
How will the flows be applied to a hydraulic model	As a final approach it was decided to use the flood hydrographs estimated with the ReFH2 method scaled to the WINFAP pooling group peak flows to allow unsteady model inputs. These flows will be input into the model through a single inflow point at the top of the model.

7.3 ASSUMPTIONS, LIMITATIONS AND UNCERTAINTY

List the main assumptions made (specific to this study)	- The pooling group generated is representative for the Emm Brook catchment
Discuss any particular limitations,	<ul style="list-style-type: none"> - The FEH Statistical method is not recommended for predicting flow estimates for the return periods greater than 200-years. However these flows were not used in the model, they were produced in this assessment as standard practice. - Urban drainage has not been fully assessed, this could alter peak flows/runoff rates into the catchment with urban drainage potentially bypassing the catchment and also storage such as SUDs schemes not being accounted for.
Provide information on the uncertainty in the design peak flow estimates and the methodology used	- The FEH Statistical method was chosen so uncertainty in the results will be checked within model.
Comment on the suitability of the results for future studies,	- The results can be replicated and updated for the future studies in chosen locations. However the results presented in this report are considered in the context of this study needs only.
Give any other comments on the study	- N/A

7.4 CHECKS

Are the results consistent, for example at confluences?	The results are consistent with previous studies. However there is only one assessment point so there are no confluences etc to check.
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What do the results imply regarding the return periods / frequency of floods during the period of record?	Flow data are not available.
What is the range of 100-year / 1% AEP growth factors? Is this realistic?	The 100 Year growth factor for ReFH2 is between 2.5 – 3 which are within the typical range according to guidance. Q100 WINFAP Pooling group = 2.815 Q100 ReFH2.3 = 2.9 Q1000 WINFAP Pooling group = 4.193 Q1000 ReFH2.3 = 4.97
If 1000-year / 0.1% AEP flows have been derived, what is the range of ratios for 1000-year / 0.1% AEP flow over 100-year / 1% AEP flow?	These flows have not been derived as they were not required.
How do the results compare with those of other studies? Explain any differences and conclude which results should be preferred.	The results in this study are extremely comparable to the study by WSP in 2016 for site EM100.
Are the results compatible with the longer-term flood history?	No flood history was available at the time of the study.
Describe any other checks on the results	Sensitivity checks will be conducted in the hydraulic modelling.

7.5 FINAL RESULTS

Site code	Flood peak (m ³ /s) for the following return periods (in years)								
	2	5	10	25	50	75	100	200	500
	Flood peak (m ³ /s) for the following AEP (%) events								
	50	20	10	4	2	1.5	1	0.5	0.2
HAP 1	5.51	7.73	9.26	11.4	13.16	14.27	15.1	17.24	20.45

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South East Rivers Trust, Emm Brook Pipe Bridge Detailed Design report

25/04/2022



GHY-SERT-04-DOC-04 - Detailed Design Document.Docx

This document has been updated from the options appraisal document to record the early design process and the conclusions of the detailed design. Section 4 still contains the options considered, however section 5 (recommendations) has been deleted instead continuing with section 6 – Design solution.

CONTENTS

1	Introduction	3
2	Location	3
3	Scheme Background.....	4
3.1	Scheme proposals.....	4
3.2	Existing sewer	4
3.3	Location of manhole vs. proposed channel.....	5
3.4	Modelling.....	5
4	Options discussion.....	6
4.1	Standard pipe length – OPTION 1	6
4.2	Fabricated pipe – OPTION 2	7
4.3	Re-locate manhole – OPTION 3.....	7
5	Recommendations	7
6	Design Solution.....	8
	Appendix A – Constraints plan	10
	Appendix B – Layout plan	11
	Appendix C – Thames Water Correspondence	12
	Appendix D – Settlement Calculations	13
	Appendix E – Embankment Options.....	14

Issue Ref	Date	Author	Check	Review	Description
A	16-02-22	AMH			Draft issue
B	25-04-22	AMH	AMT	AMH	Updated from options appraisal into detailed design document.

1 INTRODUCTION

Ghyston Engineering Ltd has been employed by South East Rivers Trust to consider an existing foul sewer pipe in Wokingham and how this should be amended and supported in order to cross the restored channel of the Emm Brook as part of the proposed scheme.

The larger scheme describes the development of a river restoration design for a reach of the Emm Brook, South of Wokingham, Berkshire. The brook is a tributary of the River Loddon, itself part of the wider River Thames catchment.

Restoration Reach: OS NGR SU 79910 68889 to SU 79824 69269. The ultimate aim of the project was to develop a design to re-instate a historic channel located to the east of the current course of the Emm Brook, bypassing the existing channel and an associated weir structure at the downstream end of the site.

2 LOCATION

The proposed project is contained within the public green space (Woosehill Meadows) located to the east of Woosehill spine road and south of Reading Road along the river corridor. The green space is located adjacent to commercial units (supermarket) and residential housing, as such it has a mixture of uses, but a relatively high footfall.

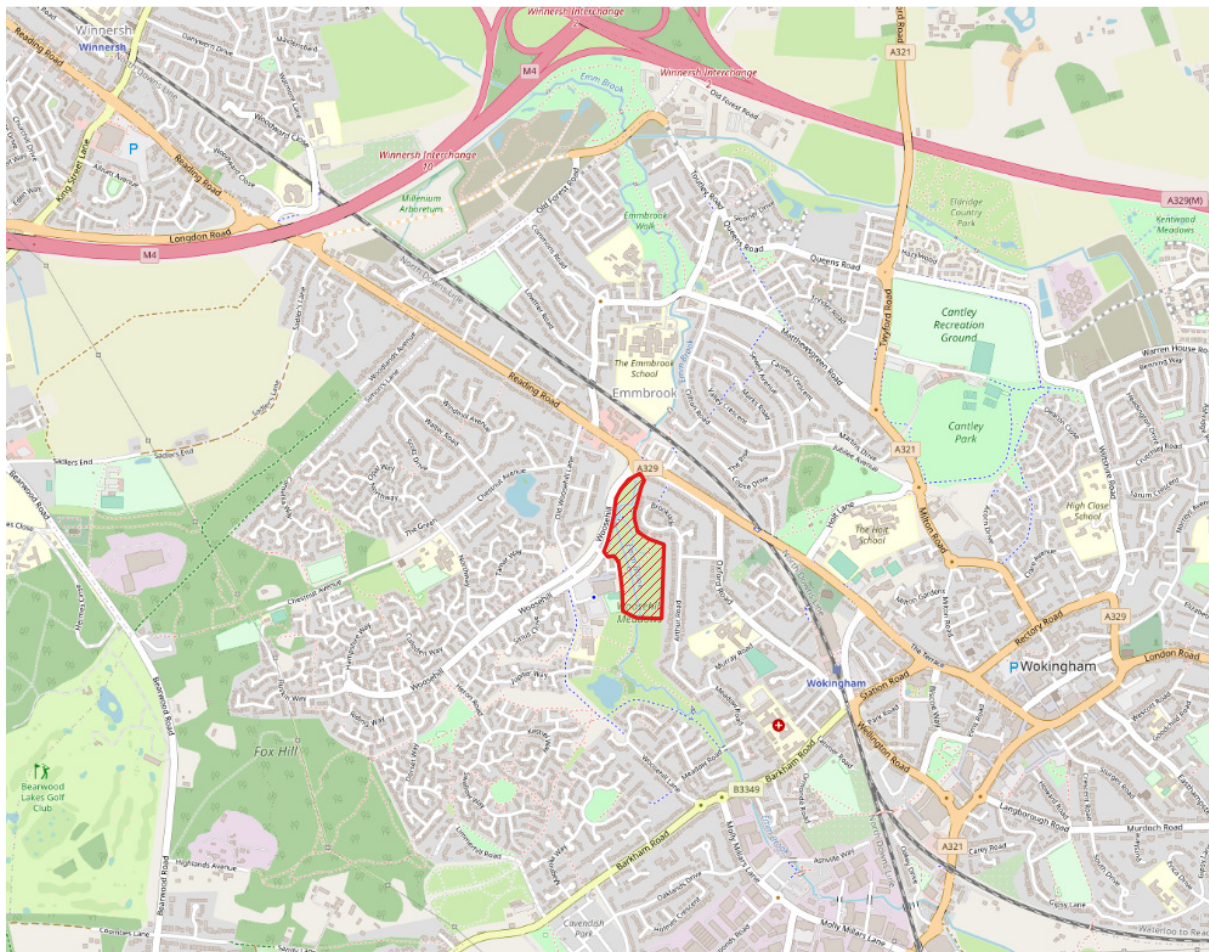


Figure 1 - Location plan

3 SCHEME BACKGROUND

3.1 Scheme proposals

The proposed scheme has been developed by South East Rivers Trust and CBEC Eco Engineering. Their designs were based upon a topo survey dated February 2019 “Emm Brook - Existing Conditions - Updated cbec - February 2019” which also corresponds with the survey “M&P - Emm Brook -5006_comb 2017”. This survey has been the basis of the following options appraisal in order to maintain a consistent set of levels throughout the scheme. The proposal is to reinstate the paleochannel of the Emm brook which lies just to the East of the existing watercourse. This will require a new off-take structure to divert flows, but will avoid a number of structures that are impassable to fish and will present an opportunity to increase the biodiversity of the reach, creating additional habitat along this watercourse.

Near the point at which the new channel is to diverge from the existing, the route of the channel passes over an existing foul water sewer which will need to be arranged so that the pipe freely spans the channel in its new arrangement.

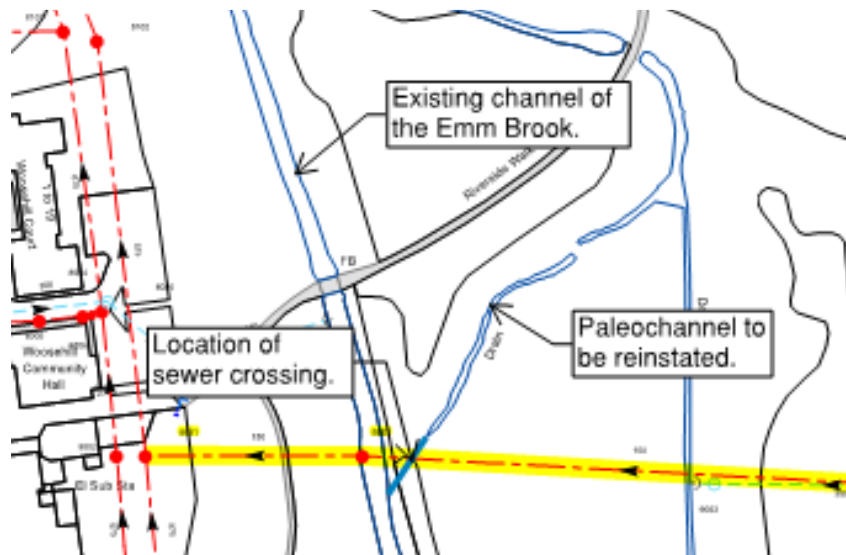


Figure 2 - Location of sewer crossing

3.2 Existing sewer

The site investigations that exposed the existing foul sewer discovered that the pipe is bedded onto concrete. It is supposed that this was done due to the poor ground conditions to provide additional support, however it is currently not known whether this has taken the form of concrete beams under the pipe between manholes or concrete pads to help spread the load and reduce the amount of settlement the pipes would experience.

Beams between the manholes seem unlikely due to the distance between manholes (40m and 80m). Also the concrete supports did not appear to be cast in shutters which would be expected for reinforced concrete structures. It is therefore supposed that the concrete was poured under the pipes to provide a wider footing and spread the load, therefore increasing the contact area of the pipes, which increases support to the pipes in the attempt to reduce

settlement. This rationale has been expressed to Thames Water who has agreed that this is the most likely reason for this installation detail.

The underside of the sewer pipe is positioned at a level some 330mm above the base of the currently proposed channel. There are concerns that this would easily become blocked / obstructed with debris considering the nature of the wooded area within which this pipe cross is set. It is therefore recommended that the channel be widened and deepened into a pool at this location to increase the flow area, reduce the velocity of the water around the pipe and provide a greater flow area which may then be more resistant to blockages. However due to the decrease velocity in the channel at this location, deposition of silt is probable over time, so there may be a requirement for regular maintenance to clear silt from this area.

3.3 Location of manhole vs. proposed channel

The existing manhole serving the foul sewer is located near the centre of the proposed channel alignment and would significantly obstruct flows should the scheme be constructed as currently proposed. The two solutions at hand are to adjust the channel profile to avoid the manhole or to move the manhole. These options are discussed in section 4.

3.4 Modelling

CBEC have completed hydraulic modelling of the existing and proposed conditions in order to establish the effects on flood risk, flow depths, and velocities for the consideration of fish passage. Generally their target was to retain a flow velocity under 1.3m/s for flow volumes upto 1.5m³/s. At the sewer crossing, the calculated water level is 44.275mAOD, with the underside of the pipe set at a level between 44.16 - 44.23mAOD. This would then require the channel to be enlarged at this location to increase the flow area as mentioned in 3.2 above. Considering the maximum velocity for the predicted flow volume above this gives a minimum flow area of 1.15m² at this water level.

4 OPTIONS DISCUSSION

The three main arrangements being considered are utilising a standard ductile iron pipe length (6m for a spigot socket or 5.5m for a flanged pipe), to have a steel pipe specially fabricated for this purpose in order to extend the free span of the pipe and whether to adjust the channel profile or move the manhole. These options are shown in drawings GHY-SERT-04-DWG-11-A.1 and GHY-SERT-04-DWG-13-A

4.1 Standard pipe length – OPTION 1

Utilising the standard pipe length is likely to result in a more cost effective solution, and to be more favourable with Thames Water (the sewerage undertaker) as standard pipes require standard maintenance and no special ongoing considerations (this has been confirmed as their preference within an email received from developer services on 14th February 2022). A standard 150mm pipe has a effective length of 5.5m. This would therefore represent the span for a single pipe length, however Saint Gobain (a well know industry standard supplier of ductile iron pipe) provides technical literature describing how bridges can be formed with standard lengths of pipe upto a length of 11m with spigot-socket joints or 10m with flanged joints as shown in Figure 3 below.

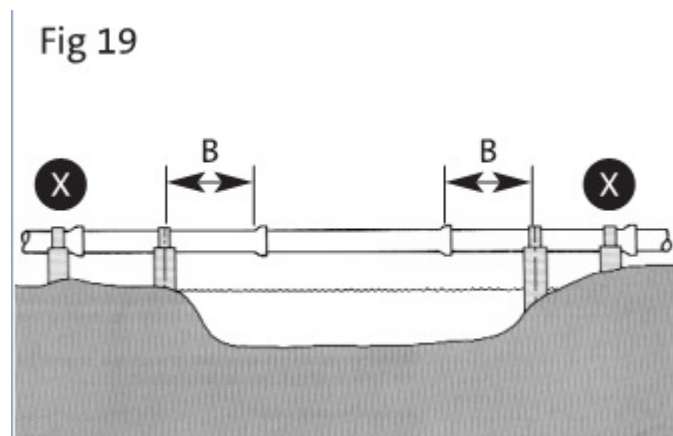


Figure 3 - Saint Gobain pipe bridge arrangement

It is noted that this may be undesirable as this would leave pipe joints over the watercourse. From a technical perspective this risk could be mitigated by ensuring that the pipe was air tested before completing the diversion in order to prove the efficacy of the installation and that the pipe did not leak on completion of the installation.

Even if a joint over the watercourse was deemed unacceptable, the use of standard pipes would leave pipe joints in close proximity to the water course, either side of the crossing location – it is noted that flexible joints are required in order to accommodate differential settlement between new and existing parts of the pipeline.

The arrangement showing the enlarged channel (option 1 shown within Appendix B) provides a flow area under the pipe of 1.52m² (sufficient to keep the flow velocity within the designed parameters). This profile also provides a pipe span of 4.1m at the predicted mean daily flow water level (the CBEC profile was previously only providing 2.4m span length). This span length could potentially be increased further and the channel could be further deepened should the project team feel that additional redundancy is required within the design.

A potential risk to the arrangement is the erosion of the banks of this arrangement especially around the manhole, which could be undermined by hydraulic action. It is therefore proposed to line the southern embankment of the channel with the Flex MSE stabilisation system. This is system of soil filled bags that are installed with interlocking plates that bind the system together. Once installed they can be seeded and can form a vegetated bank whilst providing protection from scour.

4.2 Fabricated pipe – OPTION 2

It has been confirmed by Thames water that they would prefer a design that used a standard ductile iron pipe rather than a specially fabricated steel pipe. This is so that it can be maintained in a regular manner (and if necessary replaced with regular pipe and fittings rather than having to wait for a specially fabricated piece to be made). The onus would therefore be on us / the design team to prove that a longer section of pipe is absolutely required, and the same design could not be delivered with standard pipe lengths. Considering that a free span of 4-5m can already be achieved with the standard ductile iron pipe which appears to achieve the requirements of the scheme (sufficient depth of flow for fish passage and cross sectional area for flow velocity) I do not believe that further consideration of a steel special pipe is necessary.

4.3 Re-locate manhole – OPTION 3

The third consideration is to re-locate the manhole in order to achieve the channel alignment as currently designed rather than amend the channel profile within this area. Replacement of a manhole will require over pumping for a longer period of time and a larger construction activity than re-profiling the channel to fit around the existing constraints. The level of the pipe would be unaffected, such that a larger cross section would still be required in this area (to protect the pipe crossing from a build-up of debris and reduce the anticipated flow velocity). There are considerations regarding the trees and their root balls to be considered, how the proposed alignment and resultant excavations might affect them, however the re-establishment of the channel will have to consider this implication in which-ever location the channel is excavated.

5 RECOMMENDATIONS

Text from options appraisal has been deleted. The design narrative is now continued within section 6.

6 DESIGN SOLUTION

Through discussions with South East Rivers Trust and Thames water option 1 has been chosen as the most favourable. Thames Water were opposed to the use of a steel special pipe, as this will complicate maintenance requirements for this crossing, and it was shown that sufficient cross sectional area could be made available to flows to adequately decrease the risk of blockages at this location. Moving the manhole was shown to be the most expensive option and was seen as unfavourable due to construction considerations such as increased over-pumping, risk associated with settlement of a new manhole, and increased works next to the watercourse.

Due to difficulties with the ground conditions (high water table, presence of peat etc) it was decided to opt for a shallow raft foundation instead of a deep excavation reaching down to the firm / stiff clays some 3.5m below. The ground investigations undertaken by RSK were used to determine the potential settlement of a pad foundation to support the east end of the pipework. These calculations are included within appendix D and determine the settlement as less than 5mm. This was submitted to Thames water for their consideration, who returned a positive verdict, agreeing that this level of settlement would be acceptable and could be accommodated within the pipeline.

It is noted that the pipe gradient at the crossing location has been measured on site as 1:50 (measurement by GD Contracting Ltd 12-08-2021 – supplied by SERT). This gradient would provide 110mm of fall per pipe length, therefore a 5mm settlement would be inconsequential to the operation of the gravity sewer.

Consideration has been given to the lateral forces on the exposed pipe from the water within the channel during flood conditions and support provided to the pipeline by the proposed foundation. CBEC Eco Engineering has produced the report document “U20-1057 Emm_Brook_Model_Update_Report_23_12_20” in which table 3 displays the anticipated water velocity for the 100 year flood event, showing that at the southern bridge (inlet control located adjacent to the pipe crossing position) the anticipated flow velocity is 1.08m/s.

Table 3 Velocity peaks at key structures during the 100 year return period hydrograph.

Bridge Name	Peak 100 y RP velocity [m/s]
Kingfisher	1.06
Un-named, existing channel north	0.40
South Bridge/control	1.08
Upstream of pond	0.46
Northern bridge, design channel	0.33
Between Alder tree trunks	0.86

Considering that within the proposed arrangement, 4.57m of the pipe will be exposed, this would give rise to an exposed face of 0.777m^2 (150mm ductile pipe with outside diameter of 170mm). This would give rise to a force of 0.84kN (0.42kN per end of pipe) to be resisted. The manhole is of sufficient bulk to resist such a force without consideration. However the new pad foundation is considered in the *Figure 4* below.

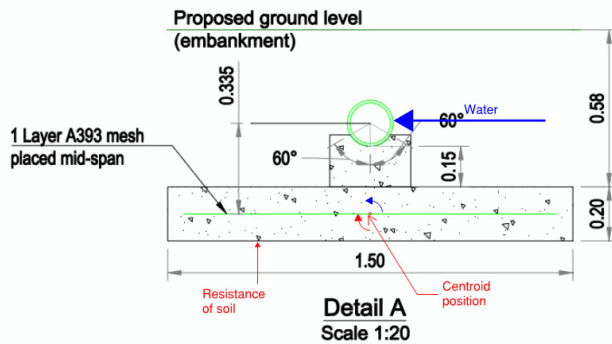
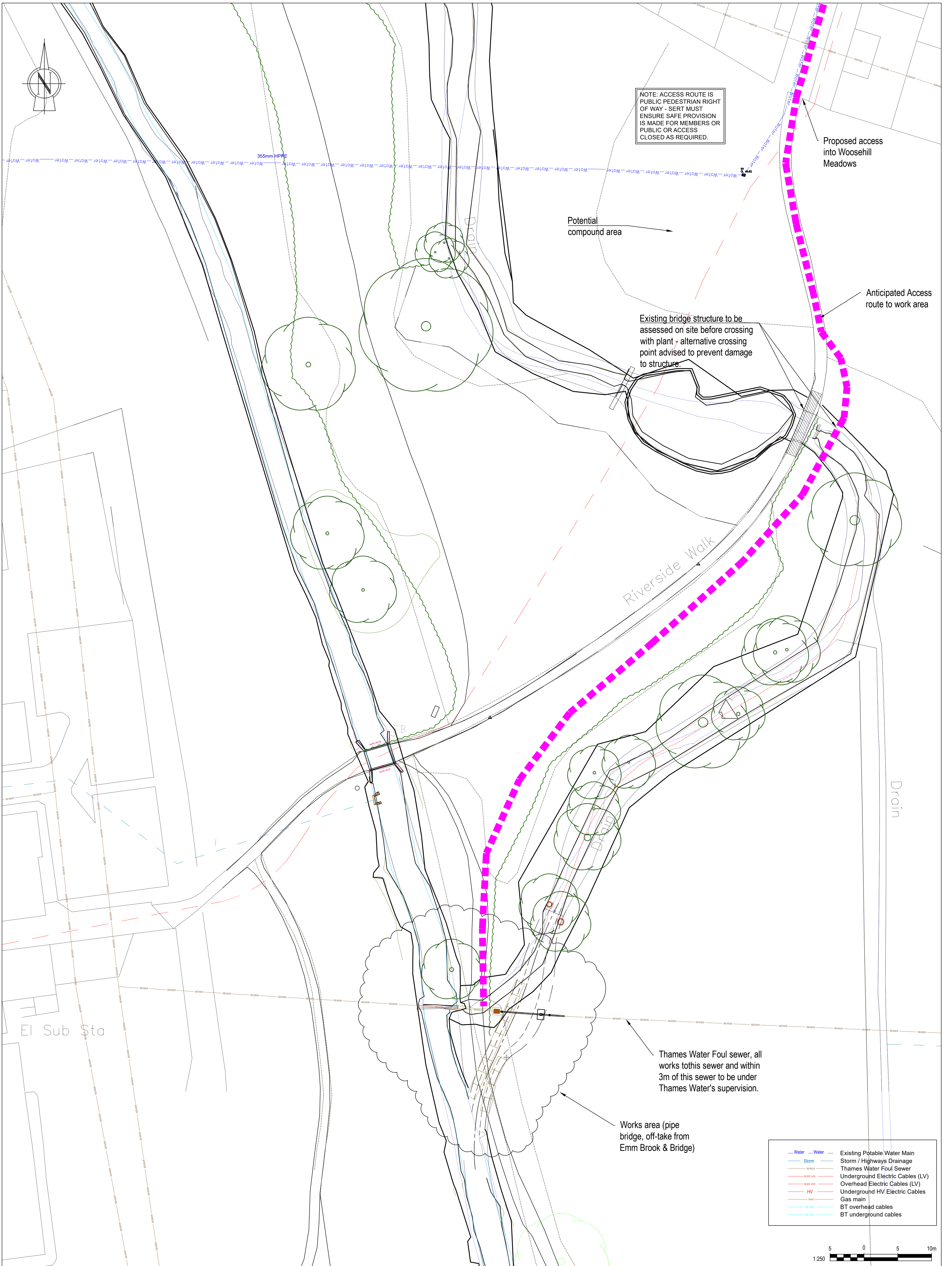


Figure 4 - Overturning forces

The force of water would act with a lever of 0.335m giving a total moment of (0.42×0.335) 0.14kNm. The resisting force would be the resistance of the soil under the opposite side of the pad foundation (the weight of the pad and soil above would equalise on either side of the centroid). The pad foundation is 1.5m x 1.0m, giving a half area of 0.75m^2 and a lever arm of $1.5\text{m}/4 = 0.375\text{m}$. The resisting capacity (shear strength) of the soil would therefore need to be a minimum of $0.5\text{kN}/\text{m}^2$. The soil testing from Windows Sample hole 2 (next to the proposed bridge location) gave a peak shear strength $18\text{ kN}/\text{m}^2$ and in trial pit 1 (same location) the shear strength was $10\text{kN}/\text{m}^2$. This shows ample capacity to resist the overturning forces applied by the force of water passing down the watercourse.

The final consideration was in regards to the embankment protection. It is anticipated that the force of water being directed down the new channel would give rise to a scouring action especially on the west bank of the new arrangement. It is therefore proposed to install a series of gabion baskets along this length to protect the embankment. Different protection methods were discussed and gabions was chosen as the favoured solution by SERT (see appendix E for the embankment options considered).

APPENDIX A – CONSTRAINTS PLAN



NOTE: ACCESS ROUTE IS PUBLIC PEDESTRIAN RIGHT OF WAY - SERT MUST ENSURE SAFE PROVISION IS MADE FOR MEMBERS OR PUBLIC OR ACCESS CLOSED AS REQUIRED.

Proposed access into Wooshill Meadows

Potential compound area

Existing bridge structure to be assessed on site before crossing with plant - alternative crossing point advised to prevent damage to structure.

Anticipated Access route to work area

Riverside Walk

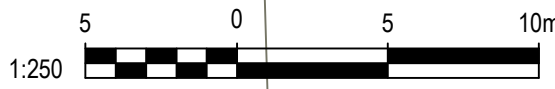
Drain

El Sub Sta

Thames Water Foul sewer, all works to this sewer and within 3m of this sewer to be under Thames Water's supervision.

Works area (pipe bridge, off-take from Emm Brook & Bridge)

Water	Existing Potable Water Main
Storm	Storm / Highways Drainage
Sewer	Thames Water Foul Sewer
ELEC LV	Underground Electric Cables (LV)
ELEC HV	Overhead Electric Cables (LV)
HV	Underground HV Electric Cables
GAS	Gas main
BT OH	BT overhead cables
BT UC	BT underground cables



NOTES:
1. This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialists drawings together with the specification.

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SCALING FROM THIS DRAWING OR OBTAINING DIMENSIONS ELECTRONICALLY MAY NOT PROVIDE ACCURATE INFORMATION AND SHOULD BE AVOIDED. WORK ONLY FROM FIGURED DIMENSIONS.

B	EMBANKMENT PROTECTION CHANGED TO SINGLE GABION BASKET	27-04-22
A	1ST ISSUE	25-04-22
REV	REVISION DETAILS	DATE



5 FURZE ROAD, FISHPONDS, BRISTOL, BS16 4HR
TEL - 0117 325 0745
email : Alex@GhystonEngineering.co.uk

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PROJECT TITLE
EMM BROOK
PIPE BRIDGE

DRAWING TITLE
CONSTRAINTS PLAN

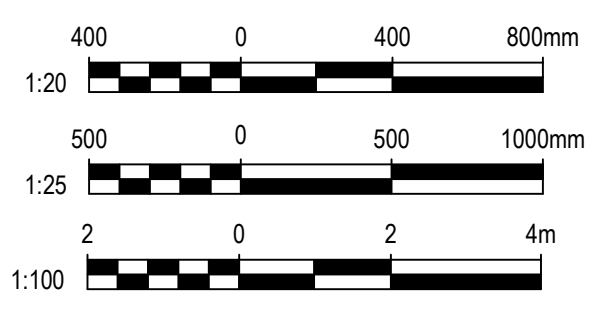
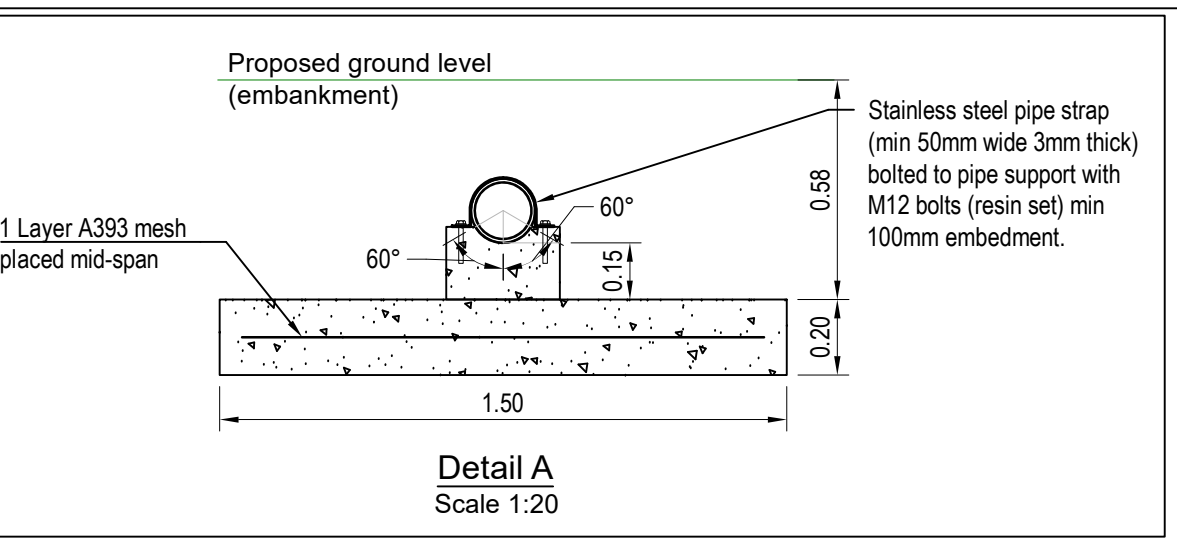
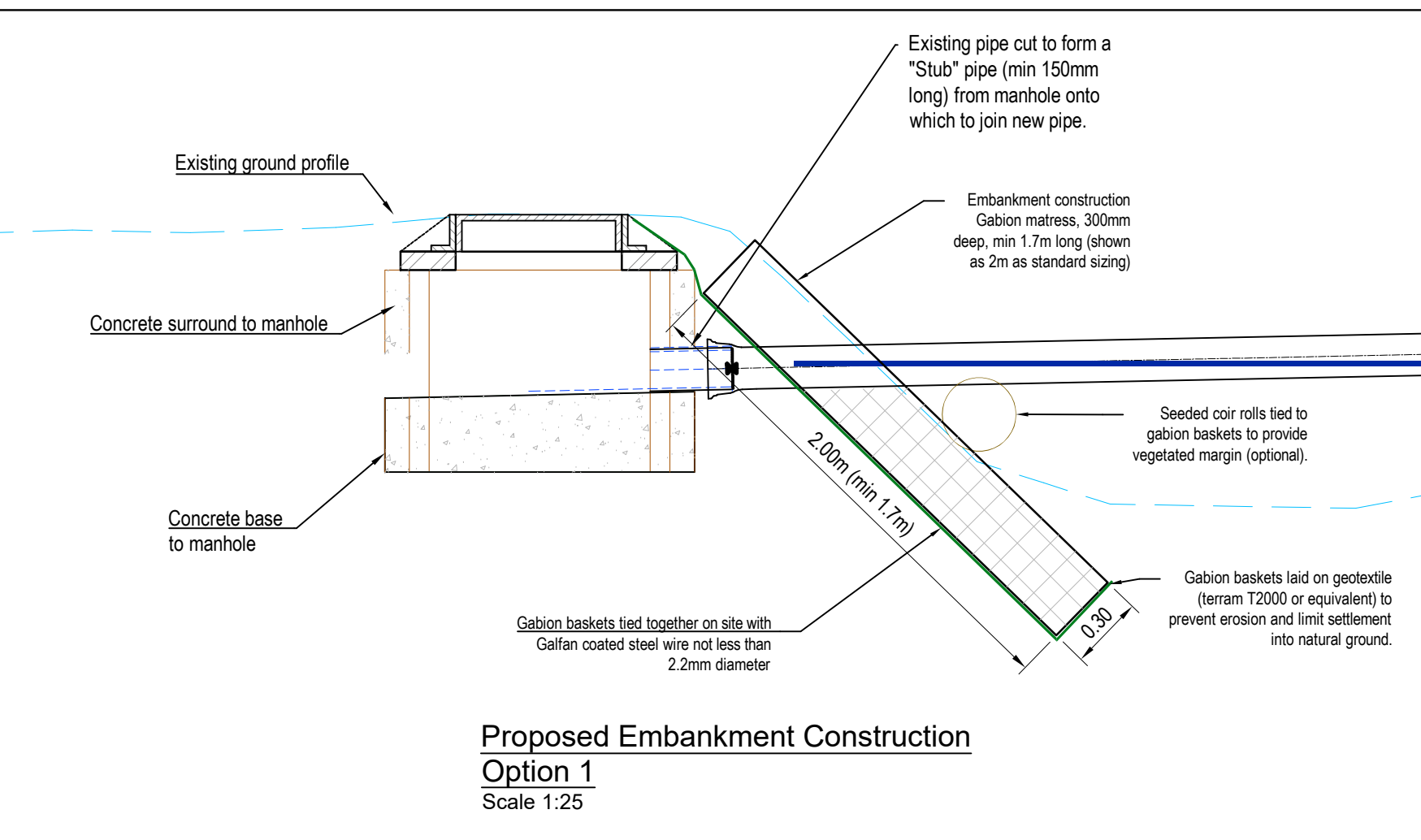
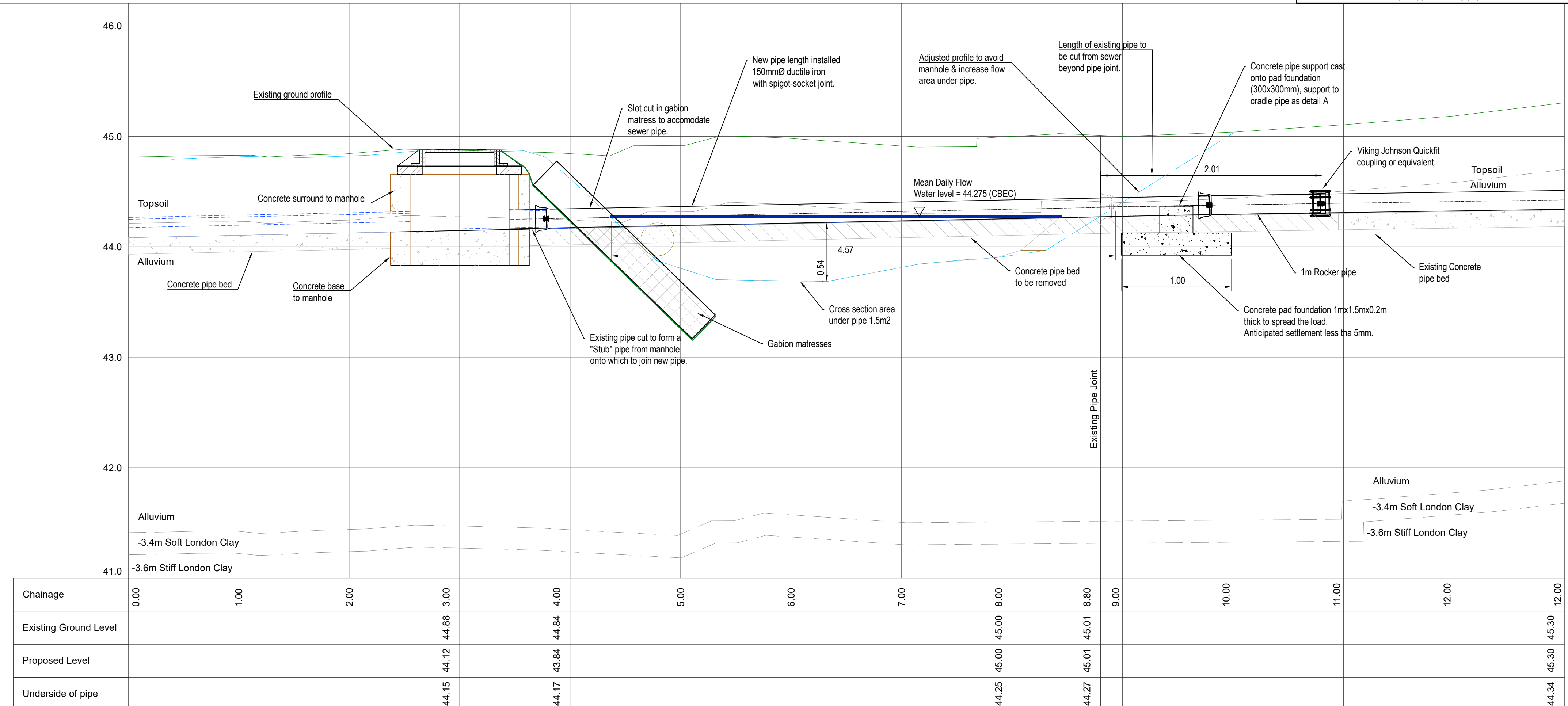
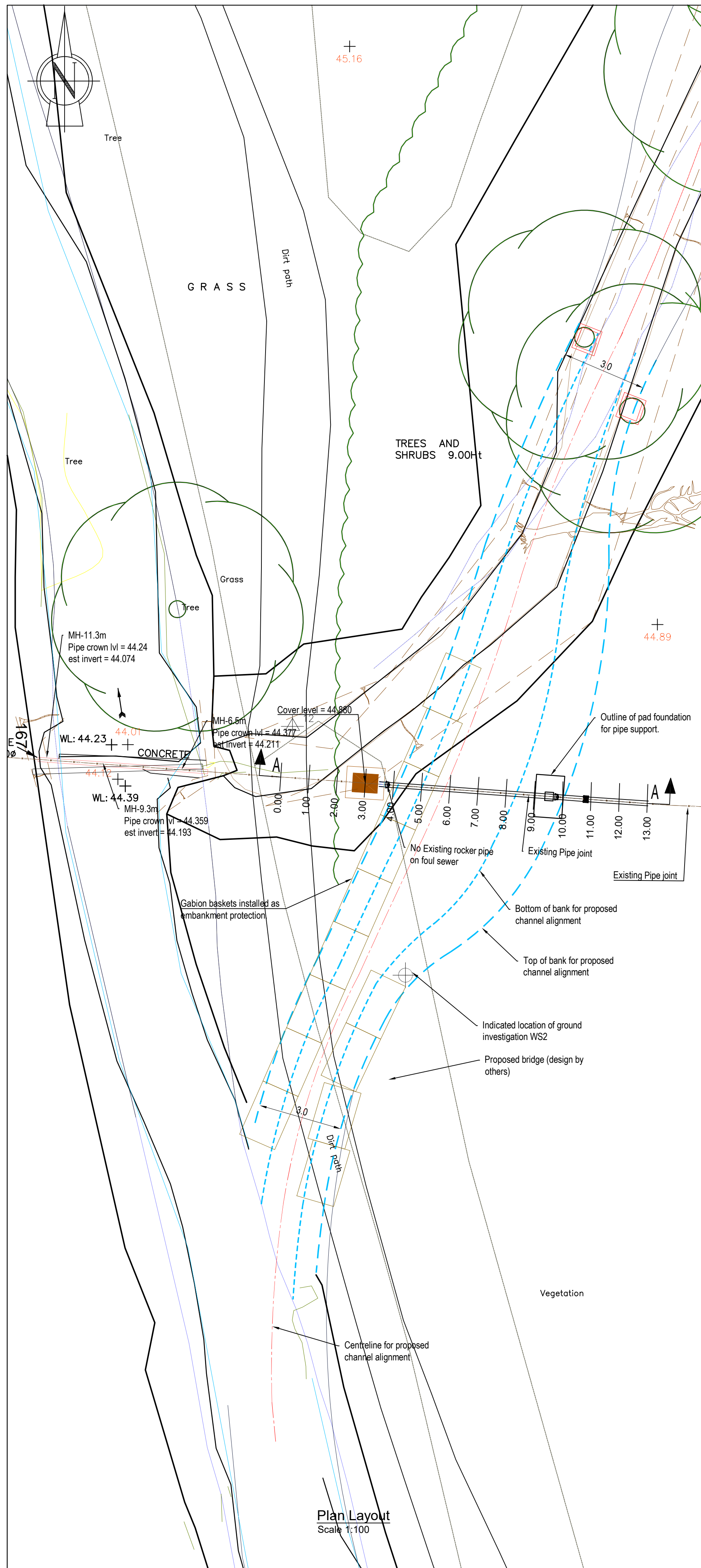
CLIENT
SOUTH EAST RIVERS TRUST

STATUS
INFORMATION

SCALE	DRAWN	CHECKED	APPROVED
1:250	AT A1	A.HUGHES	AMT
DRG SIZE	DRAWING NUMBER	REV	
A1	GHY-SERT-04-DWG-13	B	

APPENDIX B – LAYOUT PLAN

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- This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialists drawings together with the specification.
- All dimensions are in m. Levels are shown in m AOD
- Design of the proposed channel has been undertaken by CBEC. The details shown on these drawings are inferred from their designs, but should not be relied upon for construction purposes.
- Design of bridges has been undertaken by another consultant. The details shown on this drawings are inferred from their designs, but should not be relied upon for construction purposes.
- Ground information at this location has been based upon the investigations carried out by RSK in their report reference 1921661 R01(01) dated 29.06.2021, and specifically the window sampling hole WS2.
- The proposed arrangements contained within these drawings are for discussion purposes only and should not be used for construction.
- The design has been based upon the assumption that the existing manhole has settled to its full potential (has been in place for decades) and that the pipe runs are supported on concrete ground beams to reduce their relative settlement.
- The gabion baskets shall have hexagonal woven mesh with a maximum size of 8 cm x 8 cm, formed of steel wire min diameter 3mm, treated with Galvan or equivalent protection (to EN 10244.2).
- The gabion baskets shall be filled with a hard and durable angular stone 100-200mm in size (grading 6G) placed and lightly compacted to minimise the amount of voids present.
- Concrete for the pad foundation and pipe support shall be C35 mix or equivalent approved.

Safety Health and Environmental information	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:	
Construction	
S.1 - Access through public areas - conflict with members of public	
S.2 - Works within watercourse - flooding of works	
S.3 - High Ground water	
S.4 - Interface with foul sewer	
S.5 - Falls from height	
S.6 - Working next to watercourse - drowning & Weils disease	
Maintenance/Cleaning/Operation	
S.1 - Access through public areas - conflict with members of public	
S.2 - Works within watercourse - flooding of works	
S.3 - High Ground water	
S.4 - Interface with foul sewer	
S.6 - Working next to watercourse - drowning & Weils disease	
Decommissioning/Demolition	
S.1 - Access through public areas - conflict with members of public	
S.2 - Works within watercourse - flooding of works	
S.3 - High Ground water	
S.4 - Interface with foul sewer	
S.6 - Working next to watercourse - drowning & Weils disease	

B	GABIONS CHANGED TO SINGLE BASKET, NOTE ADDED TO CLARIFY CUT-OUT FOR SEWER	27-04-22
A	1ST ISSUE	25-04-22
REV	REVISION DETAILS	DATE

Ghyston Engineering Ltd
5 FURZE ROAD, FISHPONDS, BRISTOL, BS16 4HR
TEL : 0117 325 0745
email : Alex@GhystonEngineering.co.uk

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PROJECT TITLE
EMM BROOK
PIPE BRIDGE

DRAWING TITLE
PROPOSED ARRANGEMENT
OPTION 1
STANDARD PIPE LENGTH

CLIENT
SOUTH EAST RIVERS TRUST

STATUS
CONSTRUCTION

SCALE	DRAWN	CHECKED	APPROVED
AS SHOWN	AM HUGHES	AMT	AMH

DRG SIZE A1 **DRAWING NUMBER** GHY-SERT-04-DWG-11 **REV** B

APPENDIX C – THAMES WATER CORRESPONDENCE

Alex Hughes

From: DEVELOPER.SERVICES@THAMESWATER.CO.U
<DEVELOPER.SERVICES@THAMESWATER.CO.UK>
Sent: 31 March 2022 14:15
To: Alex Hughes
Subject: RE: RE: RE: Emm Brook Pipe Bridge Proposal. Red:DS6091513

Dear Alex,

Thank you for your email and I hope you are well. I looked over your design along with some colleagues. From the calculations, the settlement looks to be minor at 3.2mm. Your preferred solution to support the pipeline seems it may work. I can confirm this would be acceptable for Thames Water.

Warm regards,

Long Tran

Developer Services – Adoptions Engineer
Mobile: 0774 764 6498
Office: 0800 009 3921
developer.services@thameswater.co.uk
Clearwater Court, Vastern Road, Reading, RG1 8DB
Find us online at developers.thameswater.co.uk

Get advice on making your sewer connection correctly at connectright.org.uk



Original Text

From:
To: DEVELOPER.SERVICES@THAMESWATER.CO.U <DEVELOPER.SERVICES@THAMESWATER.CO.UK>
CC:
Sent: 24.03.22 14:38:28
Subject: RE: RE: Emm Brook Pipe Bridge Proposal. Red:DS6091513

Good Afternoon Long,

Having considered options for supporting the pipeline further and looking at the practicalities of excavating deep pits etc for the foundations where there is high ground water, we have been exploring the option of casting a high level slab / pad onto which the pipe can be supported in order to reduce the potential long

term settlement. We have undertaken calculations (as attached) to show that the anticipated settlement will be less than 5mm. This would be our preferred solution for to support the pipeline, please can you confirm whether it would be acceptable to Thames Water?

thanks

Kind regards

Alex Hughes
Beng Ceng MICE MCIWEM

Director



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From: DEVELOPER.SERVICES@THAMESWATER.CO.U <DEVELOPER.SERVICES@THAMESWATER.CO.UK>

Sent: 22 February 2022 10:23

To:

Cc:

Subject: RE: RE: Emm Brook Pipe Bridge Proposal. Red:DS6091513

Hello Alex,

Thanks for your email and no need to be sorry. I appreciate you working so diligently on this project. I can see how it is plausible for concrete to be poured under the pipe and not cast in shutters, so it must have reduced settlement in some way as you mentioned. Will this be your proposal or will the concrete supports be cast in shutters? The preference I think might be best would be cast in shutters unless you think otherwise. Please do let me know what you think.

Kind regards,

Long Tran

Developer Services – Adoptions Engineer

Mobile: 0774 764 6498

Office: 0800 009 3921

developer.services@thameswater.co.uk

Clearwater Court, Vastern Road, Reading, RG1 8DB

Find us online at developers.thameswater.co.uk

Get advice on making your sewer connection correctly at connectright.org.uk



Original Text

From:
To: DEVELOPER.SERVICES@THAMESWATER.CO.UK>
CC:
Sent: 16.02.22 07:43:51
Subject: RE: Emm Brook Pipe Bridge Proposal. Red:DS6091513

Long,

Sorry to send another email so quickly after the first, but I was considering the concrete supports again last night and have come to the same rationalisation which I hope you agree with:

Beams between the manholes seem unlikely due to the distance between manholes (40m and 80m). Also the concrete supports did not appear to be cast in shutters which would be expected for reinforced concrete structures. It is therefore supposed that the concrete was poured under the pipes to provide a wider footing and spread the load, therefore increasing the contact area of the pipes, which increases support to the pipes in the attempt to reduce settlement.

Kind regards

Alex Hughes
Beng Ceng MICE MCIWEM

Director



4HR

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From: Alex Hughes
Sent: 15 February 2022 16:53

Long,

Thank you for your response.

I note your comments in regards to preferring ductile iron pipe to a specially fabricated steel pipe section. The existing manhole adjacent to the proposed pipe bridge is an old square Brick style construction, approximately 450x600 internal dimension and some 0.73m deep (similar to sewers for adoption type "D" / or type 4 from 7th edition). I have attached a screenshot from the CCTV survey carried out on the sewer back in August 2020 by the client. I would note that there is no evidence of rocker pipes outside of the manhole chamber, infact, the chamber could have been formed around the pipe and the soffit of the pipe cut out?



We have ground investigation local to the pipe position, and my intention was to utilise the manhole as the pipe support on one side of the pipe span, and create a second pipe support on the other side with foundations extending to competent ground. As we do not have historic information on how this pipeline was designed for settlement, would you want me to design the interface with the existing pipe section as a beam support (i.e. tie it into the new foundation) or to consider the concrete under the pipe as a "spreader" foundation and therefore include a rocker pipe?

I have attached some work in progress drawings to demonstrate this principal for your consideration. Please note that the profile of the paleochannel has not been confirmed or the "free span" of the pipe (this is currently undergoing discussions with different parts of the design team) but please treat this as indicative of the support arrangements currently being considered for the pipework.

Kind regards

Alex Hughes
Beng Ceng MICE MCIWEM

Director



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From R.SERVICES@THAMESWATER.CO.UK>
Sent:
To: A
Subject: RE: EMM BROOK PIPE BRIDGE PROPOSAL. REF: D56091513

Hello Alex,

Thank you for your email. The input I will give you will be in red.

The concept for the diversion has already been established, that being an online diversion of the foul to create a single span pipe bridge across the channel, with concrete foundations / abutments at either side of the channel. I am currently drawing up initial options for this but would appreciate your input in two respects:

1. One of the options being considered is to use a fabricated steel pipe to cross the channel so that we are not restricted to the standard pipe lengths for ductile iron (6m) this may create a better solution for the river restoration scheme, but I would like Thames Water's input to the acceptability of this proposal. Are there maximum pipe lengths you would accept, and other than the British Standards (BS10224 & 10311) does Thames Water have any specific requirements to have such a proposal accepted?

Our preference would be to stay with ductile iron. The reason is because ductile would be more readily available compared to a specific fabricated steel. Just in case in the future, if there are remedial works that needed to be done, there wouldn't be a need or any delays to get the fabricated steel to do the work. As for the length, I understand the proposed upstream pipe will have an unsupported span of 4m. I have requested some information with our AM standards team so I will get back to you. At the moment, was thinking 7m span where the joints will be 1.5m from the unsupported section of the beam.

2. From initial trial pitting of the pipe to be diverted, it appears that the pipe was laid on a concrete bed. Please can you confirm if this was a design measure to prevent adverse settlement of the pipeline by forming beams between manholes. If this is the case, please can you confirm the dimensions and make-up of the beams (reinforcement etc) so that it can be incorporated within our design and also the design of the manholes which presumably would have needed to be piled or have their foundation extend to a specific depth. This query is largely informed by ground investigations of the area uncovering a depth of alluvium (associated with the old river bed etc) to a depth of ~3.5-4m.

Unfortunately, we don't have information on the original design of the concrete bed. A recommendation would be to do a ground investigation and design a concrete bed to prevent adverse settlement. Please provide calculations, that would be great. As for the manhole design, how are the existing manholes nearby? Would you know the type and depth? I reckon following guidance of Design and Construction Guidance page 20-21 Figure B 3.

Kind regards,

Long Tran

Developer Services – Adoptions Engineer

Mobile: 0774 764 6498

Office: 0800 009 3921

developer.services@thameswater.co.uk

Clearwater Court, Vastern Road, Reading, RG1 8DB

Find us online at developers.thameswater.co.uk

Get advice on making your sewer connection correctly at connectright.org.uk



Original Text

From: Alex Hughe _____
To: developer.services@thameswater.co.uk <developer.services@thameswater.co.uk>
CC:
Sent: 07.02.22 13:34:58
Subject: Emm Brook Pipe Bridge Proposal. Red:DS6091513

Good afternoon,

I am working with the South East Rivers Trust (SERT) in respect to the reinstatement of the paleochannel of the Emm Brook in Woosehill Meadows, Wokingham. Nick Hale of SERT contacted you / your department to begin the diversion process of a foul sewer at this location on 10th January 2022 (reference DS6091513). I have been appointed by them to design the "diversion" of this sewer to allow for the reinstatement of this watercourse along its original path in a more ecological form and setting.

The concept for the diversion has already been established, that being an online diversion of the foul to create a single span pipe bridge across the channel, with concrete foundations / abutments at either side of the channel. I am currently drawing up initial options for this but would appreciate your input in two respects:

- 1) One of the options being considered is to use a fabricated steel pipe to cross the channel so that we are not restricted to the standard pipe lengths for ductile iron (6m) this may create a better solution for the river restoration scheme, but I would like Thames Water's input to the acceptability of this proposal. Are there maximum pipe lengths you would accept, and other than the British Standards (BS10224 & 10311) does Thames Water have any specific requirements to have such a proposal accepted?
- 2) From initial trial pitting of the pipe to be diverted, it appears that the pipe was laid on a concrete bed. Please can you confirm if this was a design measure to prevent adverse settlement of the pipeline by forming beams between manholes. If this is the case, please can you confirm the dimensions and make-up of the beams (reinforcement etc) so that it can be incorporated within our design and also the design of the manholes which presumably would have needed to be piled or have their foundation extend to a specific depth. This query is largely informed by ground investigations of the area uncovering a depth of alluvium (associated with the old river bed etc) to a depth of ~3.5-4m.

Thank you in advance for your assistance.

Kind regards

Alex Hughes
Beng Ceng MICE MCIWEM

Director



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APPENDIX D – SETTLEMENT CALCULATIONS

calculation



Settlement estimate
 Author: RLPH
 Date 22/03/22

Project: EMM BROOK PIPE BRIDGE

References: RSK - Ground Investigations - 1921661 R01 (01) Emm Brook Factual Report

A 150mm sewer crosses Emm Brook. This is to be replaced with a new ductile iron crossing. This calculation provides an estimate of the possible long-term settlement of the new crossing. Soil profile is shown on next sheet.

Pipe bridge length		6.000 m, one pipe length
Pipe dimensions:	id=	150.000 mm
and weight	Mass/m	23.800 kg
	volume/m	0.018 m ³
	fluid density	1100.000 kg/m ³
	mass/m	19.439 kg of sewage

Therefore, total mass = 2.545 kN of 6m length

Concrete pad, lxb (m):	l=	0.50	b=	0.50
thickness, t (m)=		0.20		
concrete density =		25.00 kN/m ³		
pad weight =		1.250 kN		

And load on each pad formation =	2.523 kN	at base of organic silt
Therefore, formation pressure =	10.090 kN/m ²	
NET formation pressure increase, p =	6.890 kN/m ²	assumes pad buried

Soil profile assumed:

Depth, m	γ_b kN/m ³	m_v , m ² /MN	
GL			
organic silt, to be removed	16	n/a	
0.6			
Soft brown Clay	17	0.300	estimated
1.6			
soft blue clay	17	0.120	from RSK report
3			
London Clay			

nb. layer of gravel 1.6-1.9m ignored

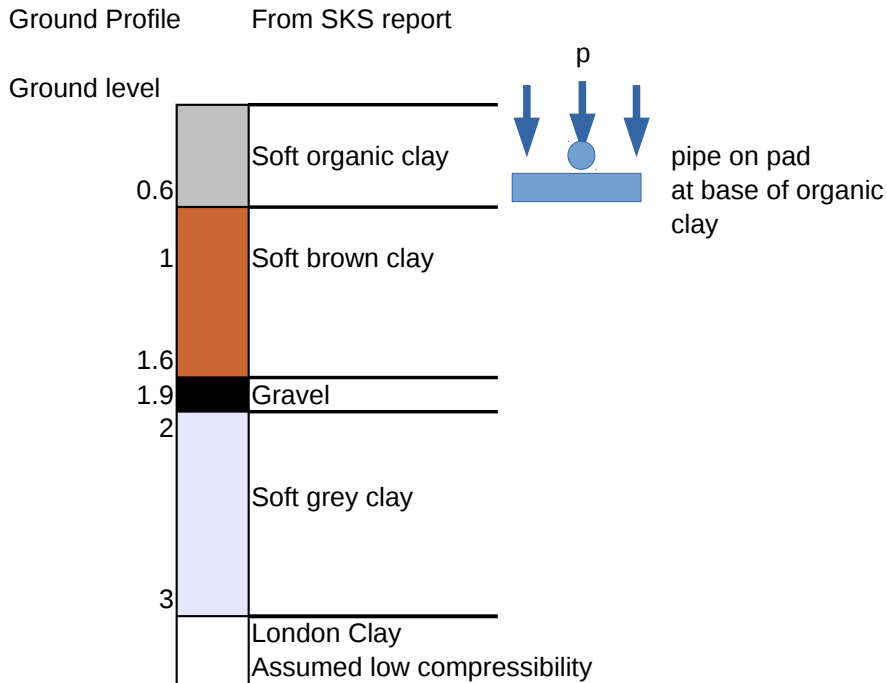
Settlement, $\delta = \text{Sum}(H \times p \times m_v)$ 3.2 mm
 where H = thickness of layer

This calculation overestimates settlement because

- no account taken of dissipation of load with depth and
- no reduction made for relatively low compressibility of gravel layer.

Soft spots may occur anywhere in alluvial soils and actual settlements can vary significantly.

Ground profile



p = Net bearing pressure = load from pipe and pad less the displaced soil load.

p would dissipate with depth. Calculation ignores this for simplicity and to allow for ground variability.

Brown clay assumed to be softer than grey clay. M_v (coefficient of volume compressibility) was measured in a sample of grey clay (value of $0.12\text{m}^2/\text{MN}$ determined) and typical value of $0.3\text{m}^2/\text{MN}$ assumed for soft alluvium in brown clay.

APPENDIX E – EMBANKMENT OPTIONS

EMBANKMENT OPTIONS

To: Nick Hale (South East Rivers Trust) Date: 6th April 2022
From: Alex Hughes Subject: Emm Brook Pipe Bridge

This note has been prepared in order to evaluate and present the options for embankment protection at Emm Brook, following on from our previous discussions on the subject.

1) Flex MSE

Description:

Flex MSE is a Geomodular building technology consisting of two components, the Flex MSE Bag and Interlocking Plate. These are assembled to create a soft solution that can vegetate finishing with a result similar to a natural embankment but reinforced and able to be constructed to a steeper slope.

<https://www.flexmse.com/>

Pros

Relatively cheap, simple installation with little training required, and does not require mechanical plant for installation. This solution can take an organic form / layout and results in a natural vegetated embankment. Stated design life of 120 years (life span of the UV stabilised synthetic bag).

Cons

Not as robust as other solutions and could be subject to vandalism (bags can feasibly be picked up and the wall de-constructed, or bags slit leading to loss of material and loss of support to embankment).

2) Concrete filled bags

Description:

Similar to the Flex MSE bag solution, this consists of individually placed bags filled with a dry mixed concrete, which will naturally absorb moisture from the surroundings & the atmosphere to set in its final location. These bags come in 2 forms, sealed – for use below the water line and unsealed for use elsewhere. The bags are placed and pierced with metal bars at given intervals to provide an interlock and in the case of the sealed bag, to rupture the seal and allow water ingress to set the concrete whilst preventing contamination to the wetland environment. The life span of the structure is then similar to other concrete structures.

<https://www.soluform.co.uk/concrete-filled-bagwork/>

Pros

More robust solution than Flex MSE bags, creating a system of set concrete units. These units will be heavier than the vegetated bags and less likely to be moved / vandalised. Can still form organic shapes, embankment gradients and can be placed by hand.

Cons

Will not vegetate and bags will rot away leaving exposed concrete finish (aesthetic consideration only). Although heavier than Flex MSE it is still conceivable that the bags could be moved after the scheme is finished (vandalism).

3) Rock Rolls

Description

Large net bags made from UV stabilised braided polyethylene filled with stone, used as an alternative to gabion baskets. These bags can be placed and fixed together to create semi organic shapes (sweeping curves).

<https://www.salixrw.com/product/rock-rolls/>

Pros

Robust solution, too heavy to be moved by hand (vandalism). Easy to construct on site and quick to form a structure. The rock material contained by the net accretes silt and fine particles such that over time it can develop a partially vegetated look and helps to stabilise the embankment long-term.

Cons

Heavy bags – would require mechanical plant to place them on site. The net container is made of Polypropylene twine which can be cut leading to loss of stone (vandalism). Would require additional materials (coir rolls) to provide a natural vegetated finish quickly.

4) Gabion Baskets

Description

Traditional stone filled galvanised steel baskets with a long service life (typically 50 years+)

<https://www.gabionbaskets.co.uk/>

Pros

Well established solution, very robust with little / no chance of vandalism affecting the installation.

Cons

Very heavy and typically wide may lead to settlement. Regular, square shape – will not easily conform to an organic shape / form on site. Will not vegetate over time, will require mechanical plant for placement. Likely to be a more costly solution.

5) Geotextile Embankment

Description

It is possible to create a reinforced embankment purely with the use of geotextiles ([Geoweb](#) + [Vmax](#) for example) however this would be a very soft solution and in my experience can be susceptible to being moved by hydraulic action. It is also not very robust when considering interaction with the public for the first season. However after the first season it is sufficiently vegetated to not longer be a target for vandalism and is also tied together to withstand most instances of hydraulic action. It would present a low cost solution but exposes the site to an increased degree of risk.

Pros

Low cost solution, very natural and self-reinforcing long term. Very flexible and light weight solution, no plant required and no additional skill-set required for installation.

Cons

Least robust solution, site exposed to risk of erosion and vandalism during establishment phase (typically 1st year). Has potential to move around long term, may not establish a suitable fixed hydraulic control for flow splits.

6) Concrete block revetment

Description

A system of pre-cast concrete blocks fixed together with wire to form a flexible mattress. The blocks typically have holes in them to allow vegetation to take root.

<http://www.armortec.co.uk/armorflex.htm>

Pros

Very robust, will allow a degree of vegetation, blocks are tied together such that they cannot be individually be moved (vandalism), will conform to site shapes / profiles. Low skill set required for installation.

Cons

Usually used in larger schemes, small quantities may be problematic. Will require mechanical plant for installation.

EMBANKMENT OPTIONS

	Solution	Appearance (vegetation etc)	Robustness	Susceptible to vandalism	Cost	Score
1	Flex MSE	5	2	1	4	12
2	Concrete filled bags	2	3	2	4	11
3	Rock Rolls	3	4	4	3	14
4	Gabion Baskets	1	5	5	1	12
5	Geotextile	5	1	1	5	12
6	Concrete block revetment	2	5	4	2	13

Note the above is scored based on 1 being least positive and 5 being most positive

Based on the above (no weighting to any category) Rock rolls would be the recommended solution.

Arboricultural Assessment & Method Statement

for proposed fish passage improvements at

Emm Brook
Woosehill
Wokingham



On Behalf of: **South East Rivers Trust**

Reference: **MW.21.0124.AIA**

Date Issued: **5 February 2021**

Revision E issued **23.05.2023**

Executive Summary

Trees are a consideration in this planning application. Therefore, this report has been drafted to provide the information required to enable the local planning authority to meet the duty placed upon them by section 197 of the Town and Country Planning Act (1990).

Included, to accompany the proposals for work to improve fish passage and overall biodiversity at Emm Brook in Woosehill, Wokingham, are:

- A BS5837:2012 compliant tree survey
- An arboricultural impact assessment
- A tree protection strategy including a method statement and protection plan

The tree protection strategy has been drafted to offer a realistic level of protection throughout this extensive project.

In terms of tree removals, the work to replace the existing footpaths with two bridge will require removal of two alder trees and a small hawthorn and the coppicing of one group of willows. Further removal of light and small understorey and brambles, will be required throughout the project area to allow access for the plant required to clear silt from the brook and in areas where they are especially dense, restricting light to the brook.

Hazel or chestnut faggots or proprietary track-matting will be used to provide ground protection where excavator passage or access is required close to trees to clear silt from the brook and to spread bank-side and in the surrounding wooded areas.

Use of tree protection barriers is limited to specific locations based on the proposed level of activity.

Provided the protection strategy is implemented as outlined in the following method statement, it is my opinion that this application is of low arboricultural impact, and thus acceptable.

Table of Contents

1. Instructions and Terms of Reference	3
2. Site Description	4
3. Statutory Legislation	4
4. Tree Survey-Scope and Methodology	5
5. Arboricultural Impact Assessment	6
<i>Existing Tree Stock</i>	6
<i>Tree Removals</i>	8
<i>Tree Surgery</i>	8
<i>Footbridge Replacement</i>	8
<i>Excavation To Reconnect the Brooks</i>	9
<i>Southern Pond</i>	9
<i>Silt Removal</i>	9
<i>Physical Tree Protection</i>	10
<i>Summary</i>	10
6. Arboricultural Method Statement	12
<i>Timing of Operations</i>	12
<i>Arboricultural Clerk of Works (ACoW)</i>	13
<i>Construction Exclusion Zone (CEZ)</i>	13
<i>Protection Barriers</i>	14
<i>Silt Removal, Spreading & Stream-Side Plant Access</i>	15
<i>Tree Surgery</i>	15
<i>Footbridge Replacement</i>	16
<i>Excavation To Rejoin Brooks</i>	16
<i>Limitations of Use and Copyright.</i>	17

Appendices

I. Tree Categories Explained	19
II. Protection Plan	20

1. Instructions and Terms of Reference

- 1.1. In January 2021, I was instructed by Mr Nick Hale on behalf of the South East Rivers Trust to undertake a tree survey and subsequently to produce this report to accompany a planning application for the installation of two footbridges and associated works to reconnect the historic route of the Emm Brook through Riverside Park, Wokingham. Further work is proposed by Wokingham Borough Council under the Greenways program. **This does not fall within the remit of this report and associated application.**
- 1.2. **This revision (E) has been drafted to include details for trees #43 & 44.**
- 1.3. Following the recommendations of the British Standard¹, this report includes the necessary information to enable the local planning authority to meet the duty placed upon them by section 197 of the Town and Country Planning Act (1990).
- 1.4. It demonstrates that the impact, both direct and indirect, of the proposal, has been assessed and where appropriate, mitigation, compensation and tree protection proposed.
- 1.5. Correct implementation of the tree protection specified within this report is critical for ensuring the retained trees are successfully protected throughout the construction process.
- 1.6. Documents supplied to assist this assessment included:
 - Overview plan: Emm Brook - Design - 01 - OVERVIEW.pdf
 - AutoCAD design: Emm Brook - DESIGN Conditions - Dec2020 - cbec.dwg
- 1.7. The assessment considers the impact of the proposal on the constraint presented by trees retained within the site, and those on adjacent land. Such impact can be caused directly through construction damage and indirectly from post-development resentment and pressure to detrimentally prune or remove the trees. The latter is often due to a poor juxtaposition between the proposal and the trees.
- 1.8. The root protection area (RPA) for each tree represents a minimum area in m² that should be left undisturbed around each retained tree. This is initially represented by a circle but is fundamentally an area of rooting volume. This is often adjusted to account for constraints to root growth within the site (primarily highways and buildings). Recommendations are provided in the British Standard as to the protection of existing trees during the construction process. This is achieved by ensuring a tree protection strategy is implemented before any demolition or construction on site.

¹BS5837:2012 Trees in relation to design, demolition and construction

2. Site Description

- 2.1. The project focuses on the section of Emm Brook that flows through Riverside Park.
- 2.2. The Emm Brook is a tributary of the River Loddon, a chalk-fed river which rises at Basingstoke and flows northeasterly over chalk and clay, joining the River Thames just west of Wargrave.
- 2.3. It is predominantly flat in nature.
- 2.4. The site is centred at Ordnance Survey Grid Reference: SU 79908 69041.



Approximate project area ©Google

3. Statutory Legislation

- 3.1. According to Wokingham Borough Council's on-line service², there are no tree preservation orders on the site (checked at the date of writing), nor is the site within a conservation area.
- 3.2. Any large scale tree removals, that occur outside of a full planning consent, could potentially require a felling licence from the Forestry Commission.

² <https://wokingham.maps.arcgis.com>

- 3.3. Certain habitats and species are protected, many of which can be impacted by tree work. Advice from an ecologist on the impact of such work should be sought, with reference to the relevant statutory protection^{3 4}.

4. Tree Survey-Scope and Methodology

- 4.1. Tree survey data can be found on the appended plan.
- 4.2. The tree survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.
- 4.3. The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. Stem locations on this project are often estimated.
- 4.4. The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the Visual Tree Assessment⁵ (VTA) method.
- 4.5. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.
- 4.6. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- 4.7. Tree heights were measured with a clinometer or estimated in relation to those measured.
- 4.8. Trunk diameters are measured at 1.5m above ground level, where this is not possible, then Figure C.1 of the British Standard is followed.
- 4.9. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).
- 4.10. All estimated dimensions are noted in the data.

³ *Wildlife and Countryside Act. (1981)* London: HMSO.

⁴ *Countryside and Rights of Way Act. (2000)* London: HMSO.

⁵ Mattheck, C. & Breloer, H., 1998. *The Body Language of Trees: A Handbook for Failure Analysis*.

5. Arboricultural Impact Assessment

- 5.1. Emm Brook through Riverside Park has issues which impact its health and prevents it from being able to support a rich community of wildlife.
- 5.2. It is proposed to carry out work to improve the flow of water along the length of the original brook and to reconnect it with the newer channel. Downstream of new channel reconnection, the existing river will be a flood relief channel.
- 5.3. One of the two existing footpaths (currently culverted) over the brook will be replaced with a wooden footbridge (SERT Northern Bridge NGR: SU 79936 69101). A second bridge (SERT Southern Bridge NGR: SU 79891 69012) will span the new channel cut that will reconnect the existing main channel with it's former route.
- 5.4. The entire length of the former brook will be cleared of silt, with the arisings spread on the bank and in the adjacent wooded areas.
- 5.5. Although the proposals are included on the appended plan, the focus is on tree protection. More detailed information can be found on the [project website](#).

Existing Tree Stock

- 5.6. The park is well treed, with several large mature oak trees (*Quercus robur*), many riverside alder (*Alnus glutinosa*) and a mixture of smaller understorey and scrub of varying quality, including elm regeneration.



Oak tree #09 to right. Aspect north



Example of the poorer quality trees in the northern area



An example of the scrub next to the brook that will be removed to allow plant access for silt removal

- 5.7. The more densely wooded patch to the north is becoming heavily ivy clad and has numerous small trees and seedlings. The mature trees within the group are of mixed quality with few of high individual arboricultural value.
- 5.8. Overall, the tree stock has undergone little management over the years. With the alder becoming somewhat over-mature resulting in decline of some groups and trees.

- 5.9. There are patches of elm and poplar seedlings that are becoming established. The poplar will likely be successful and may out-compete more preferable species, whilst the elm is already showing decline from the ubiquitous Dutch Elm Disease (*Ophiostoma spp.*).

Tree Removals

- 5.10. The work to replace the existing footpath will require the removal of 3No. Alder (#10, 11 & 13) and a small hawthorn (#12).
- 5.11. Alder #44 will require removal to reconnect the channel, including grinding the root out.
- 5.12. None of the above trees are of exceptional quality and value. The two alder are of typical multi-stemmed form, which are likely to fail in due course. This is typical when such trees become mature/over-mature. The hawthorn is small, suppressed and ivy-clad.
- 5.13. It is also proposed to carry out strategic removal of some understorey and more scrubby trees in areas where they are especially dense, and restricting light to the brook. These removals are not shown in detail as decisions will be made regarding which plants are removed as work progresses. If deemed necessary by the local planning authority, more detail on these removals could be supplied under an appropriately worded planning condition.
- 5.14. Further removal of light and small understorey, including the somewhat dense brambles, will be required throughout the project area to allow access for the plant required to clear silt from the brook.

Tree Surgery

- 5.15. There is a group of willow trees (#02, 03, 04 & 05) growing to the south of the project area that are becoming over-mature and thus prone to structural failure. As they overhang the existing informal path and are at the point where the brooks will be joined and the second footbridge constructed, it is proposed to coppice them at ground level. Allowing for natural regrowth to occur.
- 5.16. At this time no further tree surgery is detailed. However, in conjunction with the scrub and small tree removals for improvement of light to the brook and the silt removal operation, some low branches may be pruned to facilitate access.

Footbridge Replacement

- 5.17. Currently, there are asphalt paths with a culvert allowing water underneath in two locations. To improve the flow of water these are to be replaced with wooden bridges. One as part of this application and one by Wokingham Borough Council under the Greenways program.

5.18. The removal of trees is required (see above) along with a sensitive working approach to minimise impact on surrounding trees and vegetation. This is detailed in the method statement section of this document. Provided this is adhered to, the works will have very limited impact and, in my opinion, are entirely acceptable.

Excavation To Reconnect the Brooks

5.19. Work to reconnect the former brook with the main flow is proposed at the southern end of the project area. This is labelled 'Protection Area 3' on the tree protection plan.

5.20. Once the willow group is coppiced and barriers erected as shown, the works can occur from outside the RPAs of retained trees (the willows' RPAs would be reduced from those shown due to the coppice work and associated reduction in required root mass).

5.21. To southern bridge will require excavation within the circular RPAs of the willows. However, once copied, the required rootmass will be significantly reduced and considering this species' inherently robust nature, will not result in any long-term impact on their regeneration.

Southern Pond

5.22. To the south of the main work area a new pond is proposed. It can be seen on the appended tree protection plan (top left inset) and occurs outside the RPAs of the retained trees.



Southern pond area

Silt Removal

5.23. The entire length of the former brook is very congested with silt accumulation. This must be removed for the project to be viable.

- 5.24. The work to complete this will require an excavator which will track into the bank remove the silt. In a few areas, it will be necessary to carry out the work by hand due to access restrictions from trees and the existing topography.
- 5.25. Use of excavator plant near trees can result in root damage and topsoil disruption. This usually results from the turning and manoeuvring of the excavator, not straight-line tracking. In fact, the approximate ground pressure of a small (3 tonne) excavator is less than that of an average human (30kPa and 110kPa respectively).
- 5.26. Given the dynamic nature of this work (the exact routes and working areas will only become clear once work starts), a somewhat generic approach to tree protection is proposed.
- 5.27. The arising silt will be spread amongst the wooded areas and on the bank where appropriate. The depth of this will be kept to a minimum to avoid detriment to not only tree roots, but any underlying flora. This also avoids costly off-site removals, reducing carbon emissions from vehicle movements, and retains the nutrient-rich silt to aid future tree and plant growth.
- 5.28. Where work is within wooded areas, or in the RPAs of noted trees, ground protection will be used. But, the tracking back and forwards to the work zone will occur without any ground protection. This will suffice in providing an appropriate level of protection in the areas where it is most required. The specification of the ground protection will be suited to the size of the excavator used (still to be confirmed).
- 5.29. As outlined above, strategic removal of scrub, small trees and low branches will be required. This will be minimised where possible.

Physical Tree Protection

- 5.30. To minis cost, and provide a realistic level of protection whilst keeping the park open and accessible to the public tree protection barriers are restricted to areas of intensive work and areas where impact has potential to occur. At this stage, this is proposed in the southern area where the reconnection is to occur, around the ash (#14) by the proposed compound and storage area and the southern footbridge area.
- 5.31. If deemed necessary by the local planning authority, more extensive barriers could be provided under an appropriately worded planning condition.

Summary

- 5.32. In summary, the trees (and scrub) required for removal are of general low arboricultural quality and value with the most notable being the two alder for the footbridge work.

- 5.33. Any loss that may be felt as a result tree removal will be more than compensated for by the overall biodiversity net gain that the whole project will deliver.
- 5.34. Provided the tree protection strategy is implemented as outlined in the following method statement, it is my opinion that this application is of **low** arboricultural impact, and thus acceptable.
- 5.35. Should the council wish to see more onerous tree protection methods, this can be ensured via an appropriately worded planning condition and should not be the basis for a reason for refusal.

6. Arboricultural Method Statement

- 6.1. The tree protection on this site is subject to implementation as detailed in the following sections.
- 6.2. The recommendations of the British Standard have been applied where viable. Where deviations from the preferred approach are required, impact on any retained trees is minimised through a combination of supervision from an Arboricultural Clerk of Works and adherence to the associated method statement.
- 6.3. It is imperative that this strategy is followed to avoid not only impact upon the trees but to adhere to any planning conditions, should consent be granted.
- 6.4. The information within this section must be passed to the site foreman and cascaded to all relevant personnel involved in the project.
- 6.5. Any questions about the content or its implementation should be directed to **Mark Welby on 01730 239 492**, before action is taken.
- 6.6. A plan showing the types of tree protection and their locations is appended. It includes the tree survey data, existing site features along with the proposed construction, drainage, changes in level and other factors that could impact trees.
- 6.7. The plan must be read in conjunction with this method statement.

Timing of Operations

- 6.8. It is essential that the following phasing is followed if trees are to be effectively protected throughout construction.

1	Tree removals/surgery (potentially ongoing as work necessitates)
2	Installation of protection barriers
3	Silt clearance and spreading (using ground protection where necessary)
4	Excavation to reconnect the former brook with main channel & southern bridge construction
5	Footbridge replacement
6	Removal of barriers after all external construction work has been completed
7	Soft landscaping (if required)

Table 1: Proposed Timing of Operations (subject to change as dictated by operational requirements)

6.9. The above has been drafted at the planning stage. Should any of the protection measures prove incompatible with elements of the program, please call 01730 239492 to discuss options.

Arboricultural Clerk of Works (ACoW)

6.10. Where works have the potential to impact retained trees, supervision may be specified within the method statement.

6.11. This is typically the project arboriculturist, who will document the process and provide an auditable record of the operation.

6.12. See subsections for requirements.

Construction Exclusion Zone (CEZ)

6.13. The CEZ is a root sensitive area where construction activities are to be excluded. The default method of doing so is through the installation of tree protection barriers. If construction access is required in the CEZ then ground protection can be used to facilitate this.

6.14. It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

6.15. Inside the exclusion zone, the following shall apply:

- No mechanical excavation whatsoever;
- No excavation by any other means without arboricultural site supervision;
- No hand digging without a written method statement having first been approved by the project arboriculturist;
- No lowering of levels for any purpose (except removal of grass sward using hand tools);
- No storage of plant or materials;
- No storage or handling of any chemical including cement washings;
- No vehicular access (unless ground protection is installed);
- No fire lighting.

6.15. In addition to the above, further precautions are necessary adjacent to trees:

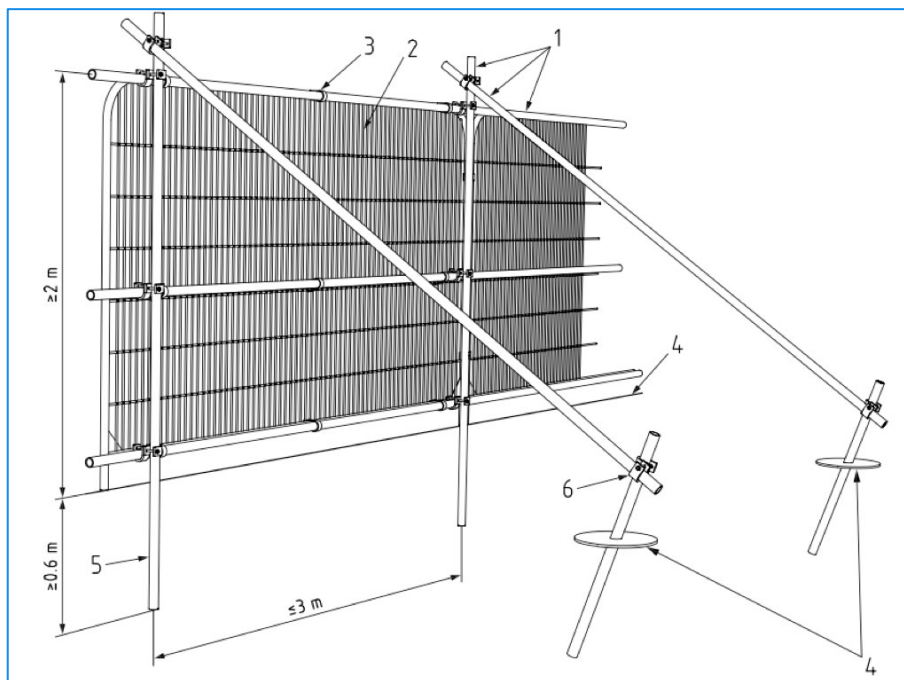
- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees;
- No fire shall be lit such that flames come within 5m of tree foliage.

6.16. Variation from the above may be specified in the following sections of this method statement.

This is only acceptable where detailed and will typically be subject to supervision by the ACoW.

Protection Barriers

- 6.17. Barriers must be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.
- 6.18. The default specification comprises a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.
- 6.19. Alternative specifications may be viable, subject to approval from the project arboriculturist.



Default specification for protective barrier (Fig 2 from BS5837:2012)

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanised tube and welded mesh infill panels
- 3 panels secured to up rights and cross members with wire-ties
- 4 ground level
- 5 uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps

Silt Removal, Spreading & Stream-Side Plant Access

- 6.20. The clearance of silt within the former brook and its spreading on the bank and in the wooded areas will be carried out with an excavator. To minimise impact on underlying roots and soil, ground protection will be when working in the wooded areas or within RPAs of retained trees.
- 6.21. Typically a trackmat type protection is used, over wood chip to provide root protection and avoid compaction. However, when used in wet areas and on potentially unstable river banks, this can become slippery and unstable, resulting in injury and accidents. To minimise risk, an alternative method is required.
- 6.22. Hazel or chestnut faggots will be laid down under the excavator plant where intense activity is to occur (for silt excavation and spreading). This not only provides a stable work platform, but can be left in situ for biodiversity gains, as it decays post-project. It must be ensured that any faggots used are tied with natural fibres.
- 6.23. In some areas proprietary track-mat style ground protection may be used.
- 6.24. It is not necessary to use protection where the plant is tracking in a straight line and movements are limited.
- 6.25. The locations where ground protection is to be used will be determined by the project manager in conjunction with the project arboriculturist as work progresses.

Tree Surgery

- 6.26. Tree surgery work is listed in the schedule on the appended plan, along with all trees to be removed.
- 6.27. All work will be carried out in accordance with BS3998⁶ industry best practice and in line with any works already agreed with the council.
- 6.28. The statutory protection⁷ ⁸ will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.
- 6.29. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.
- 6.30. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

⁶ BS3998:2010- *Recommendations for Tree Work*. London: British Standards Institute

⁷ *Wildlife and Countryside Act. (1981)* London: HMSO.

⁸ *Countryside and Rights of Way Act. (2000)* London: HMSO.

Footbridge Replacement

- 6.31. All barriers to be installed as per tree protection plan prior to commencement.
- 6.32. As the bridge footing designs are still at the concept stage, a detailed design and method statement must be approved before commencement on this element. This can be secured by an appropriately worded planning condition.

Excavation To Rejoin Brooks

- 6.33. Willows to be coppiced before work starts.
- 6.34. Ensure protection barriers and ground protection is installed, blocking off the informal path during works and protecting the oaks, alder and willows.
- 6.35. Excavation is now outside the RPAs of retained trees and may proceed as required.

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Appendices

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I.

Tree Categories Explained

BS5837:2012 Table 1 -Cascade chart for tree quality assessment			
Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
<p>Category U</p> <p>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p>	<p>*Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</p> <p>*Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</p> <p>*Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</p> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
<p>Category A</p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
<p>Category B</p> <p>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
<p>Category C</p> <p>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm</p>	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

II.

Protection Plan

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Trees for Removal or Retention			
Ref	Species	Common Name	Category
01	Quercus robur	Pedunculate Oak	B2
02	Salis fragilis	Crack Willow	B2
03	Salis fragilis	Crack Willow	B2
04	Salis fragilis	Crack Willow	B2
05	Salis fragilis	Crack Willow	B2
06	Alnus glutinosa	Common Alder	B2
07	Salis fragilis	Crack Willow	C1
08	Quercus robur	Pedunculate Oak	A3
09	Alnus glutinosa	Common Alder	B2
14	Fraxinus excelsior	Common Ash	B1
15	Alnus glutinosa	Common Alder	B2
16	Alnus glutinosa	Common Alder	B2
17	Quercus robur	Pedunculate Oak	C1
18	Alnus glutinosa	Common Alder	U
19	Quercus robur	Pedunculate Oak	A3
20	Fraxinus excelsior	Common Ash	B1
21	Alnus glutinosa	Common Alder	C2
23	Alnus glutinosa	Common Alder	B1
24	Quercus robur	Pedunculate Oak	B1
25	Salis fragilis	Crack Willow	C1
26	Salis fragilis	Crack Willow	C1
27	Alnus glutinosa	Common Alder	B1
28	Ulmus sp.	Elm	U
29	Fraxinus excelsior	Common Ash	U
30	Mixed species	Mixed species	A2
31	Salis fragilis	Crack Willow	C1
32	Alnus glutinosa	Common Alder	A1
33	Quercus robur	Pedunculate Oak	A1
34	Fraxinus excelsior	Ash	C2
36	Fraxinus excelsior	Ash	C2
37	Fraxinus excelsior	Ash	C2
38	Quercus robur	Red Oak	B2
39	Quercus robur	Red Oak	B2
40	Fraxinus excelsior	Ash	C2
41	Fraxinus excelsior	Ash	C2
42	Quercus robur	Common Oak	B2
43	Quercus robur	Pedunculate Oak	C1

Survived Trees

Ref	Species	Common Name	Height	Stem Diameter	Canopy Density	Green Observed	Age Class	Observation	Est. Remaining	Date Surveyed	BS Code
01	Quercus robur	Pedunculate Oak	22m	100mm	11 N 14 E 12 S 14 W	7m	Mature	Negative detection and detest.	20 Years	3/20/21	B2
02	Salis fragilis	Crack Willow	15m	100mm	10 N 10 E 10 S 10 W	2m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	20 Years	3/20/21	B2
03	Salis fragilis	Crack Willow	15m	100mm	10 N 10 E 10 S 10 W	2m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	20 Years	3/20/21	B2
04	Salis fragilis	Crack Willow	15m	100mm	7 N 7 E 7 S 7 W	5m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	20 Years	3/20/21	B2
05	Salis fragilis	Crack Willow	15m	100mm	5 N 5 E 5 S 5 W	3m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	20 Years	3/20/21	B2
06	Alnus glutinosa	Common Alder	13m	100mm	7 N 7 E 7 S 7 W	2m	Mature	Typical multi-stemmed stream-side form.	20 Years	3/20/21	B2
07	Salis fragilis	Crack Willow	20m	100mm	4 N 10 E 10 S 10 W	1m	Mature	Fair overall Physiological and Structural condition. On the site of bank, limited long term value.	10 Years	3/20/21	C1
08	Quercus robur	Pedunculate Oak	19m	100mm	13 N 13 E 13 S 13 W	1m	Mature	Good overall Physiological and Structural condition. Best early with the damage.	40 Years	3/20/21	A3
09	Alnus glutinosa	Common Alder	16m	100mm		2m	Mature	Shore side group, most with multi-stemmed form. Varying conditions - standing dead branches, some with dead stems, other with dense branches. Value reflects tree quality which is low.	40 Years	3/20/21	B2
10	Alnus glutinosa	Common Alder	16m	100mm	6 N 6 E 6 S 6 W	2m	Mature	Typical multi-stemmed stream-side form.	20 Years	3/20/21	B2
11	Alnus glutinosa	Common Alder	16m	100mm	7 N 7 E 7 S 7 W	2m	Mature	Typical multi-stemmed stream-side form.	20 Years	3/20/21	B2
12	Crataegus monogyna	Common Hawthorn	6m	200mm	3 N 3 E 3 S 3 W	1m	Mature	Heavily by dead.	10 Years	3/20/21	C1
13	Alnus glutinosa	Common Alder	16m	100mm	3 N 3 E 3 S 3 W	2m	Mature	Three stems. Two seem to meet. Fair overall Physiological and Structural condition. by on corner aspect.	20 Years	3/20/21	B2
14	Fraxinus excelsior	Common Ash	12m	100mm	7 N 7 E 7 S 7 W	2m	Mature	Group of stems side trees, 19y becoming dormant.	20 Years	3/20/21	B1
15	Alnus glutinosa	Common Alder	15m	100mm	4 N 4 E 4 S 4 W	2m	Mature	Group of stems side trees, 19y becoming dormant.	20 Years	3/20/21	B2
16	Alnus glutinosa	Common Alder	6m	100mm	4 N 4 E 4 S 4 W	2m	Mature	Group of stems side trees, 19y becoming dormant.	20 Years	3/20/21	B2
17	Quercus robur	Pedunculate Oak	4m	200mm	3 N 3 E 3 S 3 W	1m	Semi-Mature	Fair overall Physiological and Structural condition.	10 Years	3/20/21	C1
18	Alnus glutinosa	Common Alder	17m	100mm	5 N 5 E 5 S 5 W	2m	Mature	Group of stems side trees, 19y becoming dormant.	0 Years	3/20/21	U
19	Quercus robur	Pedunculate Oak	15m	100mm	10 N 10 E 10 S 10 W	2m	Mature	Group of stems side trees, 19y becoming dormant.	40 Years	3/20/21	A3
20	Fraxinus excelsior	Common Ash	10m	100mm	5 N 5 E 5 S 5 W	2m	Mature	Fair overall Physiological and Structural condition.	10 Years	3/20/21	B1
21	Alnus glutinosa	Common Alder	17m	100mm	3 N 3 E 3 S 3 W	2m	Mature	Group of stems side trees, 19y becoming dormant.	10 Years	3/20/21	C2
22	Salis fragilis	Crack Willow	5m	100mm	3 N 3 E 3 S 3 W	1m	Semi-Mature	Small multi-stemmed.	10 Years	3/20/21	C1
23	Alnus glutinosa	Common Alder	15m	100mm	5 N 5 E 5 S 5 W	1m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	20 Years	3/20/21	B1
24	Quercus robur	Pedunculate Oak	15m	100mm	5 N 5 E 5 S 5 W	1m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	20 Years	3/20/21	B1
25	Salis fragilis	Crack Willow	15m	100mm	6 N 6 E 6 S 6 W	1m	Mature	Fair overall Physiological and Structural condition.	20 Years	3/20/21	B2
26	Salis fragilis	Crack Willow	11m	100mm	1 N 1 E 1 S 1 W	2m	Mature	Partially retained. Suppressed.	10 Years	3/20/21	C1
27	Alnus glutinosa	Common Alder	17m	100mm	8 N 8 E 8 S 8 W	1m	Mature	Fair overall Physiological and Structural condition. Typical multi-stemmed form.	20 Years	3/20/21	B1
28	Ulmus sp.	Elm	5m	100mm		1m	Semi-Mature	Water level too low. Regeneration will be limited. Tree is dead with rot on some stems.	10 Years	3/20/21	U
29	Fraxinus excelsior	Common Ash	16m	100mm	4 N 10 E 10 S 10 W	2m	Mature	Stems side trees and detached.	0 Years	3/20/21	U
30	Mixed species	Mixed species	10m	100mm	4 N 10 E 10 S 10 W	1m	Mature	Wooded comprising oak, ash, pine, alder, birch, hazel.	40 Years	3/20/21	A2
31	Salis fragilis	Crack Willow	7m	100mm	5 N 7 E 5 S 7 W	3m	Mature	Fair overall Physiological and Structural condition. Specie has limited long term value.	10 Years	3/20/21	C1
32	Alnus glutinosa	Common Alder	16m	100mm	9 N 7 E 4 S 7 W	3m	Mature	Good overall Physiological and Structural condition. Grouping on site.	40 Years	3/20/21	A1
33	Quercus robur	Pedunculate Oak	15m	100mm	8 N 8 E 8 S 8 W	2m	Mature	Good overall Physiological and Structural condition. Typical multi-stemmed form.	40 Years	3/20/21	A1
34	Quercus robur	Common Oak	10m	100mm	2 E 5 S 4 W	1m	EM	Stem 1m from bank. Fracture of stem and one side canopy, 19y on stem.	40 Years	7/20/22	C2
35	Fraxinus excelsior	Ash	17m	100mm	8 N 8 E 8 S 8 W	1m	M	2m from bank. Fracture of stem and one side canopy, 19y on stem.	10 Years	7/20/22	C2
36	Fraxinus excelsior	Ash	17m	100mm	7 N 7 E 7 S 7 W	1m	M	Tree not in best time of survey. Top of tree not visible. However anticipated limited life expectancy due to probable Ash dieback.	10 Years	7/20/22	C2
37	Fraxinus excelsior	Ash	14m	100mm	4 N 4 E 4 S 4 W	1m	EM	Tree not in best time of survey. Top of tree not visible. However anticipated limited life expectancy due to probable Ash dieback.	10 Years	7/20/22	C2
38	Quercus robur	Red Oak	13m	100mm	7 N 7 E 7 S 7 W	1m	EM	Tree not in best time of survey. Top of tree not visible. However anticipated limited life expectancy due to probable Ash dieback.	40 Years	7/20/22	B2
39	Quercus robur	Red Oak	13m	200mm	4 N 4 E 4 S 4 W	1m	EM	Stem position not on top. 12m South of C1. Grouping to have been removed south possibly square canopy. 19y. 19m of branch removed in 2020/21.	40 Years	7/20/22	B2
40	Fraxinus excelsior	Ash	17m	100mm	5 N 5 E 5 S 5 S 5 W	1m	M	Stem position not on top. 12m South of C1. Grouping to have been removed south possibly square canopy. 19y. 19m of branch removed in 2020/21.	10 Years	7/20/22	C2
41	Fraxinus excelsior	Ash	17m	100mm	7 N 7 E 7 S 7 S 5 W	1m	M	Stem position not on top. 12m South of C1. Grouping to have been removed south possibly square canopy. 19y. 19m of branch removed in 2020/21.	10 Years	7/20/22	C2
42	Quercus robur	Common Oak	5m	150mm	3 N 3 E 3 S 3 W	3m	SM	Stem not on top. 12m South of C1. Grouping to have been removed south possibly square canopy. 19y. 19m of branch removed in 2020/21.	40 Years	7/20/22	B2
43	Quercus robur	Pedunculate Oak	4m	300mm	3 N 3 E 3 S 3 W	2m	Semi-Mature	Fair overall Physiological and Structural condition. Grouping on site.	10 Years	3/20/21	C1
44	Alnus glutinosa	Common Alder	15m	100mm	4 N 4 E 4 S 4 W	2m	Mature	Stem side trees.	20 Years	3/20/21	B2

Tree Work Schedule			
Ref	Species	Common Name	Category
01	Salis fragilis	Crack Willow	Copeck
02	Salis fragilis	Crack Willow	Copeck
03	Salis fragilis	Crack Willow	Copeck
04	Salis fragilis	Crack Willow	Copeck
05	Salis fragilis	Crack Willow	Copeck
09	Alnus glutinosa	Common Alder	Remove to improve light to bank
22	Salis fragilis	Crack Willow	Remove to improve light to bank
28	Ulmus sp.	Elm	Remove to improve light to bank

Construction Exclusion Zone

It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

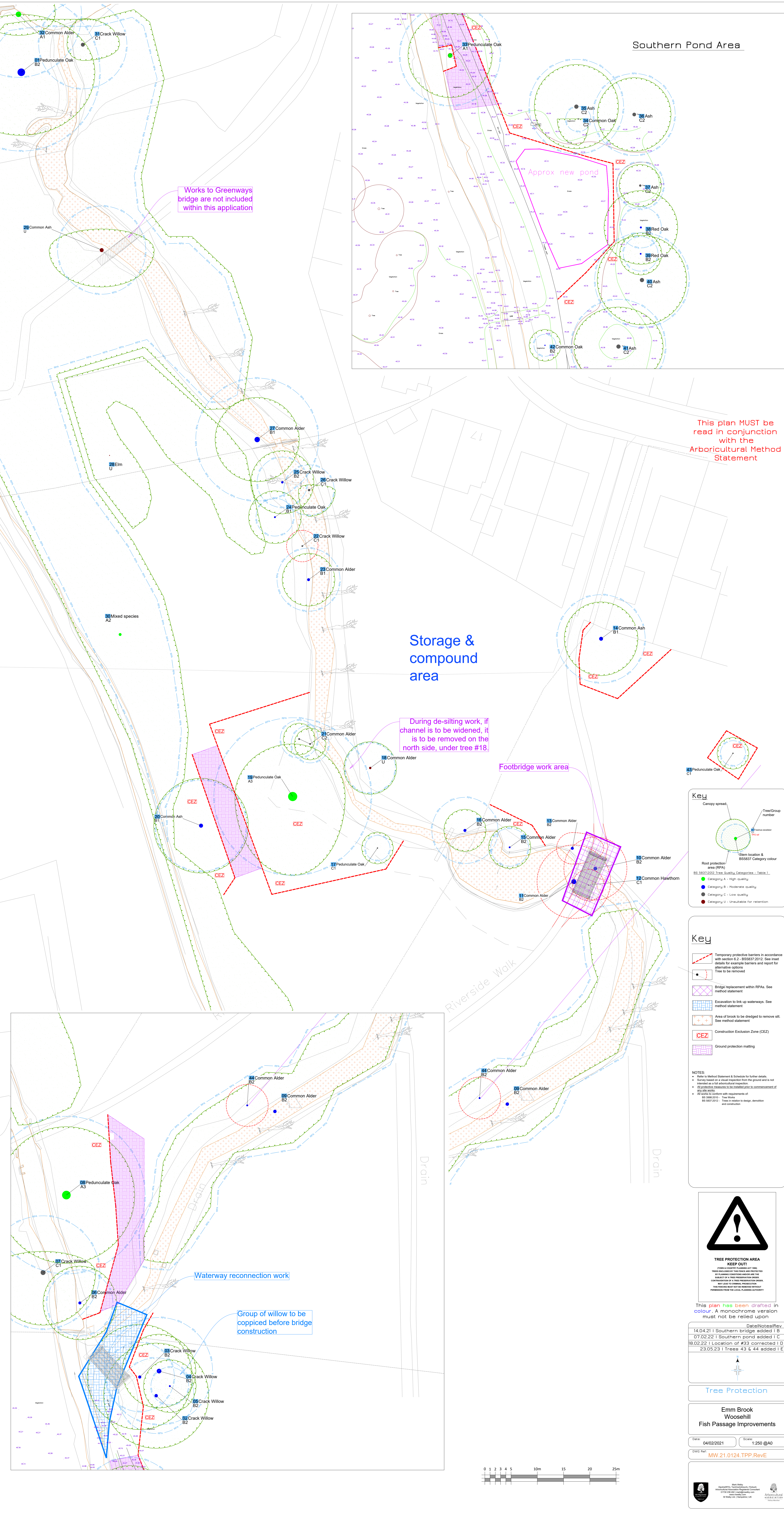
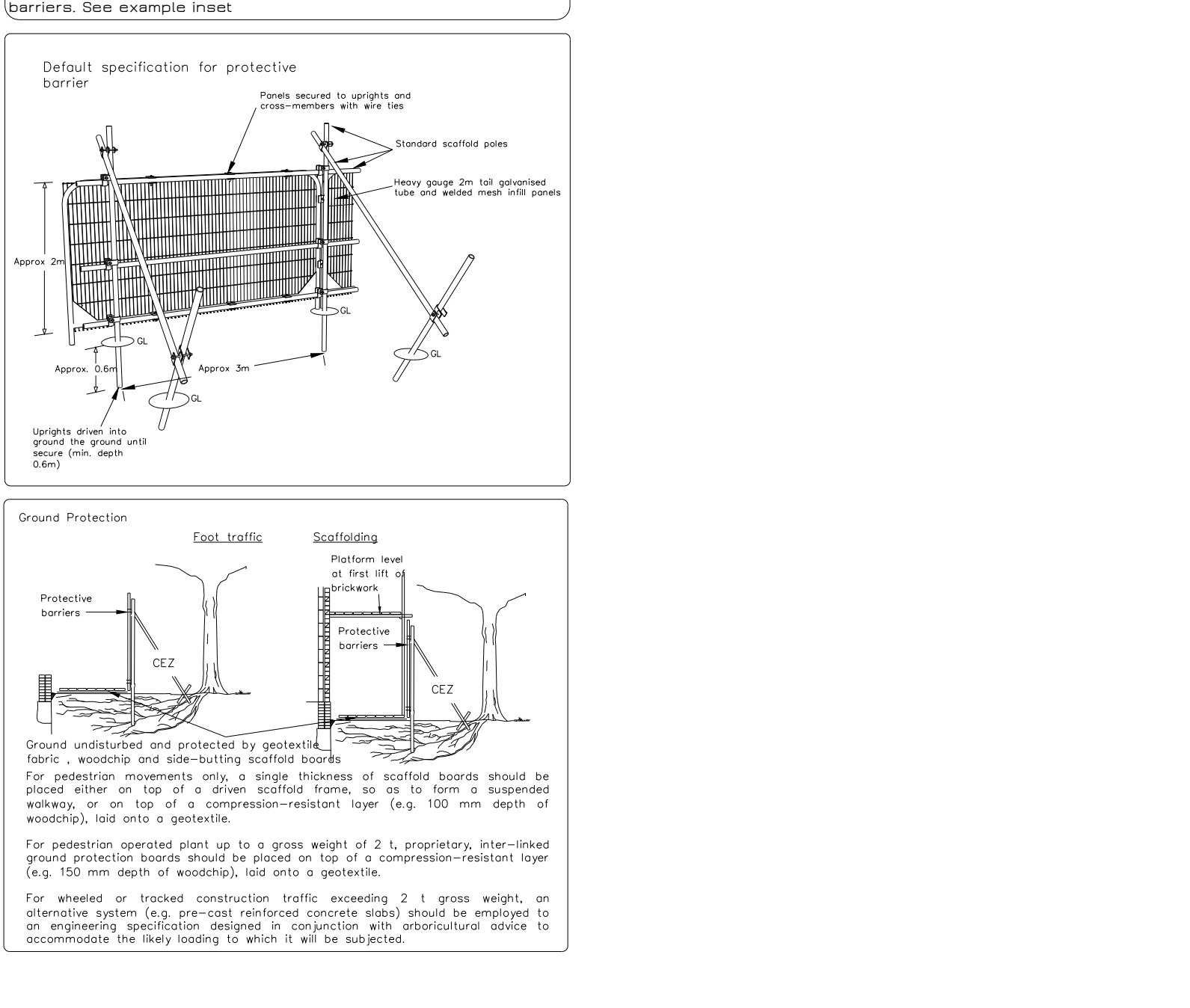
Inside the exclusion zone, the following shall apply:

- No mechanical excavation whatsoever.
- No excavation by any other means without arboricultural site supervision.
- No hand digging without a written method statement having first been approved by the project arboriculturist.
- No covering of stumps for any purpose (except removal of grass swards using hand tools).
- No storage of plant or materials.
- No storage or handling of any chemicals including cement washings.
- No vehicle access.
- No fire lighting.

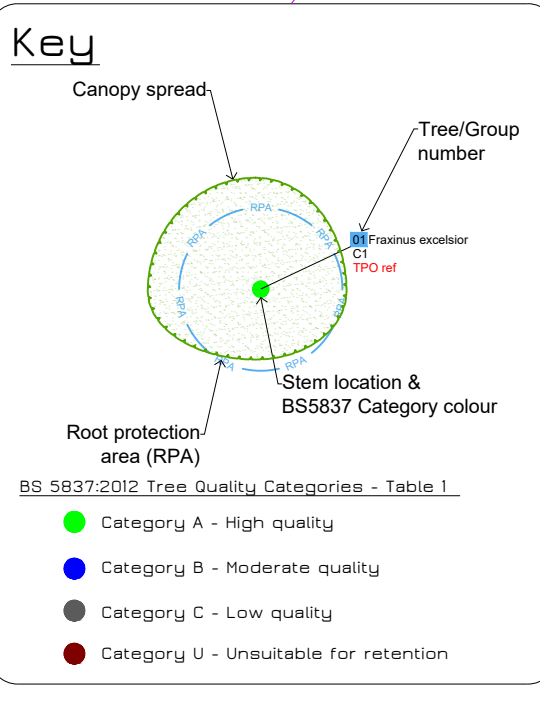
In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement including cement washings, builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees.
- No fire shall be lit such that flames come within 5m of tree foliage.

All weather signs shall be erected at reasonable intervals on the barriers. See example inset.



This plan MUST be read in conjunction with the Arboricultural Method Statement



Key

- Temporary protective barriers in accordance with section 8.2 - BS5837:2012. See method details for example barriers and report for alternative details.
- Tree to be removed.
- Bridge replacement within RPA's. See method statement.
- Excavation to link up waterways. See method statement.
- Area of bank to be designed to remove silt. See method statement.
- CEZ
- Ground protection matting.

NOTES:

- Classifications based on BS5837:2012.
- Survey based on a visual inspection from the ground and is not intended as a structural inspection.
- All proposed measures to be retained prior to commencement of any work.
- All work to be completed by 30th September 2021.
- All work to be completed by 30th September 2021.
- All work to be completed by 30th September 2021.

This plan has been drafted in colour. A monochrome version must not be relied upon.

Tree Protection

Emm Brook Woosehill Fish Passage Improvements

Date: 04/02/2021 Scale: 1:250 @A0

DWG Ref: MW 21.0124.TPP Rev E

Date/Notes/Rev
14.04.21 Southern bridge added B
07.02.22 Southern pond added C
16.02.22 Location of #33 corrected D
23.05.23 Trees 43 & 44 added E

**Emm Brook
Woosehill
Wokingham
Berkshire
RG41 3DA**

Bat Emergence & Re-Entry Survey
Ref: R2332/a

September 2019

1	INTRODUCTION	3
1.1	Background.....	3
1.2	Legislative Background.....	3
1.3	Site Location and Context.....	5
1.4	Report Format.....	5
2	SURVEY METHOD.....	6
2.1	Emergence and Re-entry Surveys.....	6
2.2	Survey Constraints.....	6
3	SURVEY FINDINGS	7
3.1	Emergence Survey – 7 th August 2019	7
3.2	Re-entry Survey – 23 rd August 2019.....	7
4	DISCUSSION AND RECOMMENDATIONS	8
5	REFERENCES	9
	APPENDIX 1 – PLAN OF EMERGENCE AND RE-ENTRY SURVEY FINDINGS	10
	APPENDIX 2 – RAW EMERGENCE AND RE-ENTRY SURVEY DATA	11

1 INTRODUCTION

1.1 Background

1.1.1 John Wenman Ecological Consultancy LLP was commissioned by the South East Rivers Trust (SERT) to undertake bat emergence and re-entry surveys of three trees on the Emm Brook at Woosehill Meadows in Wokingham. The survey was commissioned in relation to the Woosehill Fish Passage Improvements project led by SERT with the support of the Environment Agency (EA). The main aim of the project is to reconnect the Emm Brook paleo channel in order to by-pass the weir and restore fish passage; the modified channel would act as a flood relief channel.

1.1.2 A ground-level inspection of trees bordering the paleo channel of the Emm Brook was undertaken on 18th April 2019. Features suitable for roosting bats or evidence of the presence of bats were looked for during the survey. Tree 12 (T12) and tree 14 (T14) are both mature alder trees (*Alnus glutinosa*) with multiple stems and ivy (*Hedera helix*) cover and tree 13 (T14) is a hawthorn (*Crataegus monogyna*) with ivy cover. The survey found that these trees also had at least one single bat roost feature (i.e. knot hole, woodpecker hole or rot hole) and were considered to be of low bat roost potential. An emergence survey was recommended to determine the presence or likely absence of roosting bats and an additional dawn survey was carried out following the uncertainty of survey findings during the dusk survey to provide further survey information.

1.2 Legislative Background

1.2.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;

- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

1.2.2 The government’s statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is “no satisfactory alternative” to the derogation, and;
- **Regulation 55(9)(b)** - the derogation “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

1.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that European Protected Species licensing is necessary before granting planning permission.

1.2.4 European Protected Species mitigation licence applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days of a full mitigation licence application.

1.2.5 Licensable projects affecting small numbers of seven commonly occurring bat species may fall under the remit of the Bat Mitigation Class Licence (WML-CL21). The Class Licence permits ‘Registered Consultants’ to carry out licensable operations on site on behalf of clients following the registration of

John Wenman Ecological Consultancy
13/09/2019

sites with Natural England at least 15 working days before the work is due to start.

- 1.2.6** Survey data supporting EPS licence applications or the registration of the site under the Bat Mitigation Class Licence (WML-CL21) must be up to date i.e. have been conducted within the current or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

1.3 Site Location and Context

- 1.3.1** The site is part of the amenity parkland known as 'Woosehill Meadows' to the east of Morrisons supermarket in Woosehill, Wokingham (*OS grid reference: SU 79824 69269*). The three trees are situated in the middle of the site, where a path passes over the brook with T12 and T13 on the eastern side and T14 on the western side of the path.

- 1.3.2** The Emm Brook river runs through Woosehill Meadows in the centre of the Wokingham suburb of Woosehill. The wider extent of Woosehill Meadows includes open fields and woodland to the south of the site. The Woosehill Spine Road borders the northwest of the site and the Reading Road (A329) is to the north. A railway line bordered by established woodland lies approximately 210 metres to the northeast and connects to Holt Copse and Joel Park Local Nature Reserve (LNR) approximately 400 metres to the east of the site. Approximately 235 metres to the west, lies a small lake with wooded banks called Windmill Pond.

1.4 Report Format

- 1.4.1** The report is set out as follows: Section 2 presents a description of the survey methods; Section 3 summarises the findings of the emergence and re-entry surveys; and Section 4 presents a discussion of the survey findings. **Appendix 1** presents a plan showing the emergence and re-entry survey findings and **Appendix 2** presents the raw survey data.

2 SURVEY METHOD

2.1 Emergence and Re-entry Surveys

2.1.1 An emergence survey of T12, T13 and T14 was undertaken on the 7th August 2019 by two bat surveyors and a re-entry survey was undertaken on the 23rd August 2019: one surveyor was situated to the south of the brook, facing T12 and T13 (Location 1); and the second surveyor was situated north of the brook, facing T14 (Location 2).

2.1.2 The surveys were carried out with Elekon Batlogger M, Echo Meter 3, Echo Meter Touch 2 Pro and Anabat SD2 detectors and the recordings were later analysed using the BatExplorer and Analook computer software. The emergence survey started 15 minutes before sunset and continued until 1.5 hours after sunset. The re-entry survey started 1.5 hours before sunrise and ended at sunrise.

2.2 Survey Constraints

2.2.1 There were no significant constraints to the surveys, which were undertaken at a suitable time of year for undertaking emergence and re-entry surveys i.e. May to September (Collins 2016) and in conditions suitable for bat activity i.e. dry with air temperatures above 10°C.

3 SURVEY FINDINGS

3.1 Emergence Survey – 7th August 2019

3.1.1 A common pipistrelle (*Pipistrellus pipistrellus*) bat was seen by surveyor 1 to pass through the canopy of T12 and then seen by surveyor 2 to pass through the multiple stems of T14 but the flight path and behaviour was not typical of an emerging bat and was highly likely to have emerged from a tree further to the southeast. The pass was recorded 15 minutes after sunset and was the first bat of the survey, suggesting it emerged from somewhere close by (refer to plan and raw data in **Appendices 1 & 2**).

3.1.2 The level of bat activity was moderate with four different bat species recorded. Common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), noctule (*Nyctalus noctula*), and long-eared (*Plecotus* sp.) bats were recorded on site. Some of the bats were recorded passing through the site whilst others were foraging around the trees and brook.

3.2 Re-entry Survey – 23rd August 2019

3.2.1 No bats were recorded re-entering T12, T13 or T14 during the survey (refer to plan and raw data in **Appendices 1 & 2**). The level of bat activity was much lower in comparison with the levels recorded during the first survey visit. Two common pipistrelle bat passes were recorded by each surveyor.

4 DISCUSSION AND RECOMMENDATIONS

- 4.1.1** A common pipistrelle bat was seen passing through the canopy of T12 and T14 at the start of the emergence survey but did not look to emerge from either tree with a high chance that it emerged from a tree to the southeast. No bats were recorded returning to roost in suitable conditions for bat activity. Due to the presence of a common pipistrelle bat in the canopy at typical emergence time, there is a small risk that bats could be roosting in one of the trees in the future and at the time of the tree felling.
- 4.1.2** A 'soft felling' approach is recommended for the two trees, under the supervision of a licensed ecologist. A detailed toolbox talk will be carried out by a licensed and experienced ecologist to brief the tree climbers on: UK bat species, typical roosting sites/features in trees to look for using photographic examples, the legislation protecting bats and their roosts, signs indicating the presence of bats, and what to do in the unlikely event that bats are found during the course of the work. The soft-felling will involve section cutting the trees following a close-up inspection of the limbs by a tree climber. Each section will be carefully lowered to the ground and inspected by the licensed ecologist on site. If bats or evidence of roosting bats are found during the removal of these trees, a European Protected Species mitigation licence or confirmation of the site's registration under the Bat Mitigation Class Licence CL21 (if applicable) may be required to permit the work to continue lawfully.
- 4.1.3** In order to maintain roosting opportunities for bats in this area of the site, a woodcrete bat box will be installed on a retained tree immediately to the southeast of the felled trees.

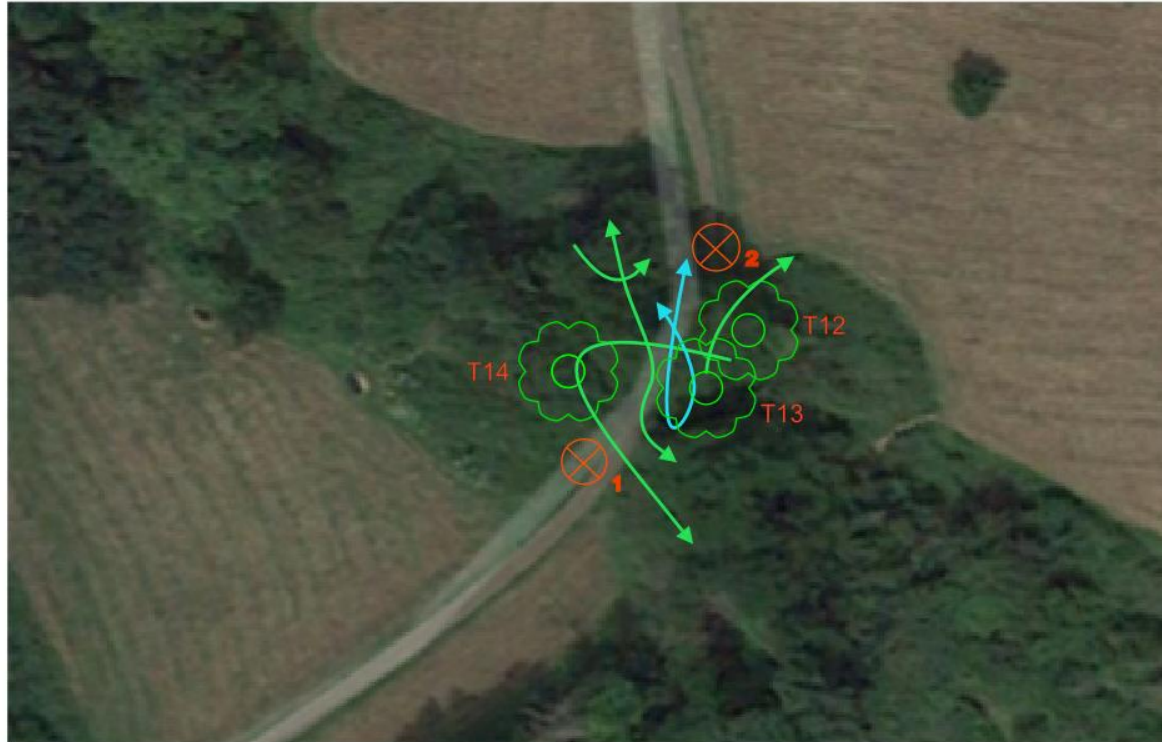
5 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London.

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3RD Edition)*. JNCC, Peterborough.

APPENDIX 1 – PLAN OF EMERGENCE AND RE-ENTRY SURVEY FINDINGS



Surveyor location (n)
 Surveyed tree
 Common pipistrelle flight paths
 Myotis sp. flight paths

Drawn by:	Date	Scale:	Emm Brook, Woosehill	
JS	Aug 2019	Not to scale	Bat Emergence and Re-entry Survey Findings - 7th August and 23rd August 2019	

214

APPENDIX 2 – RAW EMERGENCE AND RE-ENTRY SURVEY DATA

Evening Emergence Survey of Emm Brook Trees , Woosehill – 7th August 2019

Survey date: 07/08/2019		
Location 1: Facing T12 and T13		
Surveyor: Conor Watson		
Weather conditions: 19c, 5/8 cloud cover, light breeze, dry		
Start time: 20:26	Sunset: 20:41	Finish time: 22:11
Time	Species	Survey notes
20:56	Common pipistrelle	Seen passing through T12, faint call
20:59	Common pipistrelle	Quiet pass heard not seen
21:02	Common pipistrelle	Foraging
21:03 – 21:15	Soprano pipistrelle	Intermittent but constant foraging until 21:15, heard not seen
21:15	Common pipistrelle	Distant pass heard not seen
21:16	Common pipistrelle	Foraging over the path and between the trees
21:17	Soprano pipistrelle and common pipistrelle	Foraging over the path and between the trees
21:18	Common pipistrelle	Foraging heard not seen
21:22	Common pipistrelle	Pass along path north to south
21:25	Common pipistrelle	Pass heard not seen
21:31	Common pipistrelle	Pass heard not seen and social calls
21:33	Common pipistrelle	Pass along path north to south
21:34	Common pipistrelle	Foraged south to north
21:34	Common pipistrelle	Low flying pass
21:36	Common pipistrelle	Pass heard not seen
21:40	Common pipistrelle	Pass heard not seen
21:42	Noctule and common pipistrelle	Pass heard not seen
21:43	Common pipistrelle	Foraging near T12
21:45	Common pipistrelle	Pass heard not seen
21:46	Common pipistrelle	Pass heard not seen
21:50	Common pipistrelle	Pass heard not seen

Survey date: 07/08/2019		
Location 2: Facing T14		
Surveyor: Jess Smith		
Weather conditions: 19c, 5/8 cloud cover, light breeze, dry		
Start time: 20:26	Start time: 20:26	Start time: 20:26
Time	Species	Survey notes
20:56	Common pipistrelle	Seen foraging in canopy near T14
20:59	Common pipistrelle	Pass heard not seen
21:02	Common pipistrelle	Pass heard not seen
21:05	Soprano pipistrelle	Brief pass heard not seen
21:17	Common pipistrelle	Close foraging heard not seen
21:23	Common pipistrelle	Foraging under canopy
21:28	Long-eared	Foraging under canopy
21:33	Common pipistrelle	Foraging heard not seen
21:34	Common pipistrelle	Foraging heard not seen
21:36	Common pipistrelle	Foraging heard not seen
21:38	Common pipistrelle	Frequent foraging heard not seen
21:42	Noctule	Pass heard not seen
21:43	Common pipistrelle	Foraging heard not seen
21:45	Common pipistrelle	Frequent foraging heard not seen
21:50	Common pipistrelle	Pass heard not seen
22:10	Common pipistrelle	Foraging heard not seen

Dawn Re-entry Survey of Emm Brook Trees , Woosehill – 23rd August 2019

Survey date: 23/08/2019		
Location 1: Facing T12 and T13		
Surveyor: Conor Watson		
Weather conditions: 13c, 0/8 cloud cover, calm, dry		
Start time: 04:31	Sunrise: 6:01	Finish time: 6:01
Time	Species	Survey notes
4:43	Soprano pipistrelle	Brief pass heard not seen
4:45	Soprano pipistrelle	Pass heard not seen

Survey date: 23/08/2019		
Location 2: Facing T14		
Surveyor: Sarah Foot		
Weather conditions: 13c, 0/8 cloud cover, calm, dry		
Start time: 04:31	Sunrise: 6:01	Finish time: 6:01
Time	Species	Survey notes
04:44	Soprano pipistrelle	Very brief pass heard not seen
04:48	Soprano pipistrelle	Brief pass heard not seen

Riverside Park
Woosehill
Wokingham
Berkshire
RG41 3DA

Bat Emergence & Re-Entry Survey

Ref: R2818/a

July 2021

1	EXECUTIVE SUMMARY	3
2	INTRODUCTION	4
2.1	Background.....	4
2.2	Legislative Background.....	4
2.3	Site Location and Context.....	6
2.4	Report Format.....	6
3	SURVEY METHOD.....	7
3.1	Emergence and Re-entry Surveys.....	7
3.2	Survey Constraints.....	7
4	SURVEY FINDINGS	8
4.1	Emergence Survey – 17 th May 2021.....	8
4.2	Re-entry Survey – 11 th June 2021	8
5	DISCUSSION AND RECOMMENDATIONS	9
5.1	Assessment of Bat Roost Status.....	9
5.2	Impact of Proposals and Recommendations	9
6	MITIGATION AND COMPENSATION PROPOSALS.....	10
7	REFERENCES	11
	APPENDIX 1 – PLAN OF EMERGENCE AND RE-ENTRY SURVEY FINDINGS	12
	APPENDIX 2 – RAW EMERGENCE AND RE-ENTRY SURVEY DATA.....	13

1 EXECUTIVE SUMMARY

- 1.1.1 John Wenman Ecological Consultancy LLP was commissioned by the South East Rivers Trust (SERT) to undertake a bat survey for a tree at Riverside Park in Woosehill, Wokingham. A mature alder tree (*Alnus glutinosa*) – **T6** (OS grid reference: SU 79929 69061) – graded as moderate bat roost potential requires removal to enable work to reconnect the paleo channel. Therefore, further bat emergence and re-entry survey was conducted to determine the presence or likely absence of roosting bats.
- 1.1.2 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). An evening emergence survey of **T6** was undertaken on the 17th May 2021 and a dawn re-entry survey on the 11th June 2021.
- 1.1.3 During the emergence survey, one soprano pipistrelle bat (*Pipistrellus pygmaeus*) was observed flying low towards the surveyor at Location 2 and was considered likely to have emerged from **T6**. During the re-entry survey, one common pipistrelle (*Pipistrellus pipistrellus*) circled above the surveyor at Location 1 from 04:23 before flying low towards, and likely returning to roost in, **T39** – an adjacent tree.
- 1.1.4 The removal of **T6**, and **T39** if necessary, would likely result in the permanent loss of soprano pipistrelle (*P. pygmaeus*) and common pipistrelle (*P. pipistrellus*) day roosts, and in the absence of mitigation the arboricultural work could result in any bats present being disturbed and potentially injured or killed. Therefore, a European Protected Species Mitigation Licence (EPSML) will be required to allow the work to proceed lawfully.
- 1.1.5 A tree-mounted Schwegler 2F-DFP (or functionally equivalent woodcrete box) will provide long-term replacement opportunities for day roosting bats.

2 INTRODUCTION

2.1 Background

2.1.1 John Wenman Ecological Consultancy LLP was commissioned by the South East Rivers Trust (SERT) to undertake a bat survey for a tree at Riverside Park in Woosehill, Wokingham.

2.1.2 The survey was commissioned in relation to the Restoration of the Emm Brook project led by SERT and co-funded by the European Regional Development Fund (under its European Structural & Investment Fund) and the Environment Agency. The aim of the project is to improve the health of the Emm Brook by reconnecting 230 metres of paleo channel to by-pass the weir and restore fish passage.

2.1.3 The following reports by John Wenman Ecological Consultancy LLP have been completed for the project: Extended Phase 1 Habitat Survey in April 2019 (R2207/c); Phase 2 Ecological Surveys in May 2019 (R2220/b); Bat Emergence & Re-entry Survey in September 2019 (R2332/a) and Phase 2 Ecological Surveys ADDENDUM (R2708/a).

2.1.4 A mature alder tree (*Alnus glutinosa*) – **T6** – graded as moderate bat roost potential requires removal to enable work to reconnect the paleo channel. Therefore, further bat emergence and re-entry survey was conducted to determine the presence or likely absence of roosting bats. The results of this further survey and the subsequent recommendations are detailed within this report.

2.2 Legislative Background

2.2.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations') (as amended). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;

- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

2.2.2 The government’s statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species Mitigation Licences (EPSML) that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is “no satisfactory alternative” to the derogation, and;
- **Regulation 55(9)(b)** - the derogation “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

2.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that EPSML is necessary before granting planning permission.

2.2.4 EPSML applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days.

2.2.5 Survey data supporting EPSML applications must be up to date i.e., have been conducted within the current or most recent optimal survey season i.e., May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application.

2.3 Site Location and Context

2.3.1 The site is part of the amenity parkland known as Riverside Park (or 'Woosehill Meadows') to the east of Morrisons supermarket in Woosehill, Wokingham. The mature alder tree (*A. glutinosa*) – **T6** – sits next to a culvert in the paleo channel (OS grid reference: SU 79929 69061).

2.3.2 The Emm Brook river runs through Riverside Park in the centre of the Wokingham suburb of Woosehill. The wider extent of Woosehill Meadows includes open fields and woodland to the south of the site. The Woosehill Spine Road borders the northwest of the site and the Reading Road (A329) is to the north. A railway line bordered by established woodland lies approximately 210 metres to the northeast and connects to Holt Copse and Joel Park Local Nature Reserve (LNR) approximately 400 metres to the east of the site. Approximately 235 metres to the west, lies a small lake with wooded banks called Windmill Pond.

2.4 Report Format

2.4.1 The report is set out as follows: **Section 3** presents a description of the survey methods; **Section 4** summarises the findings of the emergence and re-entry surveys; and **Section 5** presents a discussion of the survey findings. **Appendix 1** presents a plan showing the emergence and re-entry survey findings and **Appendix 2** presents the raw survey data.

3 SURVEY METHOD

3.1 Emergence and Re-entry Surveys

3.1.1 An evening emergence survey of **T6** was undertaken on the 17th May 2021 and a dawn re-entry survey on the 11th June 2021. Each survey was carried out by two surveyors experienced in conducting bat detector surveys. During the surveys, one surveyor was situated to the south of **T6** (Location 1) and the second was positioned to the northeast (Location 2).

3.1.2 The emergence survey was conducted with EchoMeter Touch 2 Pro detectors and a Batbox Duet detector; the re-entry survey used an Elekon Batlogger M detector and an EchoMeter Touch 2 Pro detector. The EchoMeter recording were converted to ZC files in Kaleidoscope before being analysed in the AnalookW computer software package. The Batlogger data was analysed using the BatExplorer computer software.

3.1.3 The emergence survey started 15 minutes before sunset and continued until 1.5 hours after sunset. The re-entry survey started 1.5 hours before sunrise and ended at sunrise.

3.2 Survey Constraints

3.2.1 There were no significant constraints to the surveys, which were undertaken at a suitable time of year for undertaking emergence and re-entry surveys i.e., May to September (Collins 2016) and in conditions suitable for bat activity i.e., mostly dry with air temperatures above 10°C.

4 SURVEY FINDINGS

4.1 Emergence Survey – 17th May 2021

4.1.1 A soprano pipistrelle bat (*Pipistrellus pygmaeus*) was observed at 21:05 flying low towards the surveyor at Location 2 and was considered likely to have emerged from **T6**.

4.1.2 The amount of bat activity was low and only two species were recorded during the survey: common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*P. pygmaeus*). Both surveyors observed common pipistrelle bats (*P. pipistrellus*) flying low through the woodland on three occasions; the rest of the recordings were unseen.

4.2 Re-entry Survey – 11th June 2021

4.2.1 A common pipistrelle bat (*P. pipistrellus*) was observed foraging around the surveyor at Location 1 from 04:23 before flying towards, and likely returning to roost in, **T39** (adjacent to **T6**).

4.2.2 The level of bat activity was moderate but only three species were recorded during the survey: common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and noctule (*Nyctalus noctula*). From 04:00 onwards, except for one passing soprano pipistrelle (*P. pygmaeus*), common pipistrelle bats (*P. pipistrellus*) were observed foraging in and around the woodland. A noctule was heard only at 04:24.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Assessment of Bat Roost Status

5.1.1 During the emergence survey, one soprano pipistrelle bat (*Pipistrellus pygmaeus*) was observed flying low towards the surveyor at Location 2 and was considered likely to have emerged from **T6**. During the re-entry survey, one common pipistrelle (*Pipistrellus pipistrellus*) circled above the surveyor at Location 1 from 04:23 before flying low towards, and likely returning to roost in, **T39** – an adjacent tree. These observations indicate that the thick ivy (*Hedera helix*) cover on the trunks of **T6** and **T39** is being used for day roosts by individual male or non-breeding female bats. Day roosts in trees can be highly changeable and the proximity of these trees means that the species recorded could be utilising either tree.

5.1.2 Soprano pipistrelle (*P. pygmaeus*) and common pipistrelle bats (*P. pipistrellus*) are widespread and common throughout the UK (Richardson 2000); with roosts supporting small numbers of non-breeding adults considered to be of low conservation importance (Mitchell-Jones 2004).

5.2 Impact of Proposals and Recommendations

5.2.1 The removal of **T6**, and **T39** if necessary, would likely result in the permanent loss of soprano pipistrelle (*P. pygmaeus*) and common pipistrelle (*P. pipistrellus*) day roosts, and in the absence of mitigation the arboricultural work could result in any bats present being disturbed and potentially injured or killed.

5.2.2 A European Protected Species Mitigation Licence (EPSML) will be required to allow the work to proceed lawfully and can be issued by Natural England if the three licensing tests (detailed in Paragraph 2.2.2) have been met by the proposed work.

5.2.3 To meet one of the licensing tests, it would be necessary to demonstrate that the 'favourable conservation status' of bats using **T6** and **T39** would be maintained during and after their removal by providing compensatory roosts in the short-term and ensuring that roosting sites are retained on site in the long-term. Mitigation and compensation proposals detailed in **Chapter 6** below would ensure the 'favourable conservation status' of bats roosting on site.

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6 MITIGATION AND COMPENSATION PROPOSALS

- 6.1.1** Prior to the removal of either T6 or T39, a European Protected Species Mitigation Licence (EPSML) will be obtained from Natural England.
- 6.1.2** The arboricultural work will be undertaken outside of the winter hibernation season (mid-November to February) to minimise the risk of disturbing torpid bats. Before the work begins, one Schwegler 2F-DFP bat box (or functionally equivalent woodcrete box) will be fixed to a suitable mature tree on site and will be in place for a minimum of five years (boxes can only be removed after the five years if no evidence of use has been found at this stage).
- 6.1.3** Before the arboricultural work commences, the licensed ecologist will give a toolbox talk detailing that: roosting bats may be present, legislation protecting bats and their roosts, the location of the bat roosts, good working practices, measures required to protect bats during the work and what to do if bats are found. A copy of the EPSML will be available for inspection on site during the arboricultural work.
- 6.1.4** The thick ivy (*Hedera helix*) cover will be removed carefully and a 'soft fell' approach to tree removal will be adopted under the direct supervision of a licensed ecologist; if feasible, severing of the ivy stems at the base of the tree to allow for ivy dieback before felling would be beneficial. This approach will involve a close-up inspection of potential roost features by a tree climber before cutting and carefully lowering each section to the ground using ropes. The cut sections will be left on the ground in situ for at least 24 hours to allow any roosting bats to disperse overnight. If bat(s) are discovered during the work, the licensed ecologist will capture the bat(s) and transfer it/them directly to the bat box erected in advance.
- 6.1.5** The tree-mounted Schwegler 2F-DFP (or functionally equivalent woodcrete box) will provide long-term replacement opportunities for day roosting soprano pipistrelle (*Pipistrellus pygmaeus*) and common pipistrelle bats (*Pipistrellus pipistrellus*).

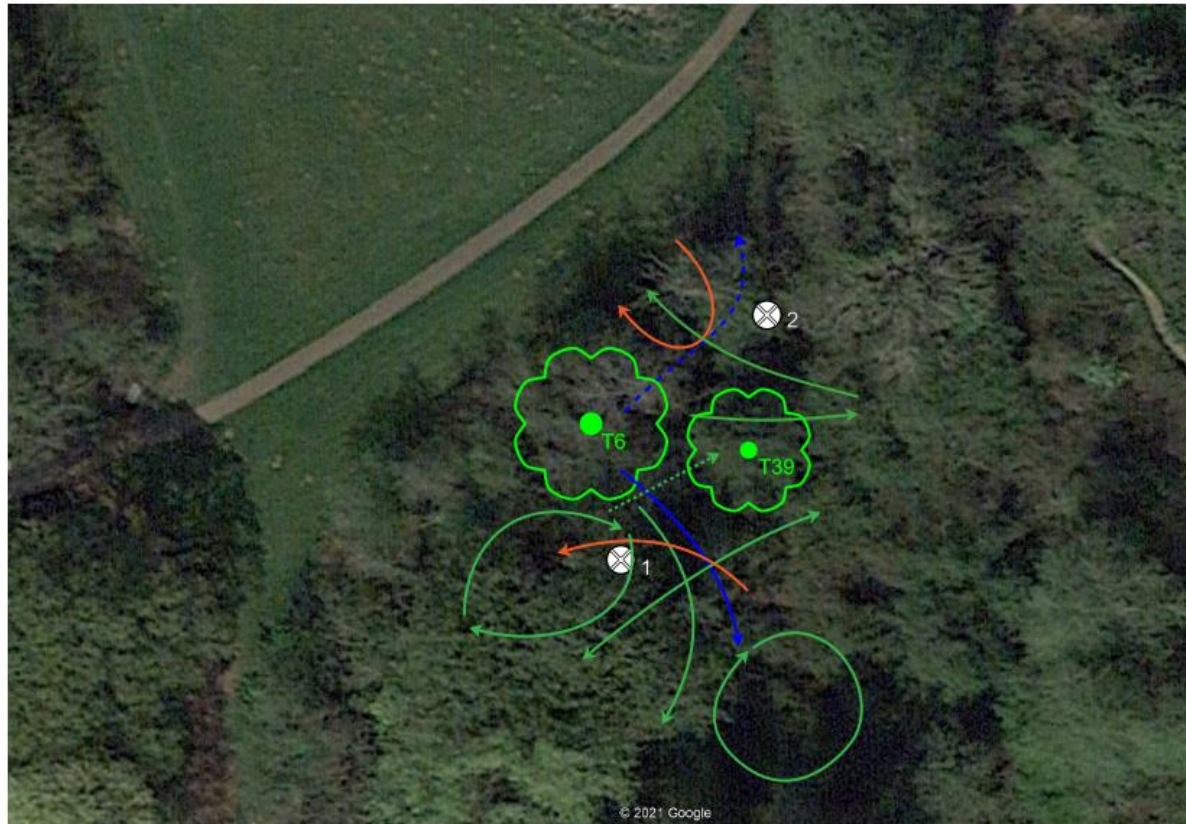
7 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London.

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3RD Edition)*. JNCC, Peterborough.

APPENDIX 1 – PLAN OF EMERGENCE AND RE-ENTRY SURVEY FINDINGS



- ⊗ n Surveyor location ☁ n ———▶ *Pipistrellus* sp. flight path
- ⋯▶ Common pipistrelle re-entry - - - -▶ Soprano pipistrelle emergence ———▶ Soprano pipistrelle flight path ———▶ Common pipistrelle flight path

Drawn by:	Date	Scale:	T6 at Riverside Park, Woosehill Wokingham	
CW	June 2021	Not to scale	Bat Emergence & Re-entry Survey Findings	

John Wenman Ecological Consultancy LLP

**Emm Brook
Woosehill
Wokingham
Berkshire
RG41 3DA**

Extended Phase 1 Ecological Survey

Ref: R2207/c

April 2019

 **JOHN WENMAN**
ecological consultancy

1	SUMMARY	3
2	INTRODUCTION	5
2.1	Overview	5
2.2	Site Location and Context	5
2.3	Report format	6
3	PLANNING POLICY BACKGROUND	7
3.1	National Planning Policy	7
3.2	Local Planning Policy	8
4	LEGISLATIVE BACKGROUND – PROTECTED SPECIES	10
4.1	Amphibians	10
4.2	Reptiles	10
4.3	Birds	11
4.4	Bats	11
4.5	Badgers	11
4.6	Otters	12
4.7	Hazel Dormice	12
4.8	Water Voles	13
4.9	Invasive Non-Native Plants	14
4.10	Injurious Weeds	14
4.11	Wild Mammals	14
5	SURVEY METHODS	15
5.1	Phase 1 Habitat Survey	15
5.2	Background Data Search	15
5.3	Survey Constraints	16
6	BACKGROUND DATA SEARCH FINDINGS	17
7	PHASE 1 HABITAT SURVEY FINDINGS	19
7.1	Site Overview	19
8	DISCUSSION	23
8.1	Assessment of Existing Ecological Value	23
8.2	Impact of Proposals	27
9	RECOMMENDATIONS	30
9.1	Habitat Mitigation	30
9.2	Bats	30
9.3	Amphibians	31
9.4	Reptiles	32
9.5	Nesting Birds	32
9.6	Invertebrates	33
9.7	Ecological Enhancement	33
10	REFERENCES	35
	APPENDIX 1 - SITE PHOTOGRAPHS	36
	APPENDIX 2 - PHASE 1 HABITAT SURVEY PLAN	39
	APPENDIX 3 - PLANT SPECIES RECORDED DURING THE SURVEY	41

1 SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by the South East Rivers Trust to undertake an Extended Phase 1 Habitat Survey of the Emm Brook at Woosehill Meadows in Wokingham. The survey was commissioned in relation to the Woosehill Fish Passage Improvements project led by the South East Rivers Trust (SERT) with the support of the Environment Agency (EA).
- 1.1.2** The site forms part of the amenity parkland known as 'Woosehill Meadows' to the east of Morrisons supermarket in Woosehill, Wokingham (OS grid reference: SU 79824 69269). The site is used by the local community as a recreational area and as such consists of large areas of amenity grassland and woodland. The current (modified) channel of the Emm Brook spanned the western side of the site with a weir in the woodland to the north. The paleo channel of the Emm Brook ran along the edge of the southern woodland, to the east of the main channel, before rejoining the river to the north of the site. A section of the paleo channel had been excavated to create a pond in the centre of the site and scattered trees lined the banks of the channels in proximity to the open amenity areas.
- 1.1.3** A search of data held by Thames Valley Environmental Records Centre (TVERC) for land within a 2km radius has shown the site is not statutorily or non-statutorily designated for its wildlife interest and therefore not recognised as being of international, national or county level wildlife importance. However, the Emm Brook and the broadleaved woodland on site are classified as a Habitats of Principal Importance for conservation (HPI) as defined under the NERC Act 2006 and therefore of local conservation importance within the borough.
- 1.1.4** During the site walkover, a large extent of the site comprised amenity grassland supporting common and widespread plant species of negligible ecological value. The scattered trees and bramble scrub bordering the Emm Brook had ecological value at the site level with the potential to support a range of riparian and woodland species.

1.1.5 Proposed mitigation measures and recommendations have been outlined including:

- Creation of a replacement pond;
- Planting of willow and hazel coppice to compensate for the loss of some understorey clearance along the channel;
- Ground level inspection of trees proposed for removal to determine the potential for roosting bats;
- Further survey of the ponds and paleo channel to determine the presence or likely absence of great crested newts;
- Precautionary mitigation measures for amphibians and reptiles during tree/vegetation clearance and sediment excavation;
- Any tree or dense bramble removal required should be completed outside of peak bird nesting season or following an inspection by an ecologist confirming an absence of nesting activity; and
- Any clearance of deadwood or removal of large woody material should be completed with an ecologist present to assist in careful translocation of stag beetle larvae or sheltering amphibians or reptiles if present.

1.1.6 The proposals present opportunities for ecological enhancements in order to achieve a net gain in biodiversity value on site such as:

- Grassland enhancement through plug planting and late cutting regime;
- Re-profiling and planting of flood relief channel (current modified channel) to create a wetland area on site;
- Provision of bat and bird boxes in the woodland; and
- Creation of stag beetle habitat by digging logs into the ground and positioning them vertically.

2 INTRODUCTION

2.1 Overview

- 2.1.1** John Wenman Ecological Consultancy LLP was commissioned by Toby Hull of the South East Rivers Trust to undertake an Extended Phase 1 Habitat Survey of the Emm Brook at Woosehill Meadows in Wokingham.
- 2.1.2** The survey was commissioned in relation to the Woosehill Fish Passage Improvements project led by the South East Rivers Trust (SERT) with the support of the Environment Agency (EA). The main aim of the project is to reconnect the Emm Brook paleo channel in order to by-pass the weir and restore fish passage. The modified channel would act as a flood relief channel.
- 2.1.3** The Greenways Project is in progress aiming to create a traffic-free multi-user route connecting the new Arborfield Garrison development to the Finchampstead Baptiste Centre via California Country Park (now completed) and to North Wokingham via Woosehill (consultation has closed and the route is in planning stages). This will involve the construction of a multi-use path through Woosehill Meadows and therefore all proposals relating to the fish passage improvement scheme will need to consider this proposed route.

2.2 Site Location and Context

- 2.2.1** The site is part of the amenity parkland known as 'Woosehill Meadows' to the east of Morrisons supermarket in Woosehill, Wokingham (OS grid reference: SU 79824 69269).
- 2.2.2** The Emm Brook river runs through Woosehill Meadows in the centre of the Wokingham suburb of Woosehill. The wider extent of Woosehill Meadows includes open fields and woodland to the south of the site. The Woosehill Spine Road borders the northwest of the site and the Reading Road (A329) is to the north. A railway line bordered by established woodland lies approximately 210 metres to the northeast and connects to Holt Copse and Joel Park Local Nature Reserve (LNR) approximately 400 metres to the east of the site. Approximately 235 metres to the west, lies a small lake with wooded banks called Windmill Pond.

John Wenman Ecological Consultancy

2.2.3 Overall, the surrounding area offers pockets of habitat suitable for use by a range of fauna adapted to suburban environments.

2.3 Report format

2.3.1 There follows: an overview of the planning policy background in Section 3 and of the protected species legislation in Section 4; details of the survey methods in Section 5; background data search findings in Section 6; Phase 1 habitat survey findings in Section 7; and a discussion of the survey findings in Section 8. The appendices present: site photographs (**Appendix 1**); a Phase 1 habitat survey plan with associated target notes (**Appendix 2**); and a plant species list recorded during the survey (**Appendix 3**).

3 PLANNING POLICY BACKGROUND

3.1 National Planning Policy

3.1.1 The ODPM Circular 06/2005 provides guidance on the application of the law relating to planning and nature conservation stating that *'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

3.1.2 The revised National Planning Policy Framework (NPPF), published in July 2018, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach local authorities should adopt to conserve and enhancing the natural environment when preparing planning policy and when considering planning applications. Paragraph 175 sets out the principles local authorities should apply when determining planning applications as follows:

175. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and*

- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

3.2 Local Planning Policy

3.2.1 Wokingham Borough Council currently has in place a Core Strategy Development Plan Document (DPD), adopted in January 2010. The Core Strategy DPD sets out the long term 'spatial vision' for the Wokingham Borough up until March 2026. The emerging Local Plan Update document will refine the current Core Strategy from 2006 to 2026 to provide the strategy for the Borough from April 2013 to March 2036 and it is expected to be completed ('adopted') in Spring 2022.

3.2.2 Policy CP7 of the Core Strategy DPD provides guidance on how biodiversity should be considered as part of development. The Policy states:

'Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the status of the site in terms of its international or national importance. Development:

A) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or

B) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or

C) That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:

- i) Mitigation measures can be put in place to prevent damaging impacts; or*
- ii) Appropriate compensation measures to offset the scale and kind of losses are provided.'*

Areas of Wokingham Borough fall within the nationally designated Thames Basin Heath Special Protection Area (SPA) and the Thames Basin Heath SPA Impact Avoidance Strategy document (adopted July 2009 and updated in April 2010) provides guidance on the information required by Wokingham Borough Council in order to assess the impact of development on the SPA and consider how negative impacts of residential development on a SPA for rare birds will be avoided and mitigated.

4 LEGISLATIVE BACKGROUND – PROTECTED SPECIES

4.1 Amphibians

4.1.1 The seven native species of amphibian receive protection under the Wildlife & Countryside Act 1981 (as amended). The four widespread and common amphibians (common frog, toad, smooth and palmate newts) receive limited protection – making their sale illegal.

4.1.2 Of the seven native amphibian species, the widespread great crested newt receives full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation of Species and Habitats Regulations 2017 ('Habitat Regulations') (as amended). These make it illegal to:

- Intentionally or recklessly kill, injure or take a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt;
- Intentionally or recklessly disturb great crested newts; in particular, any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

4.1.3 The great crested newt and common toad are listed as being of principal importance for the conservation of biodiversity in England (SPI), under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, (commonly referred to as a UK Priority Species).

4.2 Reptiles

4.2.1 The four widespread reptiles most likely to be encountered (adder, grass snake, slow worm and viviparous lizard) are protected under the Wildlife & Countryside Act 1981 (as amended). The Act makes it an offence to intentionally kill, injure, possess or sell any of the species.

4.2.2 The four reptile species are listed as being of principal importance for the conservation of biodiversity in England, under Section 41 of the Natural

Environment and Rural Communities Act 2006, (commonly referred to as a UK Priority Species).

4.3 Birds

4.3.1 All wild birds are protected under the Wildlife & Countryside Act 1981 (as amended). The Act makes it an offence to kill, injure or take a wild bird or to damage or destroy the nest of a wild bird whilst in use or being built.

4.3.2 Less common bird species of conservation concern, such as the barn owl and kingfisher, are listed on Schedule 1 of the Act, which makes it an offence to disturb the birds whilst nesting also.

4.4 Bats

4.4.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

4.5 Badgers

4.5.1 Badgers are protected by the Protection of Badgers Act 1992. The Act makes activities such as development that would harm or disturb badgers or damage, obstruct or destroy their setts illegal. If badgers are to be affected by the proposed development, activities can be undertaken only under a licence issued by Natural England. The issue of a licence would be subject to the development of a suitable mitigation strategy.

4.6 Otters

4.6.1 Otters are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by an otter;
- Deliberately, intentionally or recklessly disturb otters; in particular any disturbance which is likely to impair the ability of otters to survive, breed or reproduce or nurture their young; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any otter.

4.7 Hazel Dormice

4.7.1 Hazel dormice receive full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations') (as amended). These make it illegal to

- Intentionally or recklessly kill, injure or take a dormouse;
- Possess or control any live or dead specimen or anything derived from a dormouse;
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a dormouse;
- Intentionally or recklessly disturb dormice; in particular any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

4.7.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of

the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is “no satisfactory alternative” to the derogation, and;
- **Regulation 55(9)(b)** - the derogation “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

4.7.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by an application affecting European protected species before granting planning permission. **N.B. the requirements set out in 4.7.2 and 4.7.3 apply to development that would affect bats, great crested newts and otters, which are European Protected Species also.**

4.8 Water Voles

4.8.1 Since April 2008, water voles have received full protection under Section 9 of the Wildlife & Countryside Act 1981 (as amended). This makes it an offence to intentionally kill, injure or take water voles or to possess or control live or dead water voles or derivatives. It is an offence to intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.

4.8.2 The water vole is listed as being of principal importance for the conservation of biodiversity in England (SPI), under Section 41 of the Natural Environment and Rural Communities Act 2006, (commonly referred to as a UK Priority species).

4.9 Invasive Non-Native Plants

4.9.1 The Wildlife and Countryside Act 1981 (as amended) provides the primary controls on the release of non-native species into the wild in Great Britain. It is an offence under section 14(2) of the Act to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9, Part II. The species listed in the Act includes Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and himalayan balsam (*Impatiens glandulifera*).

4.10 Injurious Weeds

4.10.1 Five native plants are listed as injurious weeds under the Weeds Act 1959: common ragwort (*Senecio jacobaea*), spear thistle (*Cirsium vulgare*), creeping or field thistle (*Cirsium arvense*), broad-leaved dock (*Rumex obtusifolius*) and curled dock (*Rumex Crispus*). The Act means it is not an offence to have these weeds growing on your land and species such as ragwort have significant conservation benefits. However, they must not be allowed to spread to agricultural land, particularly grazing areas or land which is used to produce conserved forage. Enforcement notices can be issued following complaints requiring landowners to take action to prevent the spread of these weeds.

4.11 Wild Mammals

4.11.1 Under the Wild Mammals (Protection) Act 1996 it is an offence to intentionally inflict unnecessary suffering, as specified by the Act, on any wild mammal.

5 SURVEY METHODS

5.1 Phase 1 Habitat Survey

5.1.1 An ecological walkover survey was undertaken on the 21st March 2019, by a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) supported by an assistant ecologist. During the survey, the habitats present were noted and plotted on a site plan (**Appendix 2**) using definitions based on the standard Phase 1 Habitat survey definitions (JNCC 2010). Key features of the site were photographed (**Appendix 1**) and plotted on the site plan using target notes (**Appendix 2**).

5.1.2 Any features of ecological importance were recorded, and plant species observed during the survey noted (**Appendix 3**). Particular attention was given to any evidence of the presence of protected species and the site's potential to support such species and those of species of principal importance for conservation (SPI) (as defined under Section 41 of the NERC Act 2006).

5.1.3 A meeting with Wokingham Borough Council's Ecology Officer was arranged to discuss and establish suitable mitigation and enhancement opportunities that are feasible within the management of the Woosehill site with the principle aims of benefiting both the ecological and amenity value of the site. Consideration of the points raised at the meeting has been incorporated into the recommendations in Section 9.

5.2 Background Data Search

5.2.1 Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of pre-existing records of protected and/or notable species and statutorily and non-statutorily designated wildlife sites held by them for the site and land within a 2km radius search area.

5.2.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) website was referred to for pre-existing data on Habitats of Principal Importance (HPI) (as defined under Section 41 of the NERC Act 2006) and to understand the nature of surrounding habitats.

5.3 Survey Constraints

- 5.3.1** Full access was available to the site and therefore there were no significant access constraints to the walkover survey findings. The survey was subject to seasonal constraints; not all plant and animal species are visible throughout the year and therefore the report represents a snapshot of the site at the time of the survey only. The plant species list presented should not be considered a comprehensive list of species present.

6 BACKGROUND DATA SEARCH FINDINGS

- 6.1.1** The search of data held by TVERC and MAGIC shows that the survey site is not statutorily or non-statutorily designated for its wildlife interest. However, one statutorily designated site does fall within a 2km radius of the site: Holt Copse and Joel Park Local Nature Reserve (LNR) is approximately 400 metres to the east.
- 6.1.2** There are three Local Wildlife Sites (LWS) – non-statutorily designated sites of conservation interest in Berkshire – within the 2km radius of the site. Holt Copse LWS forms part of the LNR and is designated for its ancient semi-natural woodland. Bearwood Estate – Woods and Lakes LWS sits approximately 900 metres to the west of the site and 1240 metres to the south is Bottle Copse LWS.
- 6.1.3** One amphibian species has been recorded within the 2km radius of the site within the last 10 years: great crested newt (GCN; *Triturus cristatus*). GCN eggs were recorded in the Wokingham Millennium Arboretum Pond (approximately 1200 metres north) on three separate occasions in 2012 and fourteen adults were recorded in 2010.
- 6.1.4** Three reptile species have been recorded within the 2km radius of the site within the last 10 years: common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*) and grass snake (*Natrix helvetica*). The closest records are of adult and juvenile slow-worms at 195A-199 Reading Road, approximately 750 metres to the northwest of the site, in 2010.
- 6.1.5** The data held by TVERC includes a range of protected and notable bird species records within the 2km search radius of the site. Birds recorded that are listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) include: red kite (*Milvus milvus*), hobby (*Falco subbuteo*), green sandpiper (*Tringa ochropus*), barn owl (*Tyto alba*), kingfisher (*Alcedo atthis*), fieldfare (*Turdus pilaris*), redwing (*Turdus iliacus*) and brambling (*Fringilla montifringilla*). Species recorded that are on the Birds of Conservation Concern (BOCC) Red list include: yellow wagtail (*Motacilla flava*), grey wagtail (*Motacilla cinerea*), spotted flycatcher (*Muscicapa striata*), starling (*Sturnus vulgaris*), lesser redpoll (*Acanthis cabaret*), linnet (*Linaria cannabina*) and yellowhammer (*Emberiza citrinella*).

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- 6.1.6** At least seven bat species have been recorded within the 2km search area (in the last 10 years): serotine (*Eptesicus serotinus*), Natterer's bat (*Myotis nattereri*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Nathusius' pipistrelle (*Pipistrellus nathusii*), brown long-eared bat (*Plecotus auritus*) and noctule (*Nyctalus noctula*). The records for notable and/or protected terrestrial mammals (excluding bats) held include: west European hedgehog (*Erinaceus europaeus*) – an SPI – and Eurasian badger (*Meles meles*).
- 6.1.7** There are a number of electrofishing records from the Environment Agency - dating from 2010 to 2013 - of Bullhead (*Cottus gobio*) on the Emm Brook to the north and south of the site,
- 6.1.8** The invertebrate records within the search area in the last 10 years include: stag beetle (*Lucanus cervus*) – a SPI; and the notable *Attactagenus plumbeus* and large fruit bark beetle (*Scolytus mali*).

7 PHASE 1 HABITAT SURVEY FINDINGS

7.1 Site Overview

7.1.1 The site is used by the local community as a recreational area and as such consists of large areas of amenity grassland and woodland. The main (modified) channel of the Emm Brook spanned the western side of the site with a weir in the woodland to the north. The paleo channel of the Emm Brook ran along the edge of the southern woodland, to the east of the main channel, before rejoining the river in the north of the site. A section of the paleo channel had been excavated by the Friends of Emm Brook to create a pond in the centre of the site, and scattered trees and scrub lined the banks of the channels in proximity to the open amenity areas.

7.1.2 The following Phase 1 habitat types were observed during the survey: mesotrophic running water, mesotrophic standing water, amenity grassland, semi-natural broadleaved woodland and scattered broadleaved trees.

7.1.3 The habitat types are detailed below; the site photographs are in **Appendix 1**, their distribution is shown on the site plan with associated target notes with detailed species compositions are described in **Appendix 2**, and a list of species recorded in **Appendix 3**.

Running water – mesotrophic (RWM1 & RWM2; TN1)

7.1.4 The Emm Brook spanned the western side of the site and exhibited a straight, modified channel lacking in established marginal or submerged vegetation (**Photograph 1; RWM1**). The channel had an approximate maximum width of 2.5m and a range of 15-30cm in depth. The vegetation growing on its banks included common woodland species such as lesser celandine (*Ranunculus ficaria*), ivy (*Hedera helix*), cleavers (*Galium aparine*) and dock (*Rumex* sp.). The weir was situated near the Woosehill Spine Road to the north of the site and formed a pool within the woodland (**Photograph 2; TN1**). A foul pipe was situated in the south of the site and also acted as a weir in the channel (**TN2**).

7.1.5 The paleo channel of the Emm Brook meandered through the woodland and parkland to the east of the main channel (**Photograph 3; RWM2**). The channel had a variety of marginal and submerged vegetation, including:

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marsh marigold (*Caltha palustris*), floating sweet-grass (*Glyceria fluitans*), grey sedge (*Carex divulsa*), hemlock water-dropwort (*Oenanthe crocata*), reed canary-grass (*Phalaris arundinacea*), borage (*Borago officinalis*), water mint (*Mentha aquatica*) and remote sedge (*Carex remota*). A raised foul pipe crossed the channel in the woodland to the north of the site (**Photograph 4; TN3**), and just south of this, two large fallen tree trunks lay across the channel (large woody material).

Standing water – mesotrophic (SWM1)

- 7.1.6** A section of the paleo channel had been excavated to create a pond in the centre of the site (**Photograph 5; SWM1**). The pond had marginal vegetation including: marsh marigold (*Caltha palustris*), water mint (*Mentha aquatica*), hard rush (*Juncus inflexus*), common reed (*Phragmites australis*), hemlock water-dropwort (*Oenanthe crocata*), *Iris* sp. and floating sweet-grass (*Glyceria fluitans*). The grassland along the western side of the pond had a greater variety of species (likely from seeding) than the surrounding amenity land (**TN4**), such as: black knapweed (*Centaurea nigra*), grape hyacinth (*Muscari* sp.), oxeye daisy (*Leucanthemum vulgare*), yarrow (*Achillea millefolium*) and willowherb (*Epilobium* sp.). Two alder trees (*Alnus glutinosa*) stood either side of the path next to the pond (crossing the paleo channel) possessing potential bat roost features behind thick stems of cut ivy (*Hedera helix*) (**Photograph 6; TN5**).

Amenity grassland (AM1)

- 7.1.7** Large areas of the site consisted of amenity grassland (**Photograph 7; AM1**) defined by abundant perennial ryegrass (*Lolium perenne*) and frequent cock's-foot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*). The plant community also comprised occasionally distributed species, including: dandelion (*Taraxacum* agg.), cow parsley (*Anthriscus sylvestris*), common hogweed (*Heracleum sphondylium*), greater plantain (*Plantago major*), creeping buttercup (*Ranunculus repens*), dock (*Rumex* sp.), common ragwort (*Senecio jacobaea*) and white clover (*Trifolium repens*).

Semi-natural broadleaved woodland (BW1 & BW2)

- 7.1.8** There was a parcel of semi-natural broadleaved woodland in the south of the site (**Photograph 8; BW1**) with a tree and shrub assemblage comprising

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abundant willow (*Salix* sp.); occasional alder (*Alnus glutinosa*), hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*). There were several large poplar (*Populus* sp.) specimens that likely originated from planting and the eastern edge of the woodland was dominated by dense blackthorn (*Prunus spinosa*). The ground flora consisted of bramble (*Rubus fruticosus* agg.), meadowsweet (*Filipendula ulmaria*), lords-and-ladies (*Arum maculatum*), cleavers (*Galium aparine*), wood avens (*Geum urbanum*) and common nettle (*Urtica dioica*).

- 7.1.9** A parcel of semi-natural broadleaved woodland grew in the north of the site (**Photograph 9; BW2**) with a tree assemblage comprising frequent alder (*Alnus glutinosa*), occasionally distributed species such as holly (*Ilex aquifolium*), pedunculate oak (*Quercus robur*), willow (*Salix* sp.), yew (*Taxus baccata*) and elm (*Ulmus* sp.), and locally-frequent poplar (*Populus* sp.). There was an elder (*Sambucus nigra*) understorey with ground flora consisting of occasional lesser celandine (*Ranunculus ficaria*), cleavers (*Galium aparine*), wood avens (*Geum urbanum*), ivy (*Hedera helix*), ground-elder (*Aegopodium podagraria*), common nettle (*Urtica dioica*), bramble (*Rubus fruticosus* agg.), lords-and-ladies (*Arum maculatum*) and ground-ivy (*Glechoma hederacea*).

Scattered broadleaved trees (SBW1 & SBW2)

- 7.1.10** The paleo channel of the Emm Brook had scattered broadleaved trees and bramble (*Rubus fruticosus* agg.) scrub lining its banks in the centre of the site (**Photograph 10; SBW1**), to the north of the pond. The scattered tree and shrub assemblage consisted of frequent alder (*Alnus glutinosa*), occasional elder (*Sambucus nigra*) and rare hazel (*Corylus avellana*). There was a large, mature oak tree with thick ivy (and potential other features) offering potential opportunities to roosting bats (**Photograph 11; TN6**).
- 7.1.11** The main channel of the Emm Brook had scattered broadleaved trees lining its banks from the southern survey boundary up to the woodland in the north of the site (**Photograph 12; SBW2**). The tree and shrub species present, included occasional hawthorn (*Crataegus monogyna*), ash (*Fraxinus excelsior*), pedunculate oak (*Quercus robur*), willow (*Salix* sp.) and elder (*Sambucus nigra*). The bankside vegetation comprised frequent cleavers (*Galium aparine*) and bramble (*Rubus fruticosus* agg.). occasional

meadowsweet (*Filipendula ulmaria*), common nettle (*Urtica dioica*) and hemlock water-dropwort (*Oenanthe crocata*). A group of planted, semi-mature hornbeam (*Carpinus betulus*) grew in the grassland on the western side of the channel.

Incidental fauna

- 7.1.12** During the survey, incidental bird sightings were recorded which included: great spotted woodpecker (*Dendrocopos major*), wren (*Troglodytes troglodytes*), chiffchaff (*Phylloscopus collybita*), great tit (*Parus major*), blackbird (*Turdus merula*), robin (*Erithacus rubecula*), wood pigeon (*Columba palumbus*), buzzard (*Buteo buteo*) and red kite (*Milvus milvus*).

8 DISCUSSION

8.1 Assessment of Existing Ecological Value

Habitats

- 8.1.1** The pre-existing data has shown the site is not statutorily or non-statutorily designated for its wildlife interest and therefore not recognised as being of international, national or county level wildlife importance. However, the Emm Brook and the broadleaved woodland on site are classified as a Habitats of Principal Importance for conservation (HPI) as defined under the NERC Act 2006 and therefore of local conservation importance within the borough.
- 8.1.2** A large extent of the site comprised amenity grassland with a plant community supporting relatively low numbers of native grassland and herbaceous species, typical of regularly mown recreational areas. These managed open areas lack the structural and species diversity to support a rich assemblage of flora and fauna and thus are considered to be of negligible ecological value.
- 8.1.3** The scattered trees and scrub bordering the Emm Brook had ecological value at the site level with the potential to support a range of riparian and woodland species of conservation importance. There was no evidence of Himalayan balsam – a invasive non-native species listed under Schedule 9 of Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) that is typically associated with watercourses - growth during the walkover survey but the survey findings are constrained by the timing of the survey and this will be taken into account.

Bats

- 8.1.4** The riparian habitat (scattered trees and scrub) and woodland on site provide commuting and foraging habitat for bats, and potential to offer suitable roosting features. There were two alder (*Alnus glutinosa*) trees and an oak (*Quercus robur*) tree on site with visible roost features (i.e. thick ivy stems; **TN5 & TN6**). It is also possible that there were further trees within the woodland that possess potential bat roosting features.

Hazel Dormice

- 8.1.5** The site offers very limited opportunities for hazel dormice (*Muscardinus avellanarius*), in particular, habitat suited to their highly arboreal lifestyle and foraging requirements. The woodland on site lacks a dense understorey required for individuals to traverse without descending to the ground, and has low species diversity and therefore unlikely to provide adequate foraging required for successional feeding. Although suitable habitat is present in the form of an area of dense blackthorn in the woodland and denser patches of bramble understorey distributed along the Emm Brook paleo channel, the habitat on site is lacking in abundance of the main dormice food sources, i.e. hazel, oak, bramble and honeysuckle (English Nature 2006).
- 8.1.6** Furthermore, the site is isolated from the wider landscape by suburban surroundings and TVERC holds no records of dormice within a 2km radius of the site. Therefore it is considered that the sub-optimal habitat on site is unlikely to support dormice, which are known to live at low numbers even in optimal habitats.

Amphibians

- 8.1.7** The pond and Emm Brook paleo channel offer opportunities for amphibians – including great crested newt (GCN; *Triturus cristatus*), which receives full legal protection – to breed on site. Furthermore, the Thames Valley Environmental Records Centre (TVERC) holds records of GCN (eggs and live specimens) relating to land approximately 1.2km to the northwest of the site indicating the potential for GCNs to be present in the local area. The scattered trees, scrub and woodland provide terrestrial habitat suitable for any amphibians if present in the pond and paleo channel (further survey would be required to determine if great crested newts are present or likely to be absent – refer to recommendations in **Section 9.3**).
- 8.1.8** Other amphibians of conservation importance such as the common toad (*Bufo bufo*) have been historically recorded within the 2km radius search area, and as such, may use the pond and paleo channel as a breeding resource and the woodland as hibernation habitat. Common frog (*Rana temporaria*) spawn was observed in the Emm Brook paleo channel during

the survey, confirming the presence of amphibians on site. The current parkland management regime means that amphibians are unlikely to be present in the areas of open amenity grassland.

Reptiles

- 8.1.9** The scattered trees (including scrub along the Emm Brook paleo channel) and woodland habitats on site provide cover for reptiles but the parkland management regime means the grassland's short sward lacks the structural diversity suited to reptiles. The pond and Emm Brook paleo channel (with confirmed frog spawn) provides grass snakes on site with high quality foraging habitat and areas of dense, undisturbed riparian habitat to traverse.
- 8.1.10** There are records of common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*) and grass snake (*Natrix helvetica*) within a 2km radius of the site. The closest records are of slow-worms, approximately 750 metres northwest, across the Reading Road, which poses a considerable barrier to movement south to the site. Despite an absence of reptile records on or close to the site, there is still potential for these widespread species to be present on site.

Badgers (and Other Mammals)

- 8.1.11** There were no signs of activity by badger (*Meles meles*) on site, such as latrines or sett entrances, and the badger records are either located on the other side of the A329 Motorway (a significant barrier to movement), or in the section of countryside between Barkham and Wokingham. Therefore, despite some suitable wooded habitat, it is considered highly unlikely that badgers are present in such an isolated site and in the absence of any visible signs of their presence.
- 8.1.12** The woodland on site is a habitat suitable for a range of small mammal species – including SPI, such as the hedgehog (*Erinaceus europaeus*), which has been recorded in Woosehill Meadows beyond the site boundary to the south and in the surrounding built-up areas.
- 8.1.13** The Emm Brook (and the paleo channel) provide habitat suitable for semi-aquatic species such as otter (*Lutra lutra*) and water vole (*Arvicola*

amphibius). However, no signs of otter (i.e. spraint or prints), or of water vole (i.e. latrines or burrows) were identified during the walkover. The modified channel offers no marginal or submerged vegetation to offer shelter to either species in an area with high levels of human disturbance. The suitability of the channel for these riparian mammals increases upstream with the presence of submerged and emergent vegetation but there is still heavy disturbance in the channel from dogs. Furthermore, the Emm Brook is currently of poor ecological status under the Water Framework Directive (WFD Status information (C2 2015 data)) and TVERC holds no records for these species within the 2km search radius; therefore it is considered unlikely that either of these species is present on site. Management of the watercourses and other habitat on site should take into account the potential future expansion of these two species from recent and historical records further north in the Borough.

Nesting Birds

- 8.1.14** The woodland, scattered trees and scrub provide nesting and foraging opportunities for common and widespread bird species, and may support some notable woodland species. The isolated site, in combination with the high level of disturbance, is considered highly unlikely to support bird communities of high conservation importance and therefore highly unlikely to be of ecological value to birds beyond the site level. The current channel does offer potential foraging habitat for kingfishers, but the shallow earth banks in both channels were not suitable for breeding kingfishers.

Invertebrates

- 8.1.15** The woodland has deadwood from fallen branches (including the large woody material) and brush piles which provide habitat suitable for stag beetle (*Lucanus cervus*) larvae – a locally recorded SPI. The parkland management regime means that the grassland is unlikely to support an important invertebrate assemblage.

8.2 Impact of Proposals

Overview

- 8.2.1** The Woosehill Fish Passage Improvements project led by the South East Rivers Trust (SERT) aims to provide fish passage past the weir by reconnecting the paleo channel (former route of the river) to the Emm Brook, which runs through parkland to the east of the current modified channel. The project proposals involve excavation works to reconnect the paleo channel to the Emm Brook and remove sediment in the paleo channel down to the former gravel bed. Some tree and scrub removal work will be required in order for a hydraulic excavator to gain access to the paleo channel. Furthermore, any large woody material in the paleo channel will be retained as features within the channel.

Habitats

- 8.2.2** The proposals to allow fish passage in the Emm Brook will require some tree and scrub removal in order for a hydraulic excavator to gain access to the paleo channel. The vegetation clearance in the woodland – an SPI – will be minimal not affecting the woodland character, however, the project is also aiming to combine appropriate management of the woodland to improve the structural and species diversity. All mature trees will be retained wherever possible and it is recommended that the scrubby understorey is opened up in areas, particularly to the north of the existing pond, to reduce the shading of the channel and encourage woodland flora to establish (refer to recommendation **Section 9.1**). This was already visible on the banks adjacent to the mature oak tree (TN6) and the open area around the pond, which had been enhanced by seeding/plug planting.
- 8.2.3** Himalayan balsam was not visible during the survey but as the survey was undertaken at a time of year when any previously cleared areas may not yet be visible, its presence must be considered prior to any excavation of the banks. **NB. SERT always follow strict biosecurity procedures with regards to invasive species and general pollution prevention guidelines.**

8.2.4 The project will result in the loss of a pond and this type of wetland habitat offers niches for a range of different species compared with the running water habitat, and therefore its loss without replacement would lead to loss of biodiversity interest. There is scope to create a replacement pond on site to ensure this habitat is not lost. If feasible, the existing modified channel could be managed as additional wetland habitat and has scope for the newly created pond (refer to recommendation in **Section 9.1**).

Bats

8.2.5 The proposals are unlikely to have an adverse impact on the availability of foraging habitat for bats as the woodland is to be retained in the long-term. However, several trees in the woodland and scattered along the paleo channel had features that were considered suitable for roosting bats, and thus, removal of trees in the woodland to allow for excavation of the channel, could result in the disturbance, injury or death of roosting bats, and therefore further survey is required (refer to recommendation in **Section 9.2**).

Hazel Dormice

8.2.6 Dormice are highly unlikely to be present on site and therefore it is considered that the proposals will not have an adverse impact on dormice.

Amphibians

8.2.7 The pond (excavated in the paleo channel) will be lost as part of the proposals and the work to the paleo channel will increase the flow of water in the channel. If breeding great crested newts are using the channel and/or pond on site, the proposed works may harm individual newts or even the local population if present. Further survey of the pond and paleo channel is required to determine the presence and/or likely absence of great crested newts (refer to recommendations in **Section 9.3**). The increased flow in the channel will also have an impact on common frogs (confirmed present during the walkover) and common toads if present reducing the likelihood of the species spawning and/or reducing breeding success rates (refer to recommendations in **Section 9.3**).

- 8.2.8** The removal of trees and large woody material, and channel excavation works, could impact on hibernating amphibians and therefore sensitive timing is recommended (refer to recommendations in **Section 9.3**)

Reptiles

- 8.2.9** The work to restore the paleo channel involves activities that have the potential to harm reptiles in the absence of mitigation. Reptiles hibernating in tree roots or amongst large woody material could be impacted by tree removal and the use of excavating machinery. If avoidance measures are adopted during the works, the proposals are not considered likely to cause any adverse impacts to reptiles (refer to recommendations in **Section 9.4**).

Nesting Birds

- 8.2.10** The woodland, scattered trees and scrub provide nesting opportunities for common and widespread bird species adapted to woodland habitats and therefore any removal could lead to bird nests being damaged, and to the disturbance of nesting birds, and as such necessary precautions must be adopted. Furthermore, noise and vibrations from the hydraulic excavator may disturb nesting birds in proximity to the paleo channel (refer to recommendations in **Section 9.5**).

Badgers (and Other Mammals)

- 8.2.11** The survey results show badgers are highly unlikely to be present on site and therefore it is considered that the proposals will not have an adverse impact on badgers.

Invertebrates

- 8.2.12** If stag beetle larvae are present in the deadwood along the paleo channel (i.e. large woody features), the removal of these features could lead to the loss of larvae and therefore precautions to prevent this should be adopted (refer to recommendations in **Section 9.6**).

9 RECOMMENDATIONS

9.1 Habitat Mitigation

9.1.1 To compensate for the loss of the pond on site following the channel diversion through the existing pond, a replacement pond should be created on site. There is scope to create a pond in the existing modified channel as part of the habitat enhancement in this area, and the feasibility of this, and further wetland habitat, is being investigated. Ideally this pond would be created and established overwinter before the amphibian breeding season in spring to provide continued habitat on site for amphibians throughout the works.

9.1.2 To compensate for the loss of scrub habitat during the opening up of the channel, used as a nesting and foraging resource by woodland birds, hazel and willow planting is encouraged on site. The planting could be positioned along the boundaries of housing to the east of the paleo channel, which would both link to the existing woodland on site and create screening for local residents.

9.2 Bats

9.2.1 A ground-level inspection of all trees to be removed or affected by the proposals should be undertaken by an ecologist in order to confirm absence/presence of bat roosting potential. If any trees are identified as having bat roost potential during the inspection and are proposed to be removed or affected by the works, then further survey should be undertaken to establish if roosting bats are present or likely to be absent.

9.2.2 Depending on the condition of the tree and type of features identified, a climbing inspection by a licensed tree climber may be suitable to determine presence or likely absence of roosting bats. An alternative survey approach would comprise emergence and/or re-entry surveys; such surveys should be carried out in the period between May and September. At least one visit would be required between May and August for trees of low potential; at least two surveys, with at least one visit between May and August, should be carried out for trees with moderate potential; and at least three surveys,

with at least two visits between May and August, should be carried out for trees with high potential (Collins 2016).

- 9.2.3** If roosting bats are shown to be present, tree felling or arboricultural works considered disturbing to the roost, or would result in the loss of the roost, should take place only after the grant of a European Protected Species licence issued by Natural England. Under the terms of the licence, the impact of the work on bats should be mitigated by excluding bats in advance where feasible, taking a precautionary soft-felling approach under the supervision of a licensed ecologist and providing alternative roosting sites e.g. tree-mounted bat boxes.

9.3 Amphibians

- 9.3.1** The presence or likely absence of great crested newts in the pond and paleo channel on site should be determined using appropriate survey techniques e.g. eDNA analysis of water samples taken between April and late June, and followed by traditional presence/absence surveys using trapping torchlight, egg searching and/or netting between mid-March and mid-June if eDNA analysis reveals a positive result (English Nature 2001). If great crested newts are found to be present, the loss of the pond habitat and changes to the paleo channel are likely to require a European Protected Species mitigation licence to proceed lawfully.

- 9.3.2** Furthermore, if surveys confirm the presence of great crested newts, the woodland and riparian habitat has potential to provide sheltering and overwintering habitat for newts and other amphibians. In the absence of appropriate mitigation, tree and scrub removal, and use of heavy machinery in the woodland, both have the potential to kill and/or injure amphibians, including great crested newts in the terrestrial phase of their yearly cycle and thereby contravene the strict European and national legislation protecting this species and its habitats. In order to avoid this, it is recommended that the following approach be adopted:

- Ground/tree root clearance works should be timed to avoid the hibernation period and should be undertaken when animals are least likely to be present (i.e. works should be undertaken in March-July and once nesting bird absence has been confirmed) when the majority of amphibians will be within aquatic habitats (the breeding season).

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- Prior to works, any logs, debris and leaf litter in the area required clearance should be carefully search by hand by an appropriately licensed ecologist.
- A destructive search of ground to be removed (i.e. sediment in the paleo channel) will then be undertaken using a hydraulic extractor with a toothed bucket in the presence of an appropriately licensed ecologist.

9.4 Reptiles

9.4.1 The site has the potential to provide foraging and sheltering habitat for low numbers of reptiles, and hibernation habitat in the woodland. Given that reptiles are known to be present in the wider area, there is the potential that small numbers of reptiles could be killed and/or injured during activities that involve clearance and excavation in the absence of the following precautionary measures:

- Tree and scrub removal, and excavation work with heavy machinery, should be undertaken between March and October (once nesting bird absence has been confirmed) when reptiles are active avoiding the hibernation period when they may be hibernating in the root boles.
- Any reptiles found will be moved to suitable habitat close to, but outside the site or working area boundary (e.g. undisturbed areas of woodland nearby).

9.4.2 Adhering to the guidance outlined above will ensure that reptiles are protected from reckless killing and injury during any subsequent works.

9.5 Nesting Birds

9.5.1 Any tree or dense bramble removal required should be completed outside of the peak bird nesting season (March to August inclusive) or if that is unavoidable, only following an inspection by an ecologist confirming that there is no current nesting activity. In the event that nesting birds are discovered prior to or during the course of any work, work affecting the nesting site should stop immediately and should continue only once the bird nesting has finished i.e. young have fledged and left the nest.

9.6 Invertebrates

- 9.6.1** Any clearance of deadwood or removal of large woody material should be completed with an ecologist present so that if stag beetle larvae are uncovered, the ecologist can carefully translocate the larvae to a suitable natural or purpose-built habitat close by (in line with amphibian and reptile precautions in Section 9.3 and 9.4).

9.7 Ecological Enhancement

- 9.7.1** The aim to improve fish passage in the Emm Brook by restoring the paleo channel provides a range of opportunities for the enhancement of the site's biodiversity value. Appropriate ecological enhancements for the site were discussed with the Council's Ecology Officer and these can be carried out in a phased approach with some elements included in a long-term management plan for the site. Taking into account the findings of the walkover survey and current ecological value and habitat condition of the site, the inclusion of the following recommendations would be of ecological benefit to the site:

- The amenity grassland could be enhanced by introducing a cutting regime whereby the grass is cut after flowers have set seed, for example until after mid-July. Plug planting of spring flowering plant species in areas with minimal human disturbance will be both ecologically beneficial and of amenity value to the general public using the site; the inclusion of yellow rattle (*Rhinanthus minor*) can help the wildflower species to establish by reducing the grass growth. The location of grassland enhancements would be most effective on the woodland and channel boundaries and avoiding the potential new Greenways route proposed for the site. There is scope to widen the grassland planting and management regime into Woosehill Meadows to the south as the grassland area widens and there are fewer constraints on the land-use;
- The flood relief channel (current modified channel) could act as a wetland area. The channel could be re-profiled and planted with emergent herbaceous vegetation dominated by grasses, sedges and reeds sourced from suppliers providing appropriately sourced UK stock of local provenance. The channel is heavily shaded and selective thinning will be necessary to ensure successful uptake; the use of coir

mats with prepared seed beds suitable for seasonally inundated habitat will assist with a quick uptake and establishment of plants in this area. A phased approach to the existing channel enhancement following the channel diversion would be the most effective approach in determining appropriate habitat creation in this area, and if suitably wet, reedbed creation would assist with water treatment of the outfalls that would remain in the modified channel - the feasibility of the wetland habitat is being investigated;

- The provision of bat and bird boxes on mature trees in the woodland to enhance the site for roosting bats and nesting birds. To preserve the 'naturalness' of the woodland and provide discrete roosting and nesting features in a public open space, the use of bark boxes for both bats and birds should be considered (www.barkboxes.co.uk); and
- Stag beetle habitat could be introduced into the woodland by reusing large woody material from the excavated channel and digging the logs into the ground in a vertical position.

10 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. 3rd Edition. Bat Conservation Trust, London.

English Nature (2001). Great crested newt mitigation guidelines. English Nature, Peterborough.

English Nature (2006). *Dormouse Conservation Handbook*. English Nature, Peterborough.

Froglife (1999). *Froglife Advice Sheet 10; Reptile Survey; An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*.

Joint Nature Conservation Committee (JNCC) (2010). *Handbook for Phase 1 habitat survey – A technique for environmental audit*. JNCC, Peterborough.

Langton, T., Beckett, C. & Foster, J. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Mitchell-Jones, A. J. (2004). *Bat mitigation guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3rd Edition)*. JNCC, Peterborough.

APPENDIX 1 - SITE PHOTOGRAPHS



1. Main (modified) channel of the Emm Brook (RWM1).



2. Weir and pool in the main channel (TN1).



3. Paleo channel of the Emm Brook (RWM2).



4. Raised foul pipe across paleo channel (TN3).



5. Pond within course of paleo channel (SWM1).



6. Thick ivy on alder trees either side of path next to pond (TN6).



7. Open area of amenity grassland (AM1).



8. Semi-natural broadleaved woodland in south of site (BW1).



9. Semi-natural broadleaved woodland in north of site (BW2).



10. Scattered broadleaved trees along banks of paleo channel (SBW1).



11. Large mature oak tree (TN6).



12. Scattered broadleaved trees along banks of main channel (SBW2).

APPENDIX 2 - PHASE 1 HABITAT SURVEY PLAN



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Key:

- Target notes
- Running water - mesotrophic
- M Standing water - mesotrophic
- A Amenity grassland
- Broadleaved woodland - semi-natural
- Broadleaved scattered trees

Emm Brook, Woosehill
Phase 1 Habitat Map

April 2019

JOHN WENMAN
ecological consultancy

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PHASE 1 HABITAT SURVEY NOTES

Habitat code	Habitat Description
RWM1	Running water – mesotrophic – The Emm Brook spanned the western side of the site and exhibited a straight, modified channel lacking in established marginal or submerged vegetation (Photograph 1). Species recorded: lesser celandine (<i>Ficaria verna</i>), ivy (<i>Hedera helix</i>), cleavers (<i>Galium aparine</i>) and dock (<i>Rumex</i> sp.).
RWM2	Running water – mesotrophic – The paleo channel of the Emm Brook meandered through the woodland and parkland to the east of the main channel (Photograph 3). Species recorded: marsh marigold (<i>Caltha palustris</i>), floating sweet-grass (<i>Glyceria fluitans</i>), grey sedge (<i>Carex divulsa</i>), hemlock water-dropwort (<i>Oenanthe crocata</i>), reed canary-grass (<i>Phalaris arundinacea</i>), borage (<i>Borago officinalis</i>), water mint (<i>Mentha aquatica</i>), remote sedge (<i>Carex remota</i>) and willowherb (<i>Epilobium</i> sp.).
SWM1	Standing water - mesotrophic – A section of the paleo channel had been excavated to create a pond in the centre of the site (Photograph 5). Species recorded: marsh marigold (<i>Caltha palustris</i>), water mint (<i>Mentha aquatica</i>), hard rush (<i>Juncus inflexus</i>), common reed (<i>Phragmites australis</i>), hemlock water-dropwort (<i>Oenanthe crocata</i>), <i>Iris</i> sp. and floating sweet-grass (<i>Glyceria fluitans</i>).
AM1	Amenity grassland – Large areas of the site consisted of amenity grassland (Photograph 7) Species recorded: abundant perennial ryegrass (<i>Lolium perenne</i>); frequent cock's-foot (<i>Dactylis glomerata</i>) and Yorkshire fog (<i>Holcus lanatus</i>); occasional dandelion (<i>Taraxacum</i> agg.), cow parsley (<i>Anthriscus sylvestris</i>), common hogweed (<i>Heracleum sphondylium</i>), greater plantain (<i>Plantago major</i>), creeping buttercup (<i>Ranunculus repens</i>), dock (<i>Rumex</i> sp.), common ragwort (<i>Senecio jacobaea</i>) and white clover (<i>Trifolium repens</i>).
BW1	Semi-natural broadleaved woodland – There was a parcel of semi-natural broadleaved woodland in the south of the site (Photograph 8). Tree and shrub species recorded: abundant willow (<i>Salix</i> sp.); occasional alder (<i>Alnus glutinosa</i>), hawthorn (<i>Crataegus monogyna</i>) and elder (<i>Sambucus nigra</i>), poplar (<i>Populus</i> sp.); and locally-abundant blackthorn (<i>Prunus spinosa</i>). Ground flora species recorded: bramble (<i>Rubus fruticosus</i> agg.), meadowsweet (<i>Filipendula ulmaria</i>), lords-and-ladies (<i>Arum maculatum</i>), cleavers (<i>Galium aparine</i>), wood avens (<i>Geum urbanum</i>) and common nettle (<i>Urtica dioica</i>).
BW2	Semi-natural broadleaved woodland – A parcel of semi-natural broadleaved woodland was present in the north of the site (Photograph 9) Tree species recorded: frequent alder (<i>Alnus glutinosa</i>); occasional holly (<i>Ilex aquifolium</i>), pedunculate oak (<i>Quercus robur</i>), willow (<i>Salix</i> sp.), yew (<i>Taxus baccata</i>) and elm (<i>Ulmus</i> sp.); and locally-frequent poplar (<i>Populus</i> sp.). Other species recorded: frequent elder (<i>Sambucus nigra</i>); occasional lesser celandine (<i>Ranunculus ficaria</i>), cleavers (<i>Galium aparine</i>), wood avens (<i>Geum urbanum</i>), ivy (<i>Hedera helix</i>), ground elder (<i>Aegopodium podagraria</i>), common nettle (<i>Urtica dioica</i>), bramble (<i>Rubus fruticosus</i> agg.), lords-and-ladies (<i>Arum maculatum</i>) and ground ivy (<i>Glechoma hederacea</i>).
SBW1	Scattered broadleaved trees – The paleo channel of the Emm Brook had scattered broadleaved trees and bramble (<i>Rubus fruticosus</i> agg.) scrub lining its banks in the centre of the site (Photograph 10). Species recorded: frequent alder (<i>Alnus glutinosa</i>); occasional elder (<i>Sambucus nigra</i>); rare hazel (<i>Corylus avellana</i>) and pedunculate oak (<i>Quercus robur</i>).
SBW2	Scattered broadleaved trees – The main channel of the Emm Brook had scattered broadleaved trees lining its banks from the southern survey boundary up to the woodland in the north of the site (Photograph 12). Species recorded: frequent cleavers (<i>Galium aparine</i>) and bramble (<i>Rubus fruticosus</i> agg.); occasional hawthorn (<i>Crataegus monogyna</i>), ash (<i>Fraxinus excelsior</i>), pedunculate oak (<i>Quercus robur</i>), willow (<i>Salix</i> sp.), elder (<i>Sambucus nigra</i>), meadowsweet (<i>Filipendula ulmaria</i>), common nettle (<i>Urtica dioica</i>), hemlock water-dropwort (<i>Oenanthe crocata</i>); locally-frequent hornbeam (<i>Carpinus betulus</i>).
TN1	A weir and pool in the main Emm Brook channel (Photograph 2).
TN2	A foul pipe in the main Emm Brook channel.
TN3	A raised foul pipe and two large fallen tree trunks in the Emm Brook paleo channel (large woody material) (Photograph 4).
TN4	Grassland along the western side of the pond with a greater variety of species (likely from seeding) than the surrounding amenity land (TN4).
TN5	Two alder trees (<i>Alnus glutinosa</i>) next to the pond (crossing the paleo channel) possessing potential bat roost features (Photograph 6).
TN6	A large, mature oak tree with thick ivy (and potential other features) offering potential opportunities to roosting bats (Photograph 11).

APPENDIX 3 - PLANT SPECIES RECORDED DURING THE SURVEY

Plant common name	Scientific name
Alder	<i>Alnus glutinosa</i>
Ash	<i>Fraxinus excelsior</i>
Blackthorn	<i>Prunus spinosa</i>
Borage	<i>Borago officinalis</i>
Bramble	<i>Rubus fruticosus</i> agg.
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common hogweed	<i>Heracleum sphondylium</i>
Common nettle	<i>Urtica dioica</i>
Common ragwort	<i>Senecio jacobaea</i>
Common reed	<i>Phragmites australis</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Dandelion	<i>Taraxacum</i> agg.
Dock	<i>Rumex</i> sp.
Elder	<i>Sambucus nigra</i>
Elm	<i>Ulmus</i> sp.
Floating sweet-grass	<i>Glyceria fluitans</i>
Greater plantain	<i>Plantago major</i>
Grey sedge	<i>Carex divulsa</i>
Ground elder	<i>Aegopodium podagraria</i>
Ground ivy	<i>Glechoma hederacea</i>
Hard rush	<i>Juncus inflexus</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Hemlock water-dropwort	<i>Oenanthe crocata</i>
Holly	<i>Ilex aquifolium</i>
Hornbeam	<i>Carpinus betulus</i>
Iris	<i>Iris</i> sp.
Ivy	<i>Hedera helix</i>
Lesser celandine	<i>Ranunculus ficaria</i>
Lords-and-ladies	<i>Arum maculatum</i>
Marsh marigold	<i>Caltha palustris</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Pedunculate oak	<i>Quercus robur</i>
Perennial ryegrass	<i>Lolium perenne</i>
Poplar	<i>Populus</i> sp.
Reed canary-grass	<i>Phalaris arundinacea</i>
Remote sedge	<i>Carex remota</i>
Water mint	<i>Mentha aquatica</i>
White clover	<i>Trifolium repens</i>
Willow	<i>Salix</i> sp.
Willowherb	<i>Epilobium</i> sp.
Wood avens	<i>Geum urbanum</i>
Yew	<i>Taxus baccata</i>
Yorkshire fog	<i>Holcus lanatus</i>

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**Emm Brook
Woosehill
Wokingham
Berkshire
RG41 3DA**

Phase 2 Ecological Surveys (Bats and Great Crested Newts)

Ref: R2220/b

May 2019

**JOHN WENMAN**
ecological consultancy

1	INTRODUCTION	3
1.1	Background.....	3
1.2	Site Location and Context	3
2	LEGISLATIVE BACKGROUND	5
2.1	Bats.....	5
2.2	Great Crested Newts	6
2.3	Report Format.....	7
3	SURVEY METHOD	8
3.1	Daylight Bat Survey	8
3.2	Bat Survey Constraints.....	9
3.3	Great Crested Newt Habitat Suitability Index (HSI) Assessment.....	9
3.4	Great Crested Newt eDNA Sampling Survey.....	10
3.5	Great Crested Newt Survey Constraints	10
4	SURVEY FINDINGS	11
4.1	Bat Survey Findings	11
4.2	Great Crested Newt Habitat Suitability Index (HSI) Assessment.....	14
4.3	Great Crested Newt eDNA Sampling Findings	15
5	DISCUSSION AND RECOMMENDATIONS	16
5.1	Bats.....	16
5.2	Great Crested Newts	17
6	REFERENCES	18
	APPENDIX 1 – TREE INSPECTION PHOTOGRAPHS	19
	APPENDIX 2 – TREE INSPECTION SURVEY PLAN	27
	APPENDIX 3 – GREAT CRESTED NEWT HABITAT SUITABILITY INDEX (HSI) SCORES	28
	APPENDIX 4 – GREAT CRESTED NEWT eDNA TECHNICAL REPORT	29

1 INTRODUCTION

1.1 Background

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Toby Hull of the South East Rivers Trust (SERT) to undertake Phase 2 ecological surveys regarding bats and great crested newts (GCNs) on land next to the Emm Brook, in Wokingham, Berkshire.
- 1.1.2** These surveys were commissioned in relation to the Woosehill Fish Passage Improvements project led by SERT with the support of the Environment Agency (EA). The main aim of the project is to reconnect the Emm Brook paleo channel in order to by-pass the weir and restore fish passage. The modified channel would act as a flood relief channel.
- 1.1.3** The Greenways Project is in progress with the aim of creating a traffic-free multiuser route connecting the new Arborfield Garrison development to the Finchampstead Baptiste Centre via California Country Park (now completed) and to North Wokingham via Woosehill (consultation has closed and the route is in planning stages). This will involve the construction of a multi-use path through Woosehill Meadows and therefore all proposals relating to the fish passage improvement scheme will need to consider this proposed route.
- 1.1.4** This report follows the preliminary ecological appraisal completed by John Wenman Ecological Consultancy LLP in April 2019 (reported separately: R2207c), which identified the potential for the site to support roosting bats and great crested newts. Further survey was recommended in order to determine bat roost potential of trees likely to be impacted by the proposals and aid in guiding the approach to tree works. In addition, further survey was recommended to confirm if great crested newts were present in the pond and paleo channel on site.

1.2 Site Location and Context

- 1.2.1** The site is part of the amenity parkland known as 'Woosehill Meadows' to the east of Morrisons supermarket in Woosehill, Wokingham (OS grid reference: SU 79824 69269).
- 1.2.2** The Emm Brook river runs through Woosehill Meadows in the centre of the Wokingham suburb of Woosehill. The wider extent of Woosehill Meadows includes open fields and woodland to the south of the site. The Woosehill Spine Road borders the northwest of the site and the Reading Road (A329) is to the

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north. A railway line bordered by established woodland lies approximately 210 metres to the northeast and connects to Holt Copse and Joel Park Local Nature Reserve (LNR) approximately 400 metres to the east of the site. Approximately 235 metres to the west, lies a small lake with wooded banks called Windmill Pond.

- 1.2.3** Overall, the surrounding area offers pockets of habitat suitable for use by a range of fauna adapted to suburban environments.

2 LEGISLATIVE BACKGROUND

2.1 Bats

2.1.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

2.1.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;
- **Regulation 55(9)(b)** - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment".

2.1.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that European Protected Species licensing is necessary before granting planning permission.

- 2.1.4** European Protected Species mitigation licence applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days.
- 2.1.5** Licensable projects affecting small numbers of seven commonly occurring species occupying roosts of low conservation importance may fall under the remit of the Bat Mitigation Class Licence (WML-CL21). The Class Licence permits 'Registered Consultants' or accredited agents appointed by them to carry out licensable operations on site on behalf of clients following the registration of sites with Natural England at least 15 working days before the work is due to start.
- 2.1.6** Survey data supporting EPS licence applications or the registration of the site under the Bat Mitigation Class Licence (WML-CL21) must be up to date i.e. have been conducted within the current or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

2.2 Great Crested Newts

2.2.1 Great crested newts receive full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation (Natural Habitats &c.) Regulations 2017 ('Habitat Regulations') (as amended). These make it illegal to:

- Intentionally or recklessly kill, injure or take a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a great crested newt; and
- Intentionally or recklessly disturb great crested newts; in particular any disturbance which is likely to impair their ability to survive, breed, reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

2.2.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the

Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is “no satisfactory alternative” to the derogation;
- **Regulation 55(9)(b)** - the derogation “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” and;
- **Regulation 55(9)(b)** – the derogation is for the purposes of “preserving public health or public safety or other imperative reasons for overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

2.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests have been satisfied by an application affecting European Protected Species before granting planning permission.

2.3 Report Format

2.3.1 There follows: details of survey methods in Section 3; details of survey findings in Section 4; and a discussion of the findings and recommendations in Section 5.

2.3.2 The appendices present: tree inspection photograph in Appendix 1, tree inspection survey plan in Appendix 2, great crested newt habitat suitability index (HSI) assessment findings in Appendix 3 and great crested newt eDNA technical report in Appendix 4.

3 SURVEY METHOD

3.1 Daylight Bat Survey

3.1.1 A ground-level inspection of all trees to be removed or affected by the proposals was undertaken on the 18th April 2019 by an ecological registered under Natural England Bat Survey Class Licence CL18 and an assistant ecologist. The bat survey findings are detailed with photographs of the trees shown in **Appendix 1**.

3.1.2 The trees were surveyed from ground-level with the aid of binoculars. Features suitable for roosting bats or evidence of the presence of bats were looked for during the survey

3.1.3 Trees may provide roosting opportunities for bats if they have features such as:

- Cavities caused by woodpeckers, or decay extending upwards from the entrance;
- Rot holes;
- Knot holes arising from shed limbs;
- Hazard beams;
- Vertical or horizontal splits within the trunk or in limbs;
- Dense ivy cover where stems are partially detached and exceed 50mm diameter;
- Areas of loose bark.

3.1.4 Detecting bats within trees during daylight surveys can be extremely difficult, but occasionally the presence of bats can be indicated by the signs such as:

- Staining around cavities;
- Areas of worn or smooth bark;
- Bat droppings.

3.1.5 The trees were assessed for their potential to support bats. The trees were graded according to the following criteria based on criteria created for assessing trees subject to arboricultural work:

Tree category/designation	Details and features
Known or confirmed roost	Bats have been found roosting or seen to emerge/re-enter the tree.
High	Mature tree with one or several features providing highly suitable roosting conditions for bats which are likely to be suitable for use by multiple bats at different periods of the year; has potential to act as a hibernation site.

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Moderate	Mature tree with one or several features providing limited roosting opportunities. Likely to be suitable only as transient roosts for individual or a small number of bats. Use likely to be limited to short periods during the summer; unlikely to be suitable as a hibernation site.
Low	Mature or semi-mature tree with very few opportunities for bats, but occasional minor features such as dead branches that may provide for short term use by individual bats or a large tree with potential for high level features to be present but not visible from ground level.
Negligible	Tree with no visible opportunities for bats.

3.2 Bat Survey Constraints

3.2.1 The bat survey was an assessment of the trees from ground-level only. Full access was not always available to the base of the trees from all sides because of the paleo channel and dense scrub, and although the survey was carried out when trees were in leaf, clear views of the canopies were available and therefore the survey had no significant constraints.

3.3 Great Crested Newt Habitat Suitability Index (HSI) Assessment

3.3.1 A desktop-based assessment of all ponds within 250 metres of the site was undertaken. The desktop-based assessment included an inspection of Ordnance Survey (OS) mapping available on the Multi-Agency Geographic Information for the Countryside (MAGIC) website to determine the number of ponds, and to establish potential, terrestrial habitat links and identify any major barriers between the ponds and the site. In addition to the pond and paleo channel on site, a large pond, Windmill Pond, was identified within the search area to the west.

3.3.2 A site visit was made on the 18th April and a great crested newt Habitat Suitability Index score was calculated for the pond that forms part of the paleo channel on site (**Photographs 1 & 2**). The Index evaluates the general suitability of a pond to support great crested newts (**Appendix 3**). Windmill Pond was discounted due to the Woosehill Spine Road posing a major barrier for traversing newts and because it has undergone great crested newt surveys in the past, which have confirmed a likely absence of newts in the pond (personal communication with Duncan Fisher 2019).

	
<p>1. Pond (connect to paleo channel)</p>	<p>2. Paleo channel</p>

3.4 Great Crested Newt eDNA Sampling Survey

3.4.1 Water samples were collected from the pond and paleo channel on site on the 18th April 2019 and sent off for laboratory eDNA testing using the service provided by SureScreen Scientifics Limited to determine the presence or likely absence of great crested newts.

3.5 Great Crested Newt Survey Constraints

3.5.1 Full access was available to the pond and paleo channel during the Habitat Suitability Index assessment and the collection of water samples for the eDNA sampling and as such the survey had no significant constraints.

4 SURVEY FINDINGS

4.1 Bat Survey Findings

4.1.1 The findings of the ground-level inspection of the trees to be removed or affected by proposals are detailed in the table below and the trees are mapped on a plan in **Appendix 2**:

Tree reference number	Species	Survey notes	Bat roost potential (Category)
T1	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with two woodpecker holes and light ivy cover (Photographs 1 & 2).	Moderate
T2	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with several small knot holes and light ivy cover (Photographs 3 & 4).	Low
T3	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with a few small knot holes, a rot hole and a nuthatch nest box (Photographs 5 & 6).	Low
T4	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with a couple of small knot holes and light ivy cover (Photographs 7 & 8).	Low
T5	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with thick ivy cover (Photographs 9 & 10).	Low
T6	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with thick ivy cover and standing deadwood with woodpeckers holes at treetop (Photographs 11 & 12).	Moderate
T7	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with standing deadwood and woodpecker holes at treetop (Photographs	Low

		13 & 14).	
T8	Alder (<i>Alnus glutinosa</i>)	Tall tree with thick ivy cover (Photograph 15).	Low
T9	Alder (<i>Alnus glutinosa</i>)	Tall tree with thick ivy cover and a split in its trunk (Photographs 16 & 17).	Moderate
T10	Alder (<i>Alnus glutinosa</i>)	Group of four tall alder trees with thick ivy cover. One tree with damage/deadwood at treetop (Photographs 18 & 19).	Low
T11	Alder (<i>Alnus glutinosa</i>)	Large multi-stemmed alder tree with thick ivy cover and a wound in the trunk (Photographs 20 & 21).	Moderate
T12	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with thick (cut) ivy cover (Photograph 22).	Low
T13	Alder (<i>Alnus glutinosa</i>)	Tree with thick (cut) ivy cover (Photograph 22).	Low
T14	Alder (<i>Alnus glutinosa</i>)	Tree with thick (cut) ivy cover (Photograph 23).	Low
T15	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with thick ivy cover, two small knot holes and a broken branch (Photographs 24 & 25).	Low
T16	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed tree with a vertical split and standing deadwood (Photograph 26 & 27).	Low
T17	Willow (<i>Salix</i> sp.)	Tree with light ivy cover and a deep rot hole low down in the	Low

		trunk. A torn/shed limb possessed a deep crack (Photographs 28, 29 & 30).	
T18	Pedunculate oak (<i>Quercus robur</i>)	Veteran tree with light ivy cover and a large knot hole in a branch (Photographs 31 & 32).	Moderate
T19	Alder (<i>Alnus glutinosa</i>)	Group of three alder trees with light ivy cover (Photograph 33).	Negligible
T20	Alder (<i>Alnus glutinosa</i>)	Group of three small alder trees with light ivy cover (Photograph 34).	Negligible
T21	Willow (<i>Salix</i> sp.)	Large fallen tree with cracked bark and ivy cover (Photograph 35).	Low
T22	Alder (<i>Alnus glutinosa</i>)	Mature tree with dense ivy cover (Photograph 36).	Low
T23	Willow (<i>Salix</i> sp.)	Large fallen tree with a deep crack into the trunk (Photograph 37).	Low
T24	Alder (<i>Alnus glutinosa</i>)	Over-stood stool with thick ivy cover (Photograph 38).	Low
T25	Willow (<i>Salix</i> sp.)	Mature willow with dense ivy cover and a torn branch (Photograph 39).	Low
T26	Alder (<i>Alnus glutinosa</i>)	Multi-stemmed (c.10) tree with thick ivy cover. Small trunks overhanging the paleo channel lack bat roost features (Photographs 40 & 41).	Low
T27	Alder (<i>Alnus</i>	Mature tree with thick ivy cover,	Low

	<i>glutinosa</i>)	a tear-out from a shed limb and a small compression fork (Photographs 42 & 43).	
T28	Alder (<i>Alnus glutinosa</i>)	Small tree with light ivy cover (Photograph 44).	Negligible
T29	Poplar (<i>Populus</i> sp.)	Tall tree with thick ivy cover (Photograph 45).	Low
T30	Alder (<i>Alnus glutinosa</i>)	Thin and tall tree with thick ivy cover (Photograph 46).	Low
T31	Unknown	Standing deadwood with thick ivy cover and butt-rot holes (Photograph 47).	Low
T32	Pedunculate oak (<i>Quercus robur</i>)	Mature tree with thick ivy cover and a snapped branch (Photographs 48 & 49).	Moderate
T33	Pedunculate oak (<i>Quercus robur</i>)	Mature tree with light ivy cover (Photograph 50).	Low
T34	Willow (<i>Salix</i> sp.)	Mature tree with crown snapped off (Photographs 51 & 52).	Low

4.2 Great Crested Newt Habitat Suitability Index (HSI) Assessment

4.2.1 An assessment of the suitability of the pond on site for great crested newt (Habitat Suitability Index (HSI)) shows that the pond is of 'average' suitability (refer to table in **Appendix 3**). The pond falls within the optimal geographic location for great crested newt and it forms part of the paleo channel, which is consistently fed by ground water. The pond is managed by Friends of the Emm Brook (FOTEB) and consequently has good water quality and a range of marginal and submerged vegetation. The terrestrial habitat following the paleo channel has good structure for individual newts to traverse and take shelter in, and the pond shows no evidence of wildfowl or fish. The pond is 50m² which is at the lower end of the size range of which great crested newts typically prefer; however, it is connected to the paleo channel which has additional sections of

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standing water considered suitable for use by newts. The pond was shaded by alder trees and dense vegetation on its northern bank and to the south the pond is bordered by open amenity grassland.

4.3 Great Crested Newt eDNA Sampling Findings

- 4.3.1** An analysis of the environmental DNA within the pond and paleo channel water samples confirmed that great crested newts have not been present within the pond (refer to technical report in **Appendix 4**).

5 DISCUSSION AND RECOMMENDATIONS

5.1 Bats

- 5.1.1** Most of the trees inspected were mature alder trees (*Alnus glutinosa*) with multiple stems, ivy (*Hedera helix*) cover and at least a single bat roost feature (i.e. knot hole, woodpecker hole, rot hole). These trees were considered to be of low bat roost potential and included: **T2-5, T7, T8, T10, T12-16, T22, T24, T26, T27** and **T30**.
- 5.1.2** Other trees considered to be of low bat roost potential included: three mature willow trees (*Salix* sp.; **T17, T25 & T34**), two large fallen willow trees (*Salix* sp.; **T21 & T23**), a mature poplar tree (*Populus* sp.; **T29**), standing deadwood (**T31**) and a mature pedunculate oak (*Quercus robur*; **T33**).
- 5.1.3** Several trees had bat roost features that could undergo close inspection by endoscope, which would be sufficient in determining the presence or unlikely absence of roosting bats within the tree. A willow tree (**T17**) had a deep rot hole in its trunk, and two fallen willow trees (**T21 & T23**) had deep cracks, which were accessible from the ground-level for close inspection. It is likely that other trees could potentially be ruled out by endoscopic inspection of their bat roost features and therefore wherever possible this method should take place.
- 5.1.4** Any tree work planned on the aforementioned trees (unless ruled out by endoscopic inspection) should be preceded by further survey in order to determine if bats are present or likely to be absent and should comprise at least one emergence and/or re-entry survey; two further surveys will be required if bats are shown to be present in order to characterise the roost. The survey should be completed within the period between May and September inclusive with additional surveys (if necessary) carried out in the peak season for recording maternity roosts i.e. mid-May to August, and at least two weeks should separate the surveys (Collins 2016).
- 5.1.5** A few trees were considered to be of moderate bat roost potential on account of the suitability of their potential bat roost features and the likelihood of harbouring bat roost features not visible from the ground-level inspection. Four of these trees were mature, multi-stemmed alders (**T1, T6, T9 & T11**) with thick ivy and bat roost features such as woodpecker holes and a split in the trunk. There were two large, mature oak trees (**T18 & T32**) with at least one bat roost feature visible from the ground-level but due to their size it was considered likely that they could have more features in their crowns.

5.1.6 Planned tree works should aim to avoid having an impact on the trees classed with moderate bat roost potential and should only take place as a last resort. If work is to take place, further detailed survey should be carried out beforehand. This should comprise a detailed, high-level inspection for evidence of roosting bats, e.g. from a mobile work platform or by a climbing survey, and/or two emergence and/or re-entry surveys; a further survey will be required if bats are shown to be present in order to characterise the roost. If emergence/re-entry surveys are carried out these should be undertaken in the period between May and September.

5.1.7 A European Protected Species Licence (EPSL) would be required from Natural England in order to permit the felling of the tree(s) if surveys reveal that roosting bats are present.

5.2 Great Crested Newts

5.2.1 The survey findings confirm that great crested newts are highly unlikely to be present in the pond and the paleo channel on site. Therefore, the proposed work to the pond and paleo channel is highly unlikely to have any impact on great crested newts or their habitats and as such it is considered that a European Protected Species Licence would not be required to allow the planned work to go ahead lawfully.

6 REFERENCES

BTHK 2018. *Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-Care and Ecology Professionals*. Exeter: Pelagic Publishing.

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. 3rd Edition. Bat Conservation Trust, London.

English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

Gent, T. & Gibson, S. (2003) *Herpetofauna Workers' Manual*. Joint Nature Conservation Committee, Peterborough.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), *Great Crested Newt Conservation Handbook*, Froglife, Halesworth.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10 (4), 143-155.

APPENDIX 1 – TREE INSPECTION PHOTOGRAPHS



1. T1 – multi-stemmed alder tree.



2. Woodpecker hole in T1.



3. T2 – multi-stemmed alder tree.



4. Small knot hole in T2.



5. T3 – multi-stemmed alder tree.



6. A rot hole in dead branch of T3.



7. T4 – multi-stemmed alder tree.



8. Two small knot holes in T4.



9. T5 – multi-stemmed alder tree.



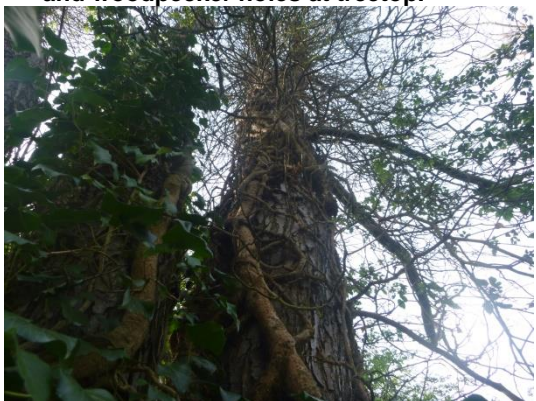
10. Potential crevice behind thick ivy stems on T5.



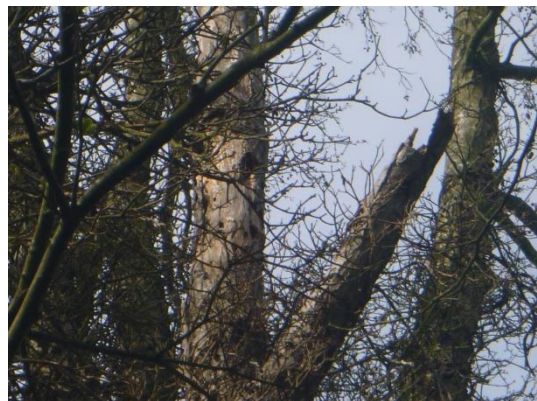
11. T6. – multi-stemmed alder with deadwood and woodpecker holes at treetop.



12. Thick ivy stems on T6.



13. T7 – multi-stemmed alder tree.



14. Deadwood at treetop of T7 with visible woodpecker hole.



15. T8 – tall alder tree with thick ivy cover.



16. T9 – tall alder tree with thick ivy cover.



17. Split in the trunk of T9.



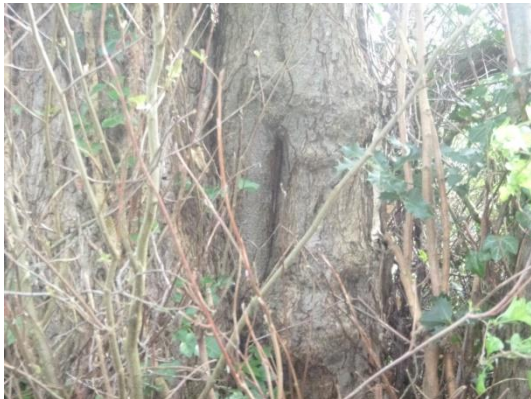
18. T10 – group of four alder trees.



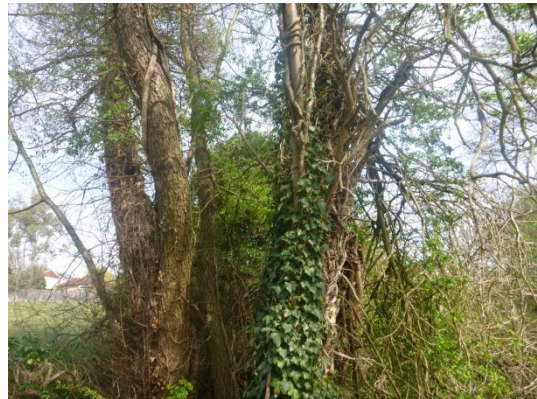
19. Damage/deadwood at treetop of one of the T10 trees.



20. T11 – large multi-stemmed alder tree.



21. Wound in trunk of T11.



22. T12 & T13 alder trees with thick ivy cover.



23. T14 – alder tree with cut ivy with thick stems.



24. T15 – multi-stemmed alder tree next to pond.



25. A couple of small knot holes in T15.



26. T16 – multi-stemmed alder tree next to pond.



27. Vertical wound in trunk of T16.



28. T17 – willow tree next to paleo channel to west of pond.



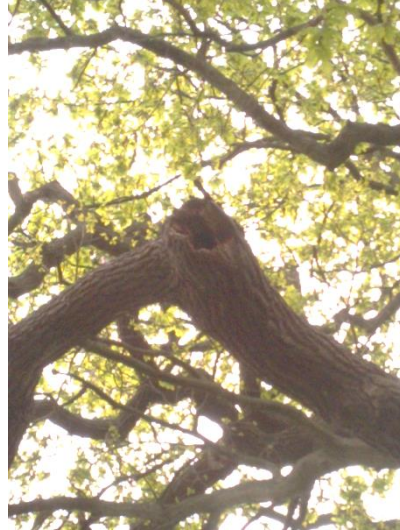
29. Deep rot hole low down on trunk of T17.



30. Deep crack in shed limb of T17.



31. T18 – veteran oak tree in parkland.



32. Large knot on branch of T18.



33. T19 – group of three alder trees.



34. T20 – group of three small alder trees.



35. T21 – large fallen willow tree with deep cracks.



36. T22 – mature alder tree with thick ivy cover.



37. T23 – large fallen willow tree with deep cracks.



38. T24 – over-stood alder stool with thick ivy cover.



39. T25 – large willow with thick ivy and torn branch.



40. T26 – large multi-stemmed alder tree.



41. Thick ivy on trunk of T26 leaning away from paleo channel.



42. T27 – alder tree with thick ivy cover.



43. A tear-out and small compression fork in T27.



44. T28- a small alder tree with light ivy cover.



45. T29- a tall poplar tree with thick ivy cover.



46. T30 – a thin and tall alder tree with thick ivy cover.



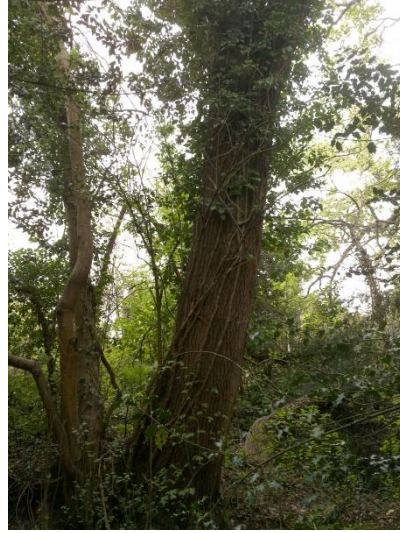
47. T31 – standing deadwood with ivy cover and butt-rot holes.



48. T32 – a mature oak tree with thick ivy cover.



49. Snapped branch on T32.



50. T33 – mature oak tree with light ivy cover.



51. T34 – Mature willow tree with missing crown.



52. Fallen crown of T34.

APPENDIX 2 – TREE INSPECTION SURVEY PLAN



Key:

Bat Roost Potential:

- Negligible
- Low
- Moderate

Emm Brook, Woosehill
Map of Trees with Bat Roost Potential

May 2019



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APPENDIX 3 – GREAT CRESTED NEWT HABITAT SUITABILITY INDEX (HSI) SCORES

Pond		
Suitability Index	Score	Consideration of suitability index
SI₁ (Location)	1.0	The pond falls within Zone A, the optimal zone for great crested newts.
SI₂ (Pond area)	0.1	The pond is estimated to have an area of approximately 50m ² .
SI₃ (Pond drying)	1.0	The pond never dries as it forms part of the paleo channel, which is consistently fed by groundwater.
SI₄ (Water quality)	1.0	The pond water quality was good with marginal/ submerged plants and abundant invertebrates. The pond maintained by FOTEB.
SI₅ (Shade)	1.0	The pond was shaded on its northern bank by alder trees and dense vegetation (approx. 50%).
SI₆ (Fowl)	1.0	The pond is unlikely to suffer from impact from waterfowl due to its small size and there was no evidence during the survey.
SI₇ (Fish)	1.0	No evidence of fish in the pond.
SI₈ (Ponds)	0.4	OS mapping reveals at least 3 ponds within 1km of the pond but these were discounted due to major barriers i.e. roads and railway lines. The pond itself forms part of the paleo channel and the surrounding residential gardens might include ponds not mapped by OS.
SI₉ (Terrestrial habitat)	0.67	South of the pond lies amenity grassland lacking structure; however, the banks of the paleo channel offer marginal vegetation and scrub which connects to larger areas of woodland on site.
SI₁₀ (Macrophytes)	0.5	The southern side of the pond had marginal and submerged vegetation (approx. 20 %).
HSI score & pond suitability	0.65	Average suitability

APPENDIX 4 – GREAT CRESTED NEWT eDNA TECHNICAL REPORT



Folio No: E4696
Report No: 1
Order No: 51583
Client: JOHN WENMAN ECOLOGY
Contact: Conor Watson
Contact Details: conor@wenman-ecology.co.uk
Date: 07/05/2019

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS

Date sample received at Laboratory: 25/04/2019
Date Reported: 07/05/2019
Matters Affecting Results: None

RESULTS

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
0526	5158 Emm Brook, Woose Hill	SU79824 69269	Pass	Pass	Pass	Negative	0

SUMMARY

When Great Crested Newts (GCN); *Triturus cristatus* inhabit a pond, they deposit traces of their DNA in the water as evidence of their presence. By sampling the water, we can analyse these small environmental DNA (eDNA) traces to confirm GCN habitation, or establish GCN absence.

The water samples detailed below were submitted for eDNA analysis to the protocol stated in DEFRA WC1067 (Latest Amendments). Details on the sample submission form were used as the unique sample identity.

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**Emm Brook
Riverside Park
Woosehill
Wokingham
Berkshire**

Addendum: Phase 2 Ecological Surveys

Ref: R2708/a

March 2021

 **JOHN WENMAN**
ecological consultancy

1	INTRODUCTION.....	3
1.1	Overview.....	3
1.2	Site Location and Context.....	3
1.3	Report format.....	4
2	LEGISLATIVE BACKGROUND.....	5
2.1	Amphibians.....	5
2.2	Bats.....	5
2.3	Birds.....	7
3	SURVEY METHODS.....	8
3.1	Preliminary Bat Roost Assessment.....	8
3.2	Survey constraints.....	9
4	SURVEY FINDINGS.....	10
4.1	Results.....	10
5	DISCUSSION AND RECOMMENDATIONS.....	12
5.1	Assessment of Bat Roost Potential.....	12
5.2	Impact of Proposals and Recommendations.....	12
5.3	Nesting birds.....	13
6	ECOLOGICAL ADVICE FOR POND WORKS.....	14
6.1	Great Crested Newts.....	14
6.2	Ecological Guidance.....	14
7	REFERENCES.....	15
	APPENDIX 1 – SITE PHOTOGRAPHS.....	16
	APPENDIX 2 – TREE LOCATION PLAN.....	19

1 INTRODUCTION

1.1 Overview

1.1.1 John Wenman Ecological Consultancy LLP was commissioned by the South East Rivers Trust (SERT) to undertake additional Phase 2 ecological survey work at Riverside Park in Woosehill, Wokingham. The work has been commissioned in relation to SERT's Woosehill Fish Passage Improvements Project (Planning Application Number: 203617) and Wokingham Borough Council's Greenways Project.

1.1.2 This report is an addendum to the Phase 2 Ecological Surveys completed by John Wenman Ecological Consultancy LLP in May 2019 (Ref: 2220/b), which assessed the bat roost potential of trees and reported the findings of great crested newt (*Triturus cristatus*) eDNA sampling in the pond and paleochannel.

1.1.3 This report includes a preliminary ground-level bat roost assessment of additional trees now considered likely to be impacted by proposals and ecological advice for silt removal in the pond.

1.2 Site Location and Context

1.2.1 The site is located at Riverside Park ('Woosehill Meadows') to the east of Morrisons supermarket in Woosehill, Wokingham (OS grid reference: SU 79824 69269).

1.2.2 The Emm Brook river runs through Riverside Park in the centre of the Wokingham suburb of Woosehill. The wider extent of the Park includes open fields and woodland to the south of the site. The Woosehill Spine Road borders the northwest of the site and the Reading Road (A329) is to the north. A railway line bordered by established woodland lies approximately 210 metres to the northeast and connects to Holt Copse and Joel Park Local Nature Reserve (LNR) approximately 400 metres to the east of the site. Approximately 235 metres to the west, lies a small lake with wooded banks called Windmill Pond.

1.2.3 Overall, the surrounding area offers pockets of habitat suitable for use by a range of fauna adapted to suburban environments.

1.3 Report format

- 1.3.1** There follows: a summary of legislation (**Section 2**); a description of the survey methods (**Section 3**); survey findings (**Section 4**); a discussion of the findings and recommendations (**Section 5**); ecological advice for pond works (**Section 6**) and references (**Section 7**). The appendices present: site photographs (**Appendix 1**); and a plan of the trees on site (**Appendix 2**).

2 LEGISLATIVE BACKGROUND

2.1 Amphibians

2.1.1 The seven native species of amphibian receive protection under the Wildlife & Countryside Act 1981 (as amended). The four widespread and common amphibians (common frog, toad, smooth and palmate newts) receive limited protection – making their sale illegal.

2.1.2 Great crested newts receive full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation (Natural Habitats &c.) Regulations 2017 ('Habitat Regulations') (as amended). These make it illegal to:

- Intentionally or recklessly kill, injure or take a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt;
- Intentionally or recklessly disturb great crested newts; in particular, any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

2.1.3 The great crested newt and common toad are listed as being of principal importance for the conservation of biodiversity in England, under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, (commonly referred to as a UKBAP Priority Species).

2.2 Bats

2.2.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;

- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any bat.

2.2.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;
- **Regulation 55(9)(b)** - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment".

2.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests have been satisfied by an application where European Protected Species licensing is necessary before granting planning permission.

2.2.4 European Protected Species mitigation licence applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days of a full mitigation licence application.

2.2.5 Licensable projects affecting small numbers of seven commonly occurring bat species may fall under the remit of the Bat Mitigation Class Licence (WML-CL21). The Class Licence permits 'Registered Consultants' to carry out licensable operations on site on behalf of clients following the

John Wenman Ecological Consultancy
04/03/21

registration of sites with Natural England at least 15 working days before the work is due to start.

2.2.6 Survey data supporting EPS licence applications or the registration of the site under the Bat Mitigation Class Licence (WML-CL21) must be up to date i.e., have been conducted within the current or most recent optimal survey season i.e., May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

2.3 Birds

2.3.1 All wild birds are protected under the Wildlife & Countryside Act 1981 (as amended). The Act makes it an offence to kill, injure or take a wild bird or to damage or destroy the nest of a wild bird whilst in use or being built.

2.3.2 Less common bird species of conservation concern, such as the barn owl and kingfisher, are listed on Schedule 1 of the Act, which also makes it an offence to disturb the birds whilst nesting.

3 SURVEY METHODS

3.1 Preliminary Bat Roost Assessment

3.1.1 A ground-level inspection of all additional trees now considered likely to be impacted by the proposals was undertaken on the 26th February 2021 by two ecologists registered under Natural England Bat Survey Class Licences CL18 and CL17, respectively.

3.1.2 The trees were surveyed from ground-level with the aid of binoculars and a high power (1 million candle power) torch; identifying features that could offer potential roosting sites following standard survey guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell-Jones & McLeish 2004).

3.1.3 Trees may provide roosting opportunities for bats if they have features such as:

- Cavities caused by woodpeckers, or decay extending upwards from the entrance;
- Rot holes;
- Knot holes arising from shed limbs;
- Hazard beams;
- Vertical or horizontal splits within the trunk or limbs;
- Dense ivy cover where stems are partially detached and exceed 50 mm diameter; and
- Areas of loose bark.

3.1.4 Detecting bats within trees during daylight surveys can be extremely difficult, but occasionally the presence of bats can be indicated by the signs such as:

- Staining around cavities;
- Areas of worn or smooth bark; and
- Bat droppings.

3.1.5 The trees were assessed for their potential to support bats. The trees were graded according to the following criteria based on criteria created for assessing trees subject to arboricultural work (Collins 2016):

Tree category/designation	Details and features
Known or confirmed roost	Bats have been found roosting or seen to emerge/re-enter the tree
High	Mature tree with one or several features providing highly suitable roosting conditions for bats which are likely to be suitable for use by multiple bats at different periods of the year; has potential to act as a hibernation site.
Moderate	Mature tree with one or several features providing limited roosting opportunities. Likely to be suitable only as transient roosts for individual or a small number of bats. Use likely to be limited to short periods during the summer; unlikely to be suitable as a hibernation site
Low	Mature or semi-mature tree with very few opportunities for bats, but occasional minor features such as dead branches that may provide for short term use by individual bats or a large tree with potential for high level features to be present but not visible from ground level
Negligible	Tree with no visible opportunities for bats

3.2 Survey constraints

3.2.1 Full access was available to the site and as such the survey had no significant access constraints. The tree survey was an assessment of the trees from ground-level only and therefore it remains possible that features with potential for use by bats at a high level may not have been visible.

4 SURVEY FINDINGS

4.1 Results

4.1.1 The findings of the ground-level inspection of additional trees now considered likely to be impacted by proposals are detailed in the table below, photographs of trees are presented in **Appendix 1** and the trees are mapped on a plan in **Appendix 2**.

Tree reference	Species	Survey notes	Bat potential	Work required	Recommendation
T35 (02 'Arboricultural Assessment & Method Statement')	Crack willow (<i>Salix fragilis</i>)	Mature, multi-stemmed tree with ivy cover and superficial deadwood (Photographs 1 & 2).	Low	Coppice (possible removal)	Soft fell approach. If bats are encountered, work must cease and advice sought from ecologist
T36 (03 'Arboricultural Assessment & Method Statement')	Crack willow (<i>Salix fragilis</i>)	Mature, multi-stemmed tree with split limb and minor deadwood in crown (Photographs 3 & 4).	Low	Coppice (possible removal)	Soft fell approach. If bats are encountered, work must cease and advice sought from ecologist
T37 (04 'Arboricultural Assessment & Method Statement')	Crack willow (<i>Salix fragilis</i>)	Mature, multi-stemmed tree with ivy cover (Photograph 5).	Low	Coppice (possible removal)	Soft fell approach. If bats are encountered, work must cease and advice sought from ecologist
T38 (05 'Arboricultural Assessment & Method Statement')	Crack willow (<i>Salix fragilis</i>)	Mature, multi-stemmed tree with superficial deadwood (Photograph 6).	Negligible	Coppice (possible removal)	None

312

T39 (09 'Arboricultural Assessment & Method Statement')	Alder (<i>Alnus glutinosa</i>)	Mature, multi-stemmed tree with ivy cover (Photographs 7 & 8).	Low	Possible removal	Soft fell approach. If bats are encountered, work must cease and advice sought from ecologist
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5 DISCUSSION AND RECOMMENDATIONS

5.1 Assessment of Bat Roost Potential

Low Bat Roost Potential

- 5.1.1** Three mature multi-stemmed crack willow (*Salix fragilis*) (**T35, T36 & T38**) and a mature multi-stemmed alder (*Alnus glutinosa*) (**T39**) had low-suitability potential roost features (i.e., ivy cover and a split limb).

Negligible Bat Roost Potential

- 5.1.2** One of the mature multi-stemmed crack willows (*S. fragilis*) (**T37**) had no visible opportunities for roosting bats and was deemed unlikely to possess concealed features.

5.2 Impact of Proposals and Recommendations

No Action Required

- 5.2.1** Tree work carried out on trees categorised with negligible bat roost potential is considered highly unlikely to lead to the disturbance of bats or lead to the loss of a bat roost.

Soft Fell Approach

- 5.2.2** A soft fell approach to any work on trees that have been assessed as having low bat roost potential should be adopted i.e., **T35, T36, T38 & T39**. The arborist should be alerted to the possibility of bats being present in the features, such as behind ivy and in split limbs, and follow a soft fell approach to felling (or limb removal) whereby sections of tree are carefully cut and lowered to the ground, and retained on site overnight to allow any roosting bats to disperse. If in the unlikely event that a bat is encountered all works must cease and the advice of an ecologist must be sought.

5.3 Nesting birds

- 5.3.1** Tree works should be completed outside of the peak bird nesting season (March to August) or alternatively, following an inspection by an ecologist confirming that there is no current nesting activity. If nesting birds are discovered prior to or during the course of any work, it should stop immediately and should continue only once bird nesting has finished i.e., young have fledged and left the nest.

6 ECOLOGICAL ADVICE FOR POND WORKS

6.1 Great Crested Newts

6.1.1 Sampling of pond water for great crested newt (*Triturus cristatus*) eDNA in April 2019 by John Wenman Ecological Consultancy LLP (Ref: Ref: 2220/b) confirmed that presence was highly unlikely. Therefore, the proposed work to the pond and paleo channel is highly unlikely to have any impact on great crested newts or their habitats and as such it is considered that a European Protected Species Licence would not be required to allow the planned work to go ahead lawfully.

6.2 Ecological Guidance

6.2.1 A large frog (*Rana temporaria*) spawning event was witnessed in the pond during the site visit on the 26th February 2021 (**Photograph 9**). If desilting of the pond is to be carried out, the work would be best undertaken at the end of the summer or early autumn when water levels are lower and to avoid the amphibian breeding season. Timing the work for this time of year will also avoid disturbing the pond during the winter when amphibians are likely to be hibernating and unable to escape freely.

7 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. 3rd Edition. Bat Conservation Trust, London.

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3RD Edition)*. JNCC, Peterborough.

Bat Tree Habitat Key (2018). *Bat roosts in trees – A guide to the identification and assessment for tree-care and ecology professionals*. Pelagic Publishing, Exeter.

APPENDIX 1 – SITE PHOTOGRAPHS



1. Mature multi-stemmed crack willow (T35).



2. Dead limb (T35).



3. Mature multi-stemmed crack willow (T36).



4. Split dead limb (T36).



5. **Mature multi-stemmed crack willow (T37).**



6. **Mature single-stemmed crack willow (T38).**



7. **Mature alder (T39).**



8. **Thick ivy stems on alder (T39).**



9. Frog spawning event in pond.

APPENDIX 2 – TREE LOCATION PLAN

321



Emm Brook at Riverside Park
Woosehill, Wokingham

Map of Trees with Bat Roost Potential
(Addendum)

Key:

Bat Roost Potential

- Negligible
- Low
- Moderate

Surveyors: John Wenman MCIEEM
& Conor Watson Grad CIEEM

Date: March 2021

JOHN WENMAN
ecological consultancy

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Bridge Footing Design Emm Brook Restoration

Footbridge Approval in Principle

South East Rivers Trust

Document no: A120099-TGEE-M0-XX-RP-C-0001


Revision: P01

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Contents

Summary	Error! Bookmark not defined.
1. Highway Details	2
1.1. Type of Highway	2
1.2. Permitted traffic speed	2
1.3. Existing restrictions	2
2. Site Details	2
2.1. Obstacles crossed	3
3. Proposed Structure	3
3.1. Description of structure and design working life	3
3.2. Structural type	4
3.2.1. Flood control structure	4
3.3. Foundation type	4
3.4. Span arrangements	5
3.5. Articulation arrangements	6
3.6. Classes and levels	6
3.6.1. Consequence Class	6
3.6.2. Reliability Class	6
3.6.3. Inspection Level	7
3.7. Road restraint systems requirements	7
3.8. Proposals for water management	7
3.9. Proposed arrangements for future maintenance and inspection	7
3.9.1. Traffic management	7
3.9.2. Arrangements for future maintenance and inspection of structure.	7
3.9.3. Access arrangements to structure	7
3.10. Environment and sustainability	7
3.10.1. Special environmental considerations	7
3.11. Durability, material and finishes	8
3.11.1. Concrete	8
Specification	8
Exposure class and cover	8
Reinforcement	8
Proposed finishes	9

3.11.2. Steel	9
Steel grade	9
3.12. Risks and hazards considered for design, execution, maintenance and demolition. Consultation with and/or agreement from Overseeing Organisation	10
3.13. Estimated cost of proposed structure together with other structural forms considered (including where appropriate proprietary manufactured structure), and the reasons for their rejections (including comparative whole life costs with dates of estimates)	10
3.14. Proposed arrangements for construction	10
3.14.1. Construction of structure	10
3.14.2. Traffic management	10
3.14.3. Service diversions	10
3.14.4. Interface with existing structures	11
3.15. Resilience and security	11
4. Design Criteria	11
4.1. Actions	11
4.1.1. Permanent actions	11
4.1.2. Snow, wind and thermal actions	11
4.1.3. Actions relating to normal traffic under AW regulations and C&U regulations	12
4.1.4. Actions relating to General Order traffic under STGO regulations	12
4.1.5. Footway or footbridge variable actions	12
Live Loads	12
Parapet Loads	12
Vehicle Loads	12
4.1.6. Actions relating to Special Order traffic, provision for exceptional abnormal indivisible loads including location of vehicle track on deck cross section	12
4.1.7. Accidental actions	12
4.1.8. Action during construction	12
4.1.9. Any special action not considered above	13
Water Load	13
4.2. Heavy or high load route requirements and arrangements being made to preserve the route, including any provision for future heavier loads or future widening	13
4.3. Proposed minimum headroom to be provided	13
4.4. Authorities consulted, and any special conditions required	13
4.5. Standards and documents listed in the technical approval schedule (TAS)	13
Concrete	14

Steels and other materials	14
4.5.2. Additional relevant Standards	14
4.6. Proposed Departures from standards given in 4.5	14
4.7. Proposed Departures from standards concerning methods for dealing with aspects not covered by standards in 4.5	15
5. Structural Analysis	15
5.1. Methods of analysis proposed for superstructure, substructure and foundations	15
Foundations	15
Flood control structure	15
5.2. Description and diagram of idealised structure to be used for analysis	15
5.3. Assumptions intended for calculation of structural element stiffness	15
5.4. Proposed range of soil parameters to be used in the design of earth retaining elements	16
6. Geotechnical Conditions	16
6.1. Acceptance of recommendations of the ground investigation report (reference/dates) to be used in the design and reasons for any proposed changes	16
Stratigraphy and design ground model	16
Characteristic geotechnical parameters	17
6.2. Summary of design for highway structure in the ground investigation report	17
6.3. Differential settlement to be allowed for in the design of the structure	17
6.4. If the ground investigation report is not yet available, state when the results are expected and list the sources of information used to justify the preliminary choice of foundations	17
7. Check	18
7.1. Proposed Category and Design Supervision Level	18
7.2. If Category 3, name of proposed Independent Checker	18
7.3. Erection proposals or temporary works for which Type S and P Proposals will be required, listing structural parts of the permanent structure affected with reasons	18
8. Drawings and Documents	18
8.1. List of drawings (including numbers) and documents accompanying the submission	18
9. The above is submitted for acceptance	19
10. The above is rejected / agreed subject to the amendments and conditions shown below	19

Appendix

Appendix A – CDM Review

Appendix B - Drawing

Introduction

Tony Gee and Partners (TG) has been appointed by South East Rivers Trust (SERT) to undertake the design of the foundations associated with the proposed 2No. new footbridges and flood control structure over the channel reinstatement at Emm Brook, Woosehill, Wokingham. The new channel aims to reinstate a historic channel east of the current water course to improve fish passage and restore the watercourse to its original natural state. Two new footbridges are required to maintain public access along existing rights of way for pedestrian traffic. In addition, a flow control device shall be affixed to the southern bridge foundation.

This AIP is based on DMRB CG300 Appendix A. Model form of Approval in Principle for the design of bridges and other highway structures where UK National Standards (Eurocodes) are used.

1. Highway Details

1.1. Type of Highway

Not applicable.

1.2. Permitted traffic speed

Not applicable.

1.3. Existing restrictions

The new bridges and footings are to be installed across a newly dug bypass channel. Access for the bridge footing construction will be via land from the north.

Existing restrictions:

- A 15m root protection zone around the existing oak located south of southern bridge.
- No works within 500mm exclusion zone around the foul sewer located to the north of the southern bridge.

2. Site Details

The location of the two bridges is indicated in Figure 1.

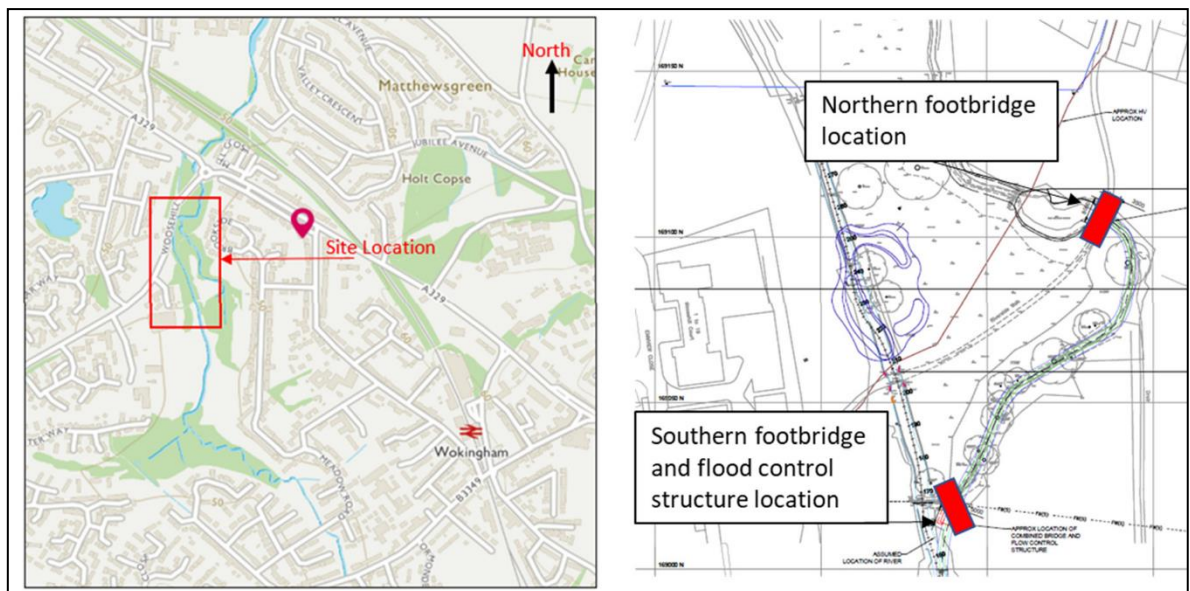


Figure 1. Approximate location of bridges

The northern bridge is proposed to replace an existing piped culvert crossing of the former channel located at NGR: SU 7993769107.

The southern bridge and flood control structure are proposed to cross the new section of bypass channel located at NGR: SU 79891 68998.

2.1. Obstacles crossed

The northern and southern bridges and flood control structure will cross the newly dug bypass channel.

The regrade of the footpath to the north of the south bridge shall require interfacing with the existing foul sewer and levels shall be such that there is no reduction in cover to the existing pipe.

3. Proposed Structure

3.1. Description of structure and design working life

The northern bridge consists of a steel/timber composite footbridge with a 6.8m span and clear width of 3.5m. The foundations shall be a reinforced concrete L-wall with associated wing walls.

The southern bridge consists of a steel/timber composite structure with an approx. 9.7m skew span and clear width of 3.5m. The bridge structure shall have skew ends to minimise the span across the channel with the foundations, orientated to suit, formed of a reinforced concrete L-wall with associated wing walls. A steel beam shall be affixed to the western face of the foundations to serve as a flow control device.

The bridges shall be integrated with the existing footpaths through local regrading of the adjacent paths with access ramps constructed from imported or site won fill as required.

Table 1. Structure design working life

Element	Design Working Life	Period to First Routine Maintenance	Routine Maintenance by Employer	Unacceptable Repair / Replacement
Hardwood timber (Bridge components)	50 years	1 year (less depending on season)	For first few seasons regular wetting of structure during hot weather should be undertaken to limit cracks and warping during the initial drying out process.	Replacement of defective items (i.e. deck plank, parapet posts, parapet rails)
Bridge fixtures, fittings & finishes	12-15 years	12 years (min)	Visual inspection. Re-coat of localised affected areas as required.	Replacement of defective/corroded fittings
Reinforced concrete footings	50 years	50 years	None	Cutting out / replacement of defective / spalled concrete and corroded reinforcement

Steelwork of flood control structure	50 years	15 years	Re-coating of protective treatment systems and/or renovation of CP system every 15 years.	Cutting out / replacement of defective / corroded steel or their fixings; welding of steel plates onto existing steel structure / elements.
Bridge bearings	25 years	5 years	Clear/clean debris from bearing plinth	Bearing failure requiring premature replacement

Other non-structural parts will require replacement on a more frequent basis.

3.2. Structural type

3.2.1. North Footbridge

The north footbridge shall consist of steel primary beams with hardwood timber decking members spanning between longitudinal steel beams that transmit the load towards the bearings. Bearings to be elastomeric provided at each beam locations along the bearing shelf.

Handrailing and stanchion to be formed of timber, stanchion affixed directly to the external longitudinal beams.

3.2.2. South Bridge

The south bridge shall cross the new bypass channel at a skew angle with an effective span of 13m. Construction to be formed of steel longitudinal beams. Timber decking shall span between the longitudinal steel beams.

Handrailing and stanchion to be formed of timber, stanchion affixed directly to the external longitudinal beams. Timber cladding shall be provided to the sides to provide an “all timber” appearance.

3.2.3. Flow control structure

The flow control structure will be a steel member immediately upstream of the southern bridge structure supported on the western face of the southern bridge footings.

The structure will consist of a steel beam laid horizontally. Beam to be confirmed at detailed design but likely to be either a rectangular hollow section or a universal beam.

3.3. Foundation type

The bridge foundations consist of a reinforce concrete L-wall with integrated wingwalls. A bearing shelf shall be incorporated into the L-wall including a drainage channel.

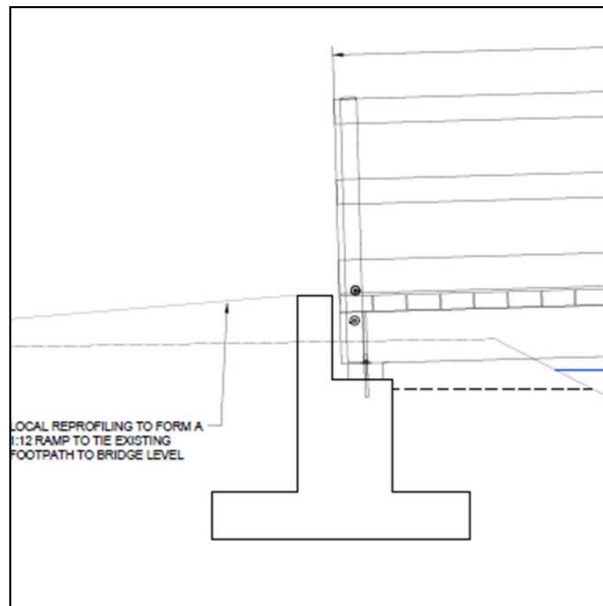


Figure 2. Section of proposed bridge footing

3.4. Span arrangements

The northern bridge shall have a 6.8m clear span (7m total length) and the southern bridge and flood control structure shall have an approximate clear span of 9.7m (skew). Indicative plan layouts are shown below.

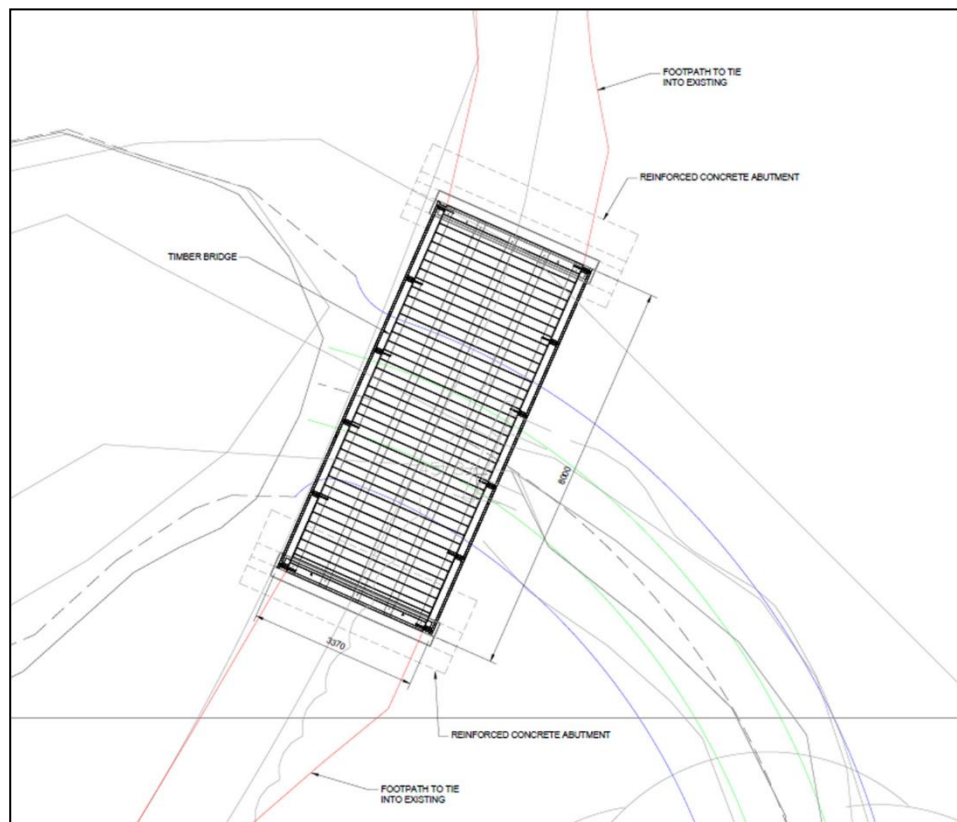


Figure 3. Plan view of the northern bridge (extract from drawing A119099-TGEE-ZZ-XX-DR-C-0011)

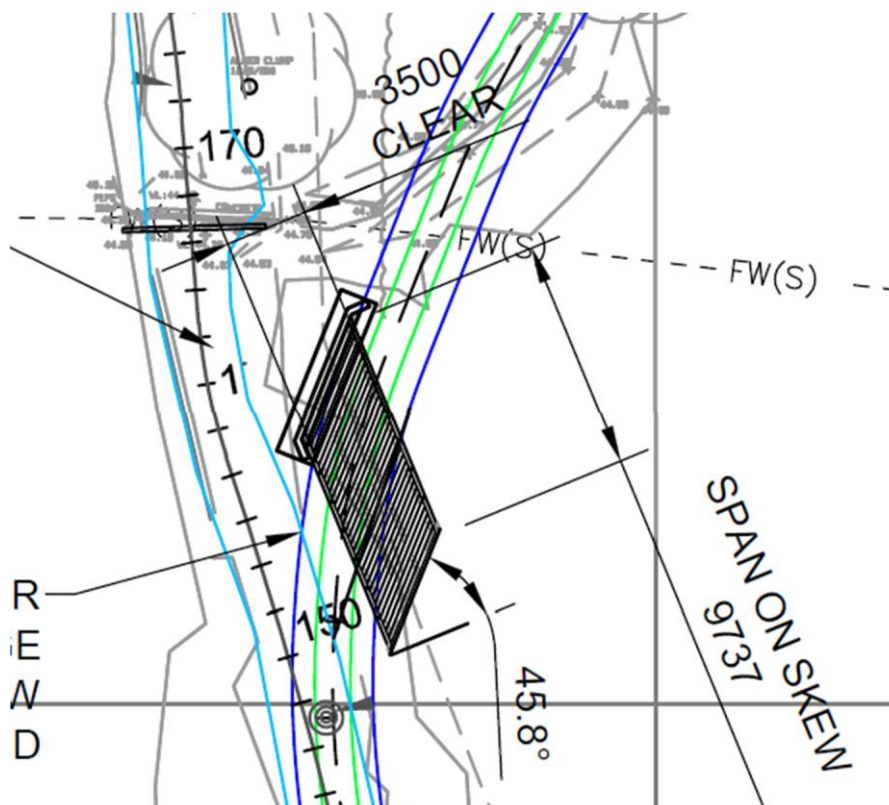


Figure 4. Plan view of southern bridge (extract from drawing A120099-TGEE-ZZ-XX-DR-C-0002)

The typical section of the northern and southern bridges is shown in Appendix B

3.5. Articulation arrangements

North Bridge: The steel beams are susceptible to thermal movement and elastomeric bearings shall be provided. Lateral restraint shall be provided at chosen bearing location to secure the bridge during flood events.

South Bridge: The steel beams are susceptible to thermal movement and elastomeric bearings shall be provided. Lateral restraint shall be provided at chosen bearing location to secure the bridge during flood events.

Flow control structure: The flow control structure shall have adequate tolerance in the connections at one end to cater for the movement from the expected thermal range.

3.6. Classes and levels

3.6.1. Consequence Class

Consequence Class- CC2 (medium as defined by Table B1 of BS EN 1990:2002.)

3.6.2. Reliability Class

Reliability Class- RC2 (in accordance with Table A.2 of Highways Agency Interim Advice Note (IAN) 124/11)

3.6.3. Inspection Level

Inspection Level-IL2 (in accordance with table B4 of BS EN 1990:2002 and Table A.2 of IAN 124/11)

3.7. Road restraint systems requirements

Handrail to be designed to resist pedestrian loads in accordance with BS EN 1991-1-1 + NA. No allowance for vehicle restraint systems. Refer to section 4.

3.8. Proposals for water management

The southern bridge is to act as a flow control structure with water levels within the channel as follows:

- Mean water level: +44.283m AOD
- 1:2 year flood level: 44.942m AOD, which will be restricted by the flood control structure with a soffit at 44.550m OAD and top level at 45.000m OAD
- 1:100 year flood level: +45.218m AOD

The footbridge will be positioned below the 1:100 year flood level.

3.9. Proposed arrangements for future maintenance and inspection

3.9.1. Traffic management

No traffic management is envisaged.

3.9.2. Arrangements for future maintenance and inspection of structure.

Inspections of the bridge structures and flood control structure will be undertaken during periods of low flow with access from the channel bank. In river working will be required to inspect the bearing shelf.

3.9.3. Access arrangements to structure

The structure can be accessed from the adjacent channel banks and footpath.

3.10. Environment and sustainability

A structurally efficient solution will be designed to minimise the amount of material used.

At the end of the working life of the structure, the reinforced concrete can be crushed and reused as aggregate. The steel from the flood control structure can be recycled.

Timbers shall be sustainably sourced FSC certified.

3.10.1. Special environmental considerations

The works will be taking place adjacent to the Emm Brook. Concrete works are planned as part of the footing construction. Care is to be taken to ensure no materials enter the watercourse during construction.

3.11. Durability, material and finishes

3.11.1. Concrete

Specification

Reinforced concrete works shall generally be C40/50 meeting the requirements in Table 1.

Table 1. Concrete specification

Strength	C40/50
Maximum w/c ratio	0.40
Maximum aggregate size:	20mm
Min cement/combination content:	380 kg/m ³
Permitted combination types:	CEM 1 IIA IIB-M IIB-S CEM 1-SR0, CEM 1-SR3

All concrete mixes shall be in accordance with the relevant clauses of BS 8500-1, BS 8500-2 and BS EN 206 and MCHW Series 1700. Exposure classes shall be in accordance with BS 8500-1.

Crack widths where relevant will be limited to 0.3mm in accordance with Table NA.2 of UK NA to BS EN 1992-2.

Exposure class and cover

Table 2. Element Exposure Class and Cover

Structural Element	Compressive strength class	Exposure Class			Cover
		XC	XD	XF	
Concrete footing	C40/50	XC3	XD3	XF2	45+ Δc

The minimum allowance for deviation, Δc shall be taken as 15mm for concrete cast against formwork or blinding. Casting of reinforced concrete directly against soil shall not be permitted.

Reinforcement

Reinforcement grade - 500N/mm² to BS 4449 Grade B500B or B500C in accordance with BS EN 10080, BS8666 and supplied by UK CARES accredited supplier where material is fully traceable.

Proposed finishes

Concrete finishes, shall be in accordance with MCHW 1708:

- Exposed faces generally – F3
- Hidden formed surfaces – F1
- Buried unformed surfaces – U2

Class F1. A dense finish with no grout or mortar loss with the specified cover to embedded metal and achieving the specified dimensional tolerances.

Class F3. As the requirements of F1 and the resulting finish shall be smooth and of uniform texture and appearance. The formwork lining shall leave no stain on the concrete and shall be so joined and fixed to its backing that it imparts no blemishes. It shall be of the same type and obtained from only one source throughout any one structure. The Contractor shall make good any imperfections in the finish. Internal ties and embedded metal parts shall not be used.

Class U1 finish. The concrete shall be levelled and screeded to produce a uniform surface to the profile shown on the drawings. No further work shall be applied to the surface unless it is used as a first stage for another class of finish.

Class U2 finish. After the concrete has hardened sufficiently, the Class U1 finish shall be floated by hand or machine sufficiently only to produce a uniform surface free from screed marks.

3.11.2. Steel

Steel grade

Structural steel grades for various structure components are shown in Table 3.

Table 3. Structural steel grade requirements

Structural Element	Structural Steel Grade
Structural steel elements – flood control structure	S355 J2H*

*A reduction to steelwork grade S235JR or S355JR may be utilised subject to explicit numerical validation to BS EN 1993-1-10:2005 to confirm suitability.

All steel will comply with the relevant BS EN standards and executed in accordance with BS EN 1090 and be CE marked.

Mild steel products shall be in accordance with MCHW Series 1800.

Mild steelwork to be hot dip galvanised to EN ISO 1461 (in accordance with EN ISO 14713 corrosivity category C3).

All enclosed sections shall be sealed against the ingress of moisture.

3.12. Risks and hazards considered for design, execution, maintenance and demolition. Consultation with and/or agreement from Overseeing Organisation

Refer to CDM designers risk assessment included in Appendix A. The design philosophy is in accordance with the CDM regulations and best practice guidance.

3.13. Estimated cost of proposed structure together with other structural forms considered (including where appropriate proprietary manufactured structure), and the reasons for their rejections (including comparative whole life costs with dates of estimates)

Approximate cost of the foundation and footings, inclusive of temporary works and mobilisation: £102,000.

Approximate costing of bridge structure: £57550.

3.14. Proposed arrangements for construction

3.14.1. Construction of structure

The following construction sequence is proposed:

1. Closure of footpath.
2. Set up site/mobilisation
3. Establish ecological mitigation and complete devegetation works
4. Construction of working platforms and haul roads for access as required
5. Excavation works and construction of footings
6. Installation of bridges and control structure
7. Profile ramp to tie into existing footpath
8. Finishing works
9. Landscaping as required
10. Remove site compound

3.14.2. Traffic management

Pedestrian foot traffic along the footpath will be temporarily closed during the installation of the footings and bridges.

3.14.3. Service diversions

Not applicable.

3.14.4. Interface with existing structures

Existing foul water sewer to be isolated during works and 500mm exclusion zone to be adhered to. No direct loading on existing pipe to be permitted.

Note: works on the adjacent pipe bridge may occur at the same time as the bridge foundation works. Contractor may be able to relax the exclusion zone in this instance.

3.15. Resilience and security

Construction works to be carried out within site boundary protected with fencing where possible.

4. Design Criteria

4.1. Actions

4.1.1. Permanent actions

All permanent actions are as outlined in BS EN 1991-1-1 and its UK National Annex.

- Plain concrete: 24kN/m³
- Reinforced concrete: 25kN/m³
- Steel: 78.5 kN/m³
- Timber 10.8kN/m³ (Ekki)

Permanent actions acting on the footbridge and footbridge foundations shall be determined in accordance with the relevant documents set out in the TAS list.

Permanent actions shall be derived in accordance with BS EN 1997 utilising soil properties outlined in Section 6.

Loading will be applied and combined in accordance with BS EN 1990 and BS EN 1991 as amended by the relevant national annex for both ULS and SLS.

4.1.2. Snow, wind and thermal actions

Snow loading will be ignored in accordance with BS EN 1991-1-3 Clause NA 4.1.1, as on ordinary bridges the accumulation of any material quantity of snow will effectively reduce the traffic loads such that the combined mass of snow and traffic loading will not exceed the nominal live load.

Wind loading to be calculated in accordance with BS EN 1991-1-4 (including national annex) for a return period of 50 years. The basic wind data is to be based on the wind velocity for Emm Brook, England assuming an altitude of $A = 40\text{m}$. Base wind speed, $v_b = 22.4\text{m/s}$.

Thermal actions will be determined in accordance with BS EN 1991-1-5 and its UK National Annex with the appropriate modifications to suit the bridge structural form.

Minimum shade air temperature to be -15 degrees Celsius.

Maximum shade air temperature to be 35 degrees Celsius.

Elastomeric bearings shall be designed to incorporate an additional +/- 20degrees Celsius in accordance with NA to BS EN 1991-1-5:2003 clause NA.2.6.

4.1.3. Actions relating to normal traffic under AW regulations and C&U regulations

Not applicable.

4.1.4. Actions relating to General Order traffic under STGO regulations

Not applicable.

4.1.5. Footway or footbridge variable actions

Pedestrian Loads

Two load models will be considered, these are as follows:

- In accordance with BS EN 1991-2:2003 cl 5.3.2.1, the footbridge will be designed for a vertical uniformly distributed live load of 5kN/m². This is to be applied over the entire footbridge.
- In accordance with BS EN 1991-2:2003 cl 5.3.2.2, the footbridge will be designed for a point load of 10kN acting on a 100mm x 100mm square.

Parapet Loads

Horizontal parapet loads to be 1.6kN/m in accordance with table NA.8 to BS EN 1991-1-1-2002 noting crowding unlikely.

Vehicle Loads

The footings will be designed for vehicle access up to 5 tonnes. Allowance shall be made for one axle to be loaded to 60% of the total vehicular load with a dynamic factor of 1.1 applied. Note load combinations to be as per table 5.1 to BS EN 1991-2.

A demountable bollard shall be placed at grid location SU 79874 69058 and on the adjacent Greenways structures sufficient to prohibit unauthorised vehicles accessing the footbridge.

4.1.6. Actions relating to Special Order traffic, provision for exceptional abnormal indivisible loads including location of vehicle track on deck cross section

Not applicable.

4.1.7. Accidental actions

No allowance has been made for debris impact during flood events, as the dominant direction of water flow is understood to encourage debris down the existing channel (as per Clients advice).

4.1.8. Action during construction

Not applicable.

4.1.9. Any special action not considered above

Water Load

The considered water load model is as follows:

- In accordance with BS 6349-1-2:2016 Annex E.1, steady current drag forces will be determined on the flood control structure based on a water velocity corresponding to the flow of 10.48m/s at 1:100 year.

4.2. Heavy or high load route requirements and arrangements being made to preserve the route, including any provision for future heavier loads or future widening

Not applicable.

4.3. Proposed minimum headroom to be provided

The northern bridge soffit will be an average of 44.892mOD.

The southern bridge soffit shall be +44.75mOD.

The soffit of the flow control structure will be located at +44.55mOD.

4.4. Authorities consulted, and any special conditions required

The following organisations shall be consulted with regards to special conditions and requirements during the detailed design stage:

- South East River Trust
- Wokingham Borough Council
- Environmental Agency

4.5. Standards and documents listed in the technical approval schedule (TAS)

Principal design standards to be adopted	Eurocodes BS EN 1990 BS EN 1991	Shall be adopted as the principal standard for the design of structures incorporating the requirements of the UK National Annexes where required
	BS 6349-1-2	Maritime works. General. Code of practice for assessment of actions
Geotechnical	BS EN 1997-1	Eurocode 7: Geotechnical Design – General Rules and National Annex
Health & Safety	HSE 2015	Construction (Design and Management) Regulations
Temperature	BS EN 1990	Eurocode 0: Basis of structural design

	BS EN 1991-1-5	Eurocode 1-5: General actions – Thermal actions
Wind Loads	BS EN 1991-1-4	Actions on structures – General actions – Wind actions
Soils - General	BS EN 1997-1	Geotechnical design – General Rules
Timber – Principal standards	BS EN 1995-1	Design of timber structures – Part 1 General
	BS EN 1995-2	Design of timber structures – Part 2 Bridges

Concrete

Specification	BS EN 206-1	Specification, performance, production and conformity
	BS 6349-1- 4	Maritime Works: General - Code of practice for materials
	BS 8500	Concrete - Complementary British Standard
Principal standards	BS EN 1992	Eurocode 2: Design of concrete structures
Execution	BS EN 13670	Execution of concrete structures

Steels and other materials

Principal standards	BS EN 1993	Eurocode 3: Design of steel structures
Execution	BS EN 1090	Execution of steel structures and aluminium structures
Specification	BS EN 10219-1	Cold formed welded structural hollow sections of non-alloy and fine grain steels. Technical
	BS EN 10248	Hot rolled sheet piling of non-alloy steels. Technical delivery conditions.
	BS EN 10025	Hot rolled structural steels

4.5.2. Additional relevant Standards

None proposed.

4.6. Proposed Departures from standards given in 4.5

None proposed.

4.7. Proposed Departures from standards concerning methods for dealing with aspects not covered by standards in 4.5

None proposed.

5. Structural Analysis

5.1. Methods of analysis proposed for superstructure, substructure and foundations

Foundations

The bridge footings are which will be analysed by means of hand calculations and in-house spreadsheets software.

Flood control structure

The steel beam shall be assessed utilising closed form hand calculations and in-house design spreadsheets.

5.2. Description and diagram of idealised structure to be used for analysis

Figures 3 below demonstrate a simplified idealised structure that will be used for analysis of the bridge footings.

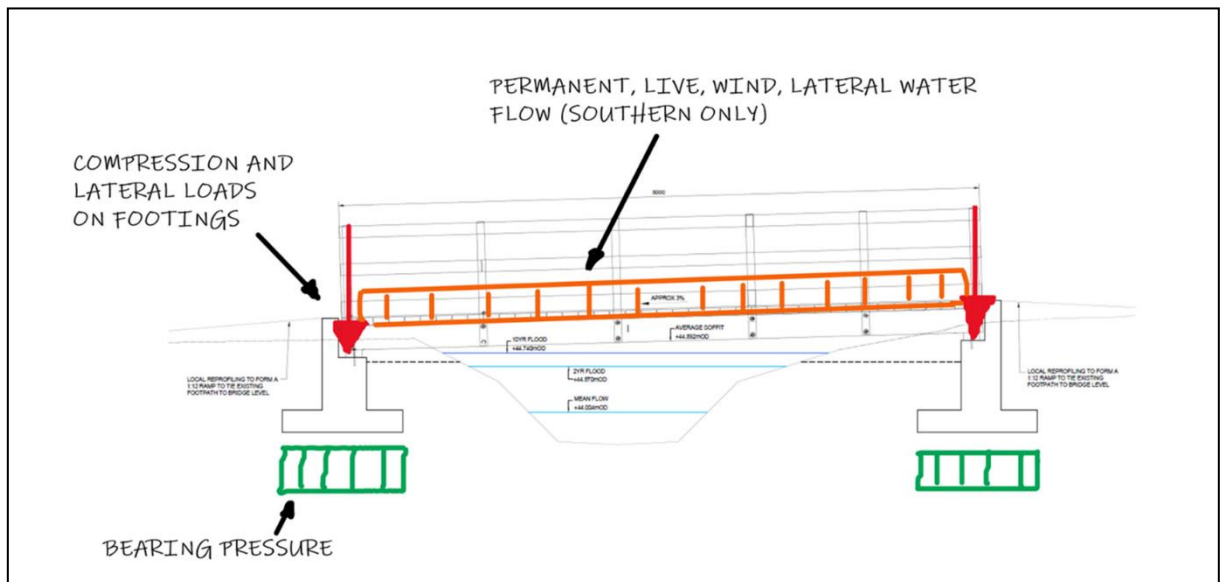


Figure 1. Idealised load diagram for bridge structure, flow control structure and foundation loading

5.3. Assumptions intended for calculation of structural element stiffness

The stiffness of concrete sections shall be considered based on cracked section properties where the section is behaving under tension and/or bending. Uncracked section properties shall be utilised when under direct compression only.

The stiffness of structural steel elements shall be based on the elastic section properties.

5.4. Proposed range of soil parameters to be used in the design of earth retaining elements

See Section 6.

6. Geotechnical Conditions

6.1. Acceptance of recommendations of the ground investigation report (reference/dates) to be used in the design and reasons for any proposed changes

A Ground Investigation Report (GIR) has not been produced for this project.

Soil properties have been derived from the results included within the geotechnical factual report ref '1921661 R01 (01)' which summarises the geotechnical investigation undertaken by RSK.

Stratigraphy and design ground model

The ground investigation locations are shown in Figure 5.

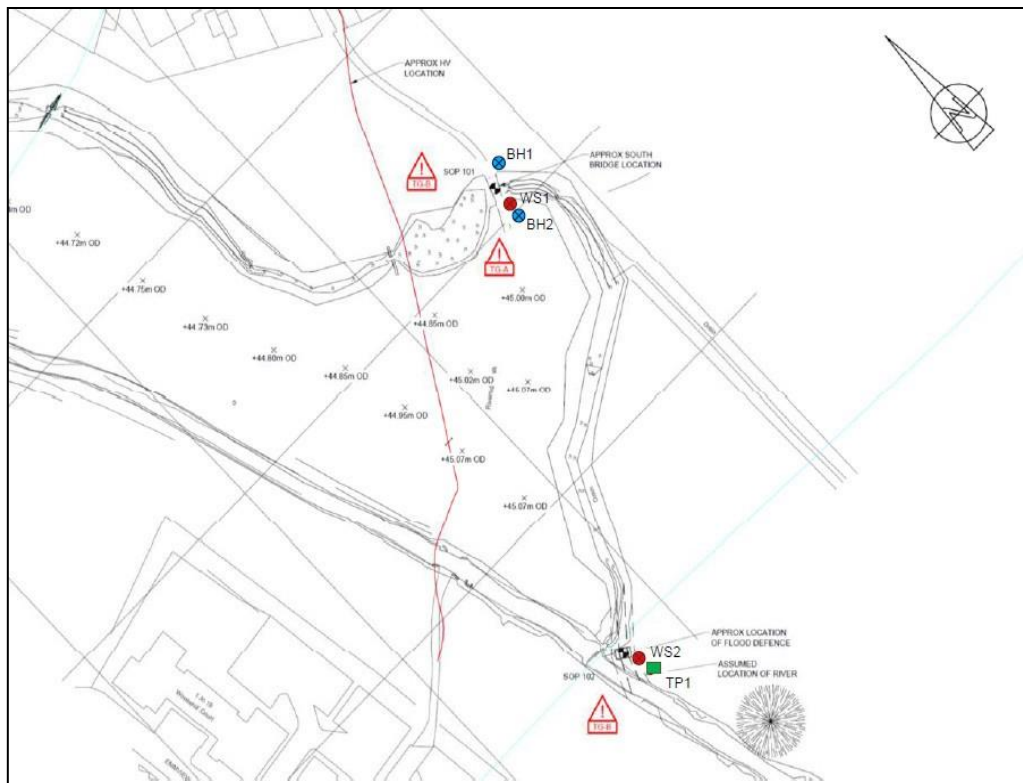


Figure 5. Ground investigation locations (from Ground Investigation Factual Report by RSK)

The ground model to be used for the design is as below:

Table 4. Ground model adopted for design

Strata	Top Level (mBGL)	Layer Thickness (m)
Top Soil	0	0.5
Alluvium	0.5	4
London Clay Formation	4.5	Unknown

Existing ground levels vary across the site from approx. 45.5mOD to 44.7mOD with a relatively consistent depth of topsoil to 500mm throughout.

The top of London clay varies between +42.37mOD to +40.99mOD and a level of +41.00mOD shall be adopted within design.

Characteristic geotechnical parameters

The ground properties to be used in the design is as below:

Table 5. Characteristic geotechnical properties adopted for design

Stratum	γ kN/m ³	c', k kPa	ϕ'_{cv}, k °	c_u, k kPa	E_u' MPa	E MPa
Top Soil	18	0	20	5	1.75	1.5
Alluvium	18	0	25	40	15.75	12.6
London Clay Formation	20	0	23	75	26.25	21

Earth pressure coefficients for the design of the footings will be calculated in accordance with Appendix C of BS EN 1997-1 using Design Approach 1.

6.2. Summary of design for highway structure in the ground investigation report

The information included in Factual Report – Ground Investigation Report ref '1921661 R01 (01)' is to be used.

6.3. Differential settlement to be allowed for in the design of the structure

Significant differential settlement not envisaged to occur.

6.4. If the ground investigation report is not yet available, state when the results are expected and list the sources of information used to justify the preliminary choice of foundations

A review of the raw data has been undertaken and design properties derived sufficient to inform the design process. Completion of a GIR and GDR shall not be undertaken to reflect the relative low complexity of the project.

7. Check

7.1. Proposed Category and Design Supervision Level

Structure Category 1 (structures with a single simply supported span of 5m or greater but less than 20m) and Design Supervision Level 2.

The detailed design of the bridge foundations will be carried out by Tony Gee and Partners.

The detailed design and check of the bridge structure will be carried out by Sarum Hardwood Structures Ltd.

7.2. If Category 3, name of proposed Independent Checker

Not applicable.

7.3. Erection proposals or temporary works for which Type S and P Proposals will be required, listing structural parts of the permanent structure affected with reasons

Not applicable.

8. Drawings and Documents

8.1. List of drawings (including numbers) and documents accompanying the submission

Refer to Appendix B for the following General Arrangement Drawings

A120099-TGEE-ZZ-XX-DR-C-0001 P01	Existing Location Plan
A120099-TGEE-ZZ-XX-DR-C-0002 P05	New Bridge Locations
A120099-TGEE-ZZ-XX-DR-C-0005 P05	Proposed bridge sections
A120099-TGEE-ZZ-XX-DR-C-00020 P02	North Bridge Footings
A120099-TGEE-ZZ-XX-DR-C-00021 P02	South Bridge Footings
A120099-TGEE-ZZ-XX-SPE-DRG-ECV-0000001 P03	Ground Investigation Locations Plan

Appendix A - CDM Review

Document no: A120099-TGEE-M0-XX-RP-C-0001
Rev: P01

Date: 17/06/2022
Page 19

349

Activity/ Element	Design item giving rise to risk	Consequence of item giving rise to risk	Persons at risk		Design action to eliminate risk or reduce risk	Residual risk – risks that cannot be designed out and required control action by others	Status (live / Closed)	COMDE
			Site works area	Others				
Bridge Footings								
1.	Unexploded Ordnance UXO	Explosion, contamination and fatalities	✓	✓		Contractor to use the mitigation measures developed in conjunction with UXO consultant.	Live	C
2	High channel levels during flooding	Risk of drowning	✓			Contractor to monitor weather conditions.		
3	Activities adjacent to water and / or over water and excavations.	Chance of personnel or plant falling into the water resulting in drowning and / or injury. Risk of drowning.	✓		Edge protection systems (pedestrian and/or vehicle as appropriate) to be provided where possible.	The works will be undertaken by an experienced contractor who will apply appropriate risk assessment and safety measures. Training of site operatives.	Live	C O M
4.	Manual handling and ergonomics associated with heavy components.	Falling personnel or objects.	✓		Minimise size / weight of elements with efficient design as far as possible.	Automated mechanical methodology to be employed where practical. Residual manual handling and ergonomics to be considered at detailed design.	Live	C

350

Activity/ Element	Design item giving rise to risk	Consequence of item giving rise to risk	Persons at risk		Design action to eliminate risk or reduce risk	Residual risk – risks that cannot be designed out and required control action by others	Status (live / Closed)	COMDE
			Site works area	Others				
5.	Lifting operations – new bridges, steelwork, prefabricated rebar cages and shutters.	Falling Objects Crane located too close to the new footings causing settlement, cracking or failure	✓		Efficient design to reduce size of elements and therefore number of lifts. Bridge designer to agree with the Contractor the acceptable crane loads and support locations.	Experienced contractor to plan lifts and provide suitable briefing and PPE to staff. Temporary works designs to consider lift operations. Contractor to ensure that crane supports are situated a sufficient distance from the footings.	Live	C
6.	Contaminated land	Working with locally present contaminated soil/water during excavation work. Health hazard.	✓		Review ground investigation data on contamination. Assist contractor for mitigation.	Contractor to use the mitigation measures. Use suitable PPE	Live	C
7.	Striking of live services Striking foul sewer line	Electric shocks, water leaks etc. Health Hazard	✓	✓	As-built records of existing services to be provided by Client at detailed design stage	Striking of unknown services, Striking live services. Carry out a subsurface investigation (CAT scan or similar) so that works can be planned to avoid services where possible.	Live	C



Activity/ Element	Design item giving rise to risk	Consequence of item giving rise to risk	Persons at risk		Design action to eliminate risk or reduce risk	Residual risk – risks that cannot be designed out and required control action by others	Status (live / Closed)	COMDE
			Site works area	Others				
8.	Pedestrian areas, risk of members of the public entering the water.	Members of the public injured or drowning.		✓		Communicate to the contractor and client the safety equipment needed. Inform the client of the need to maintain safety equipment.	Live	M O

351

Appendix B - Drawing



DO NOT SCALE FROM THIS DRAWING

- NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.
 3. FOR GENERAL NOTES REFER TO DRAWING A120099-TGEE-ZZ-XX-DR-C-0002
 4. UTILITIES SHOWN BASED ON UTILITY DRAWINGS PROVIDED BY THE CLIENT. REFER TO:
SOUTH EAST WATER REF: NRSWA/17/06/17
HV REF: su79886903
LV REF: su79886903
FOUL SEWER LOCATION APPROXIMATED FROM MARK-UPS

- LEGEND:
- LOW VOLTAGE
 - HIGH VOLTAGE
 - POTABLE WATER
 - FOUL SEWER

P01	DM	JUF	ARM	15/12/20	FIRST ISSUE
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REV.	BY	CHKD	APPD	DATE	DESCRIPTION
CODE					DRAWING STATUS

Tony Gee and Partners LLP
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Dover Place,
Ashford, Kent,
TN23 1HU
Tel: 01233 639767

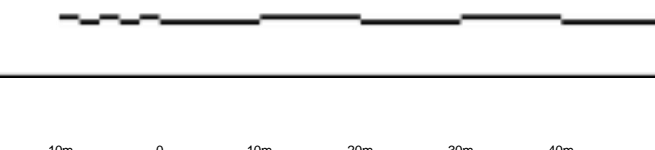
www.tonygee.com
Consulting Engineers

ON BEHALF OF
SOUTH EAST RIVER TRUST

**BRIDGE FOOTING DESIGN
EMM BROOK
RESTORATION**

**EXISTING
LOCATION PLAN**

DRAWING No. A120099-TGEE-ZZ-XX-DR-C-0001

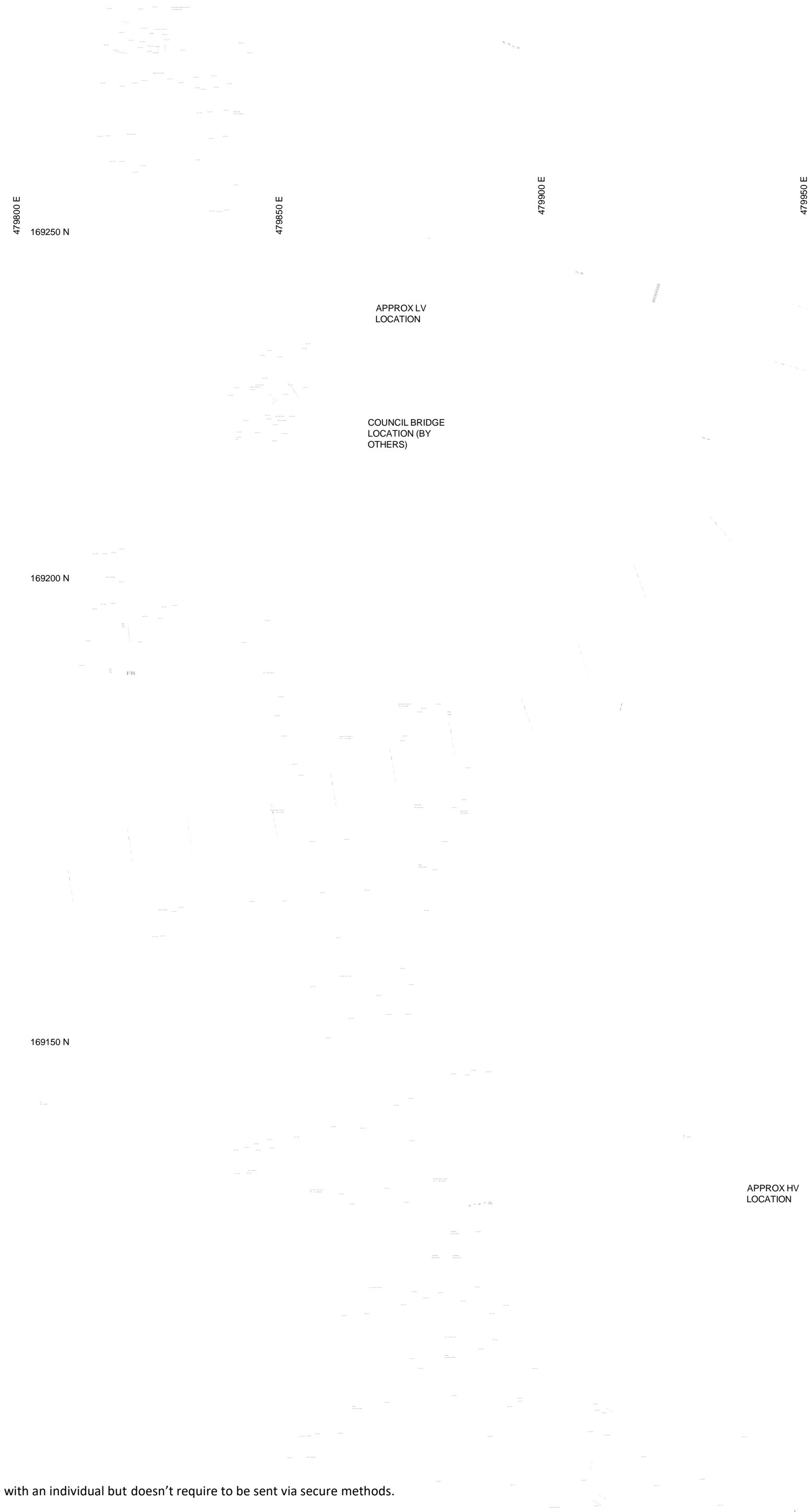


50m

DRAWN : DHM SCALE : 1:500

DESIGNED : JJF ORIGINAL SIZE : A1

REVISION
P01



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NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.
 3. LOCATIONS SHOWN ON PLAN ARE INDICATIVE ONLY. FINAL LOCATION TO BE AGREED WITH ENGINEER ON SITE.
 4. THIS DRAWING TO BE READ IN CONJUNCTION WITH GI SPECIFICATIONS A120099-TGEE-ZZ-XX-DR-C-0001-000001.
 5. ALL BURIED SERVICES ARE INDICATIVE ONLY AND CONTRACTOR TO VERIFY THE LOCATION OF SERVICES IN THE VICINITY OF THE PROPOSED WORKS.
 6. TOPOGRAPHY AS PER RECEIVED SURVEYS
- DATED SEPTEMBER 2017 AND FEBRUARY 2019 (REF 'EMM BROOK - EXISTING CONDITIONS - UPDATED CBEC -FEBRUARY 2019').
7. CHANNEL DRAWING UPDATED TO REPRESENT THE DESIGN CHANNEL DEFINED ON CBEC DRAWING "EMM BROOK - DESIGN - 11 - DETAIL SECTIONS - 10052019 - JI". NOTE THIS ENVELOPE IS EXCEEDED IN THE 1 IN 2 YEAR FLOOD EVENT

LEGEND:

- LOW VOLTAGE
- HIGH VOLTAGE
- POTABLE WATER
- FW(S) FOUL SEWER

P05 J JF J JF APR 08/12/21 BRIDGE GEOMETRY UPDATED

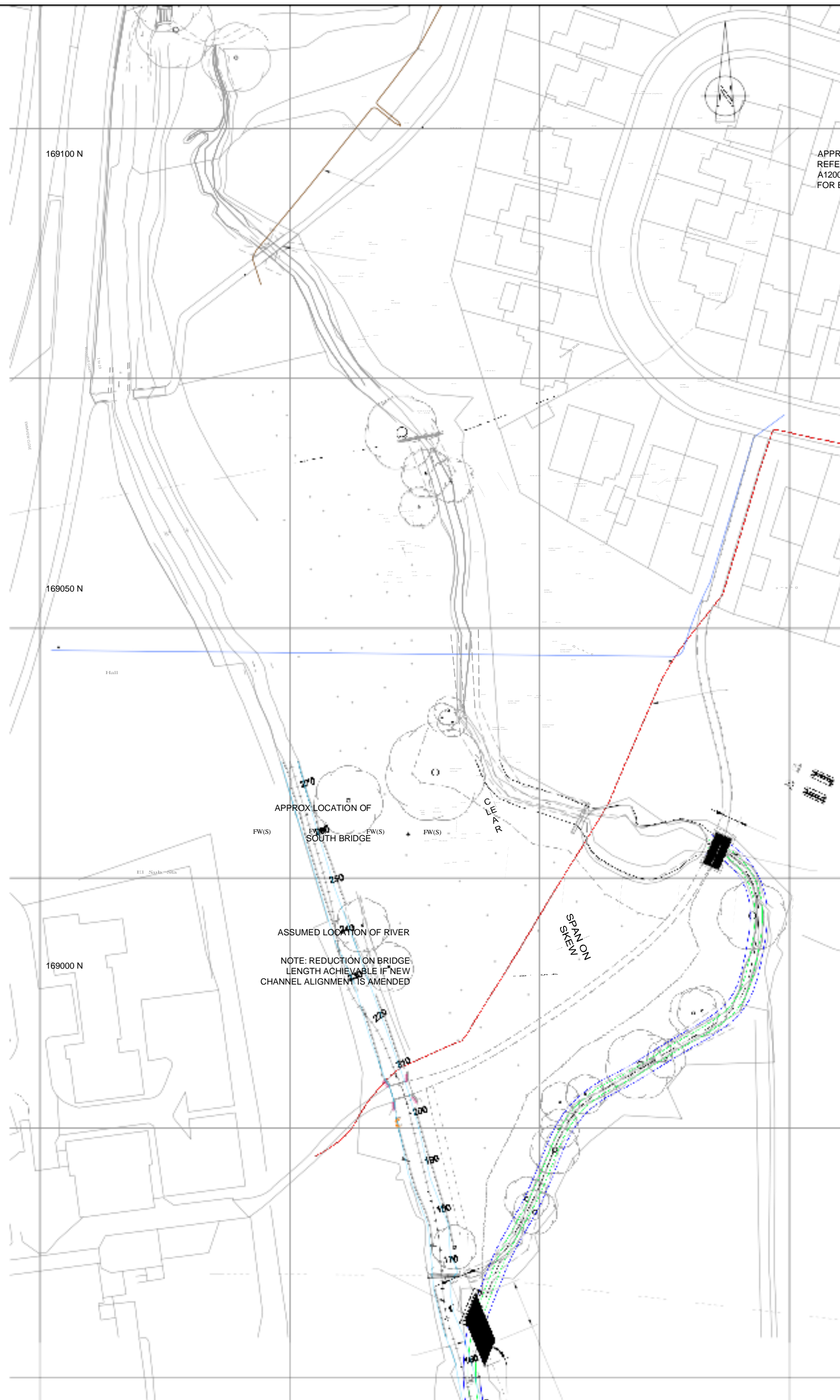
P04 J JF J JF APR 21/12/20 WETLANDS REMOVED

P03 J JF J JF MAY 17/12/20 SOUTH BRIDGE UPDATED

P02 J JF J JF APR 15/12/20 BRIDGES RENAMED

P01 D H M J JF APR 15/12/20 FIRST ISSUE

D H M J JF APR



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CODE		DRAWING STATUS

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ON BEHALF OF
**SOUTH EAST
RIVER TRUST**

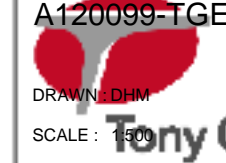
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**EMM BROOK
RESTORATION**

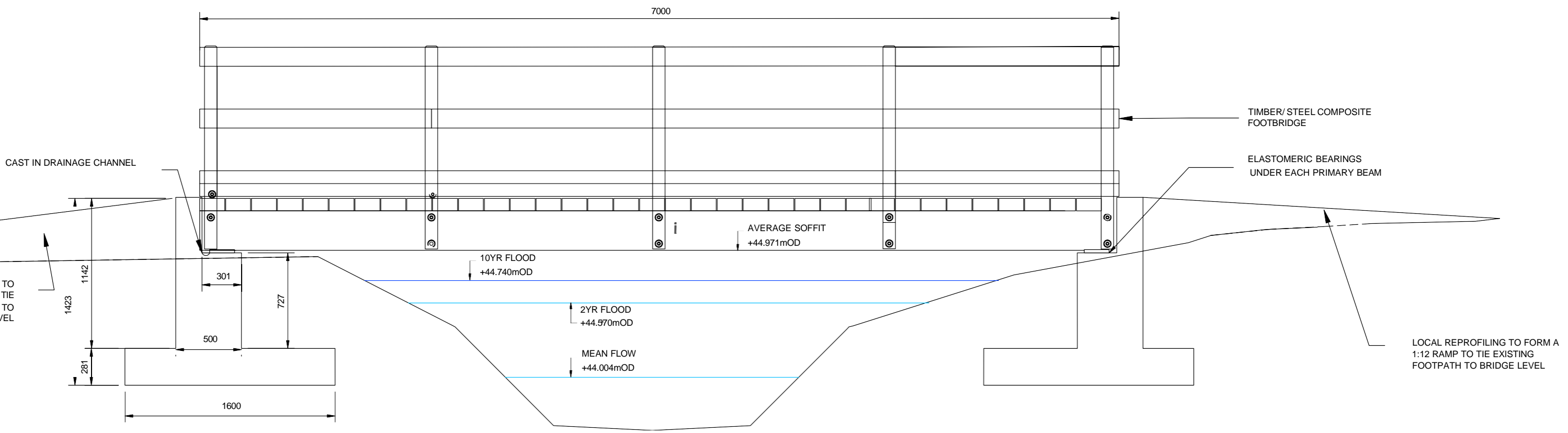
**PROPOSED
NEW BRIDGE LOCATIONS**

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A120099-TGEE-ZZ-XX-DR-C-0002

DRAWN: DJM DESIGNED: JJF REVISION
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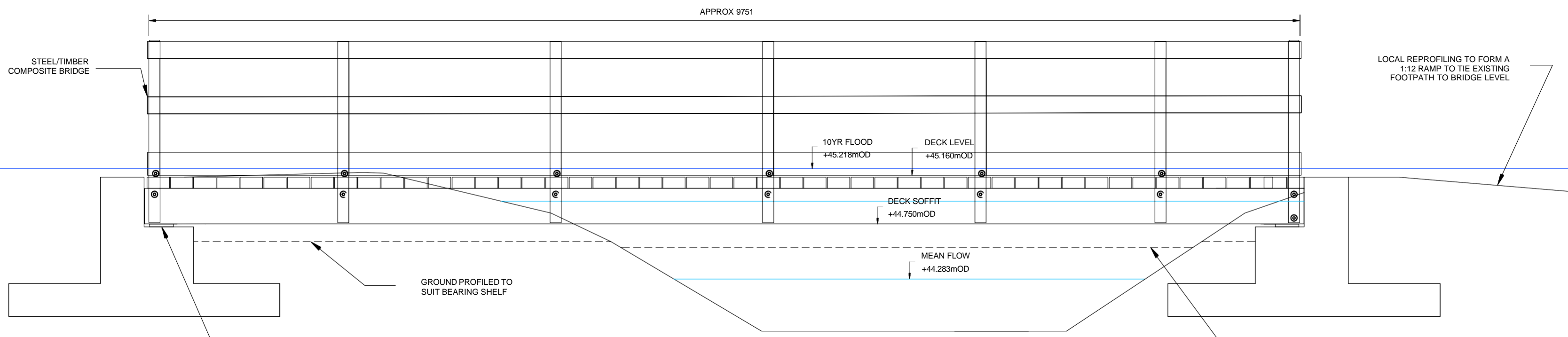
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SECTION THROUGH NORTH BRIDGE

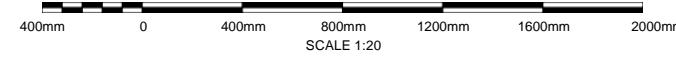
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SECTION DRAWN BASED ON SKEW ARRANGEMENT FOR APPROX 9.6m LONG BRIDGE. SECTION TAKEN THROUGH CENTRELINE OF PROPOSED BRIDGE (I.E BRIDGE SHOWN AT TRUE LENGTH, FOUNDATION LENGTH EXAGGERATED AS SECTION TAKEN ON SKEW)



SECTION THROUGH SOUTH BRIDGE

SCALE 1:20
NOTE: DIMENSIONS TAKEN ON SKEW



DO NOT SCALE FROM THIS DRAWING

- NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.
 3. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRG No. A120099-TGEE-ZZ-XX-DR-C-0002.
 4. DRAWING FOR OUTLINE DESIGN PURPOSES ONLY. EXACT GEOMETRY TBC FOLLOWING CONFIRMATION OF BRIDGE DESIGN AND COMPLETION OF DETAILED DESIGN.

REV.	BY	CHKD	APPD	DATE	DESCRIPTION
P05	JJF	JJF	APM	17/06/22	NORTH BRIDGE AMENDED TO 7m TOTAL LENGTH AND AMENDED TO STEEL/TIMBER COMPOSITE
P04	JJF	JJF	APM	08/12/21	SECTION UPDATED FOR REVISED SKEW
P03	JJF	JJF	APM	16/12/20	SECTION UPDATED FOR SKEW
P02	JJF	JJF	APM	15/12/20	MINOR AMENDMENTS
P01	DHM	JJF	APM	15/12/20	FIRST ISSUE

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ON BEHALF OF
SOUTH EAST RIVER TRUST

**BRIDGE FOOTING DESIGN
EMM BROOK RESTORATION**

**PROPOSED
BRIDGE SECTIONS**

DRAWING No.
A120099-TGEE-ZZ-XX-DR-C-0002

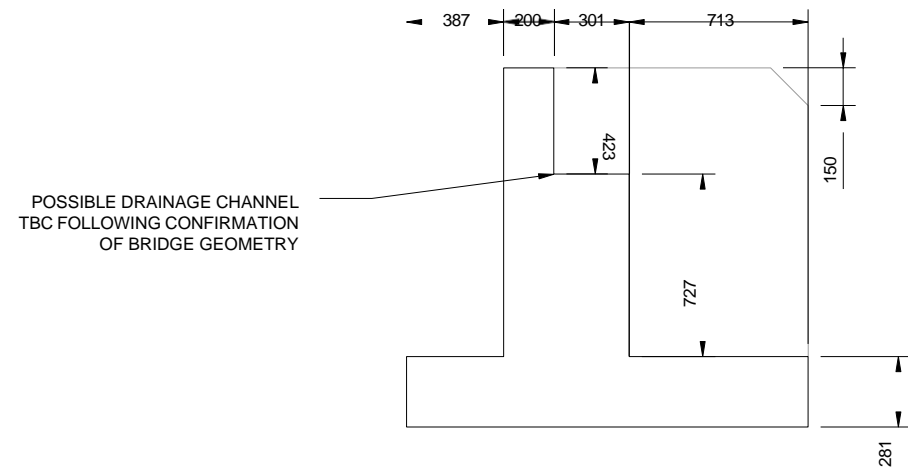
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DHM	JJF	P05

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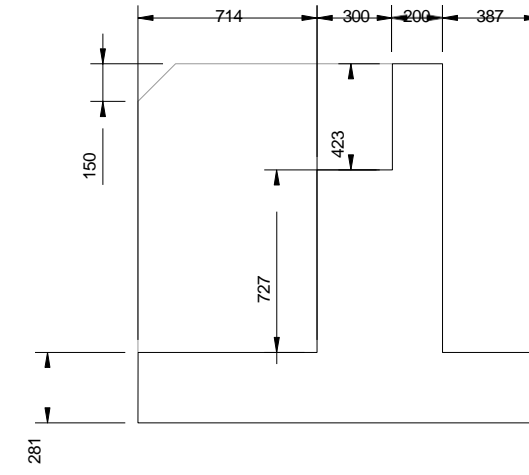
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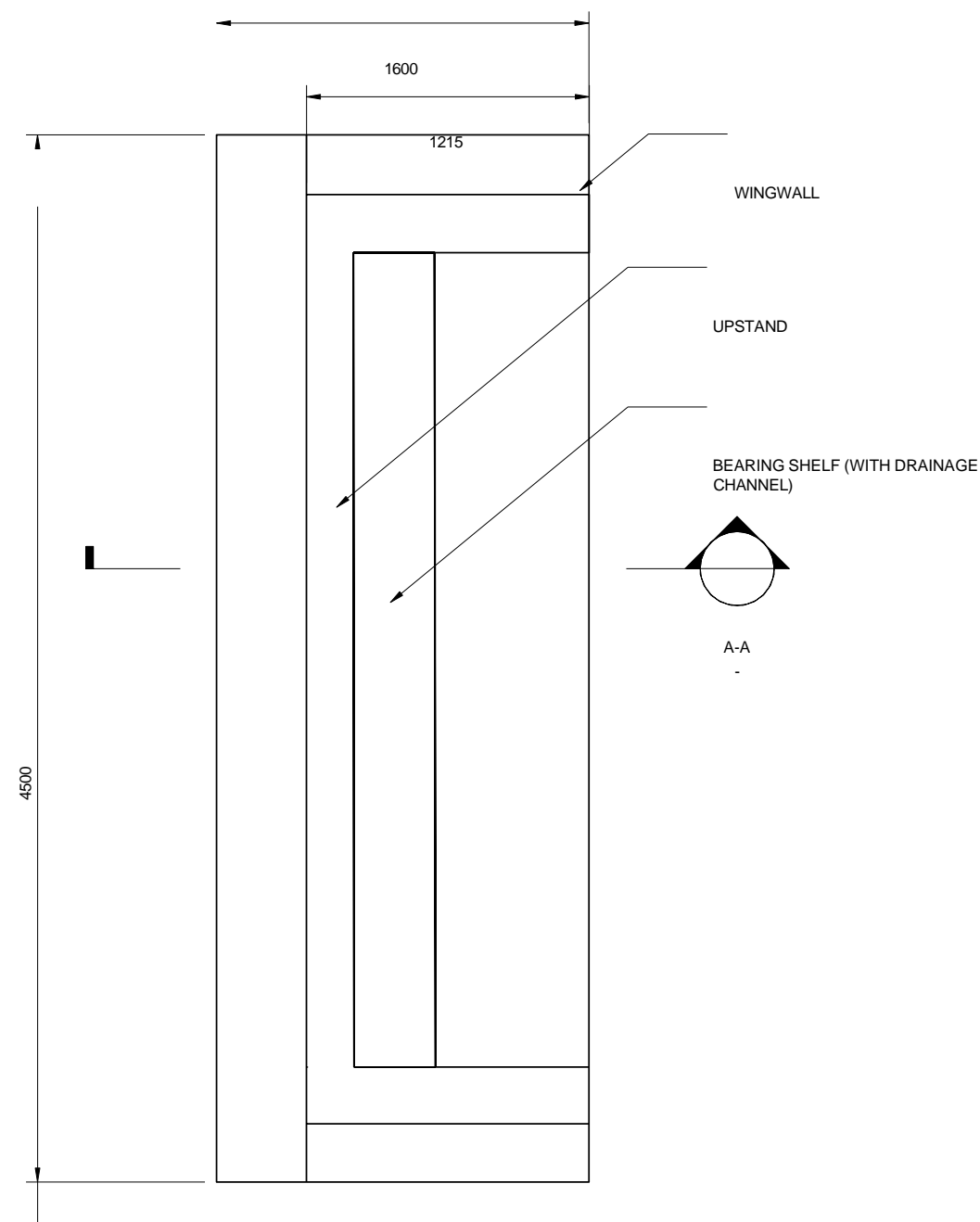
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4. DRAWING FOR OUTLINE DESIGN PURPOSES ONLY. EXACT GEOMETRY TBC FOLLOWING CONFIRMATION OF BRIDGE DESIGN AND SUITABILITY OF FOUNDATION FOR BRIDGE DESIGN LOADS



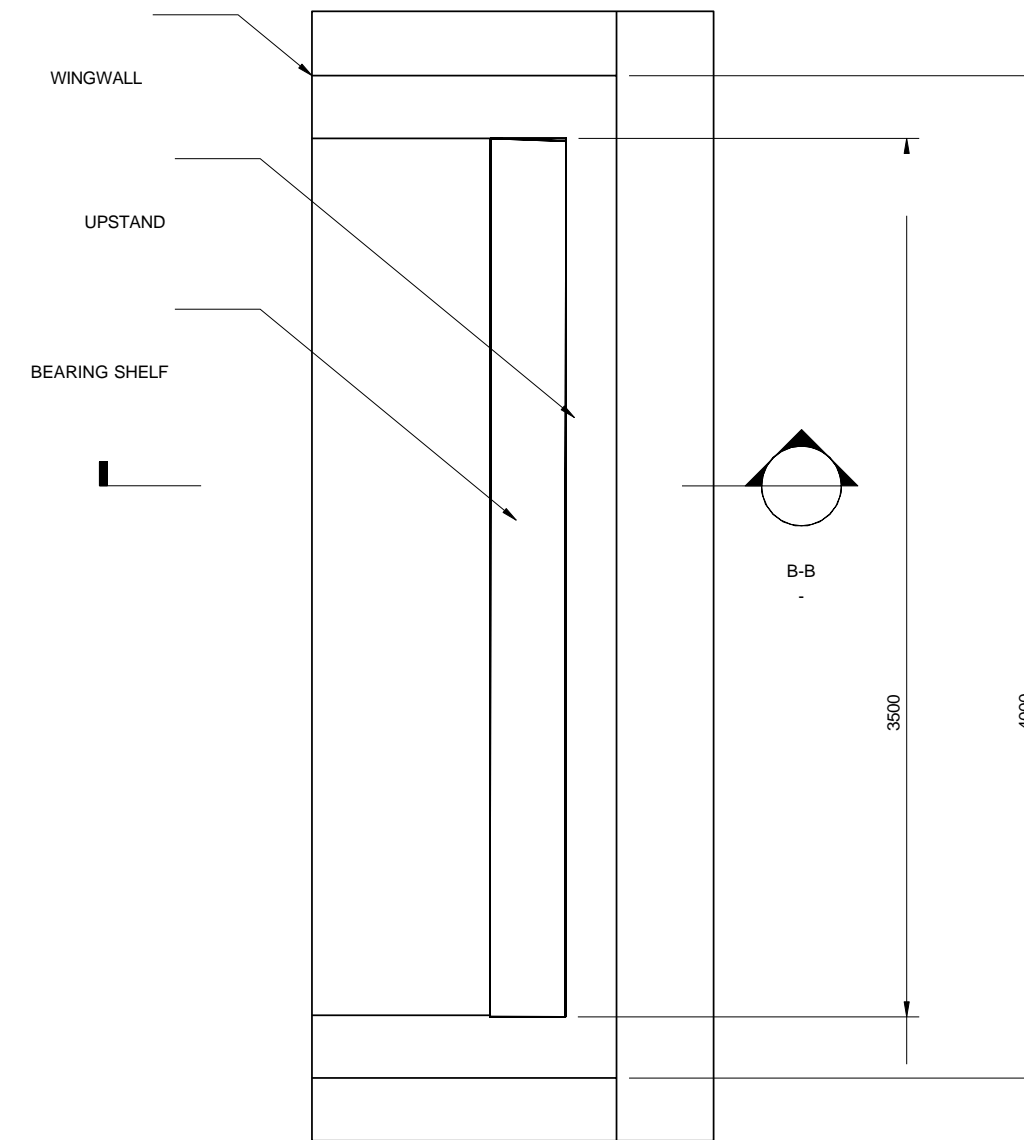
SECTION A-A



SECTION B-B



NORTH BRIDGE LEFT FOOTING



NORTH BRIDGE RIGHT FOOTING

P02	JUF	JUF	JUF	ARM	17/06/22	MINOR DIMENSIONAL AMENDMENTS TO BEARING SHELF
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P01	NFA	JUF	JUF	ARM	08/12/21	FIRST ISSUE
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REV	BY	CHKD	APPD	DATE	DESCRIPTION

					DRAWING STATUS
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Consulting Engineers

ON BEHALF OF

SOUTH EAST RIVER TRUST

**BRIDGE FOOTING DESIGN
EMM BROOK RESTORATION**

**PROPOSED
NORTH BRIDGE
FOOTINGS**

DRAWING No.

A120099-TGEE-ZZ-XX-DR-C-0020

358



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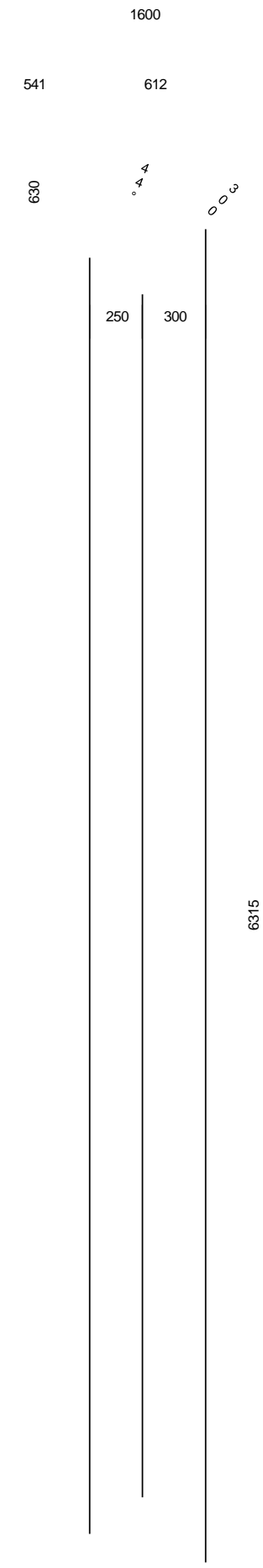
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REVISION
P02

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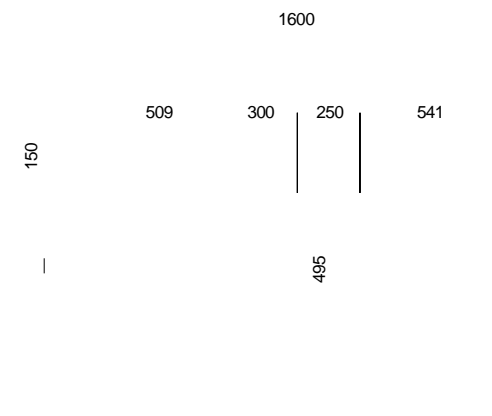
7345



SOUTH BRIDGE
SOUTH FOOTING



SOUTH BRIDGE
SOUTH FOOTING



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NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
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3. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRG No. A120099-TGEE-ZZ-XX-DR-C-0002.
4. DRAWING FOR OUTLINE DESIGN PURPOSES ONLY. EXACT GEOMETRY TBC FOLLOWING CONFIRMATION OF BRIDGE DESIGN AND SUITABILITY OF FOUNDATION FOR BRIDGE DESIGN LOADS

REV.	BY	CHKD	APPD	DATE	DESCRIPTION
P01	NFA	JJF	APM	08/12/21	FIRST ISSUE
	CODE				DRAWING STATUS

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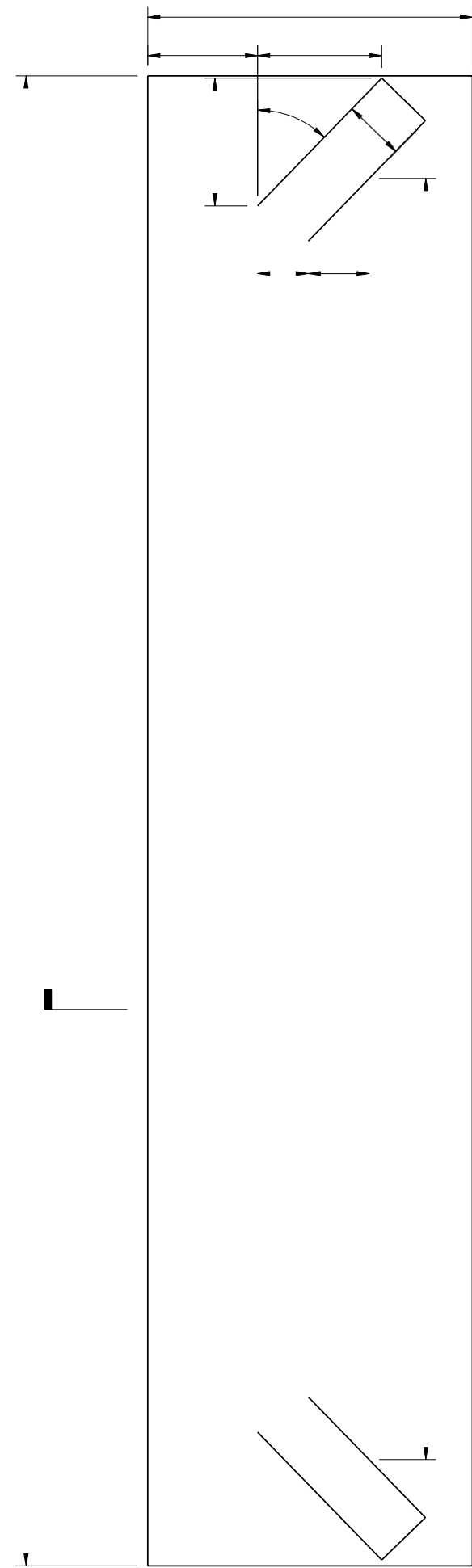
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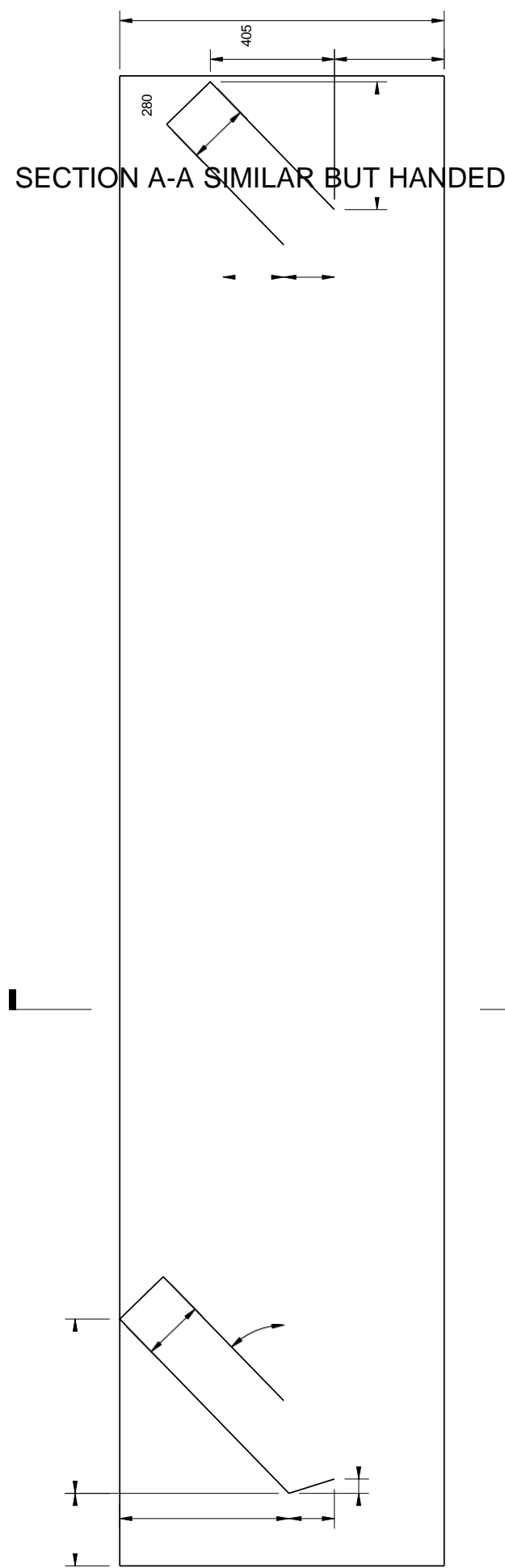
BRIDGE FOOTING DESIGN
EMM BROOK
RESTORATION

PROPOSED
SOUTH BRIDGE
FOOTINGS

361



DRAWING No.



SECTION A-A SIMILAR BUT HANDED

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SCALE 1:20

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DRAWN : DHM DESIGNED : JJF REVISION
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APM			





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Agenda Item 9.

Application Number	Expiry Date	Parish	Ward
230743	26/06/23	Woodley	Bulmershe and Whitegates

Applicant	Mr Hardeep Hans
Site Address	Library Parade, Crockhamwell Road, Woodley, Wokingham, RG5 3LX
Proposal	Full application for the proposed creation of a mixed use building consisting of the retention of the existing 3 no. retail stores at ground floor level and the addition of 14 no. apartments on new first, second and third floor levels, including the erection of three and four storey rear extensions with associated car parking, cycle and bin stores, following partial demolition of the existing building
Type	Full
Officer	Connie Davis
Reason for determination by committee	Major application

FOR CONSIDERATION BY REPORT PREPARED BY	Planning Committee on Wednesday, 14 June 2023 Assistant Director – Place and Growth
RECOMMENDATION	<p>APPROVAL subject to conditions and Informatives & completion of S106 legal agreement to secure the following:</p> <ul style="list-style-type: none"> - Affordable Housing - Employment Skills Plan <p>ii) Refuse full planning permission if the legal agreement is not completed within three months of the date of this resolution (unless officers on behalf of the Assistant Director – Place and Growth agree to a later date for completion of the legal agreement)</p> <p>The S106 to include the following heads of terms:</p> <p><u>Affordable Housing</u></p> <p>To secure an in lieu affordable housing contribution of £166,644.47</p> <p><u>Employment, Skills and Training</u></p> <p>To secure a construction phase Employment Skills and Training Plan or equivalent financial contribution in accordance with Policy TB12 of the MDD and based on the value of the Construction Industry Training Board Benchmark.</p>

SUMMARY

The application relates to the Library Parade building within Woodley Town Centre. The proposal seeks to convert the existing first floor offices and extend the existing building to provide 14 residential units – a mix of 5 x 2-bed and 9 x 1-bed apartments – whilst retaining the existing retail units at ground floor. Parking will be from the rear whilst access to the flats will be from the front and rear of the site.

A similar proposal was refused at committee on the 8 March 2023 for the following reason:

By reason of its proximity to Sandford Court, the proposed extension to the existing building would result in overlooking to neighbouring occupiers of second floor south facing flats, causing unacceptable harm to their private residential amenity. The proposal would therefore be contrary to the NPPF, policies CP1 and CP3 of the Core Strategy and the Borough Design Guide SPD.

This revised application seeks to overcome those concerns through reducing the number of dwellings and proximity of the third floor to Sandford Court. It should also be noted that Members of the Planning Committee undertook a site visit for the refused scheme.

The proposal continues to result in a satisfactory outcome on traffic and parking grounds because of its town centre location. The proposed changes to the built form are considered in keeping with the street scene in terms of scale, mass and design, whilst improving the public realm and one of the main entrances to the town centre precinct. In the context of a dense town centre location, there is also adequate resident and neighbour amenity, having sought to positively address the reason for refusal for the earlier similar scheme (ref. 222367) which centred around overlooking concerns for nearby residents in Sandford Court. Whilst there is a loss of office floor space in the town centre, this is outweighed by the provision of residential dwellings. The NPPF is clear that where a development does not result in significant harm and is sustainable, it should be supported.

The location of the development is considered to be highly sustainable and would allow easy and safe access to facilities and services. The proposal would provide public benefits by securing a policy compliant financial contribution towards the provision of affordable housing as well as securing an employments skills plan. It is also noted that securing the delivery of such suitable and sustainable sites, is far more preferable than accepting unsatisfactory, less sustainable sites elsewhere in the borough. Officers are therefore recommending the application for approval, subject to the conditions listed and a S106 legal agreement to secure onsite affordable housing and the employment skills plan.

RELEVANT PLANNING HISTORY

Application Number	Proposal	Decision Date
222367	Full application for the proposed creation of a mixed use building consisting of the retention of the existing 3 no. retail stores at ground floor level and the addition of 16 no.	Refused by the Planning Committee at their meeting on 8 th February 2023. The reason for refusal reads as follows:

	apartments on new first, second and third floor levels, including the erection of three and four storey rear extensions with associated car parking, cycle and bin stores, following partial demolition of the existing building	<i>By reason of its proximity to Sandford Court, the proposed extension to the existing building would result in overlooking to neighbouring occupiers of second floor south facing flats, causing unacceptable harm to their private residential amenity. The proposal would therefore be contrary to the NPPF, policies CP1 and CP3 of the Core Strategy and the Borough Design Guide SPD.</i>
160309	Full application for the proposed change of use of part of first floor from Gymnasium (Use Class D2) to office (Use Class B1)	Approved 17/03/2016
100497	Proposed erection of 3 air conditioning condenser units onto rear wall facing goods yard	Approved 23/09/2010
F/2008/1536	Change of use of first floor from A1 (Offices) to Yoga & Pilates Studio (D2)	Approved 20/08/2008
F/2004/3622	Proposed change of use of unit on first floor from A2 (professional and financial services) to D2 (assembly and leisure) to be used as a fitness centre	Approved 17/02/2005

DEVELOPMENT INFORMATION	
Proposed units	14 residential units
Number of affordable units proposed	In lieu financial contribution equivalent of 2.8 residential units (£166,644.47 index-linked)
Previous land use	Retail (ground floor) and office (first floor) (Class E)
Existing parking spaces	18 parking spaces
Proposed parking spaces	10 parking spaces
CONSTRAINTS	Major Development Location – Woodley Woodley Town Centre Primary shopping area Potentially contaminated land consultation zone

CONSULTATION RESPONSES

WBC Transport	No objection
WBC Ecology	No response received
NatureSpace Ecology (Newts)	No objection
WBC Drainage	No objection
WBC Property Services	No response received
WBC Sports Development (Places and Neighbourhoods)	No response received
WBC Environmental Health	No objection
Southern Gas Networks	No objection
SSE	No objection
Thames Water	No objection
WBC Economic Prosperity & Place (Community Infrastructure)	No objection subject to securing an in lieu financial contribution towards the provision of affordable housing
WBC Green Infrastructure	No response received
WBC Landscape and Trees	No objection
WBC Planning Policy	No response received
WBC Health and Wellbeing	No response received
Crime Prevention Design Advisor	No response received
NHS Wokingham	No response received
WBC Community Safety	No response received
Royal Berkshire Fire & Rescue Service	Observation made (see para 25)
WBC Education (School Place Planning)	No response received
WBC Cleaner and Greener (Waste Services)	No response received
WBC Economic Development (Skills and Employment)	No objection subject to Employment and Skills Plan contribution being secured

REPRESENTATIONS

Town/Parish Council: Objection on the following grounds:

- Overlooking impact onto Beechwood Primary School (**see para 54**)
- Proposal removes existing car park provision for occupants of the retail units (see para) - Unwelcome 'wind tunnel' effect between the development and neighbouring buildings (**see para 63**)

Local Members: No comments received.

Neighbours: 6 letters of objection from local residents on the following grounds:

- Construction of the development with regards to noise, dust, privacy and health (**see para 89**)
- Concern about privacy – there would be a clear line of sight between both buildings from the proposed balconies (**see para 52**)
- Inadequate parking available for those who live and work in the area and for the new flats and ground floor retail (**see paras 64-78 for parking matters**)
- Extra traffic into precinct area when car park charges are due to increase (**see paras 61-74 for parking and highway matters**)

- The site will also impede deliveries to the site once the electric fence is installed and will further restrict the turning circle in our service area (**see paras 64-76 for parking and highway matters**)
- The building would be built next to the back garden of Beechwood Bungalow and would affect this neighbouring property's natural light and would be overlooked from proposed bathroom windows (**see paras, 54, 58**)
- Library Parade will become a wind tunnel with decreased light and general appeal which would affect the current retail units (**see paras 58 and 63**)
- Cllr Shirley Boyt raised the following comments: Disabled parking has been located at the furthest point possible from the lift. These would be better suited closer to the building (**see para 41**)

PLANNING POLICY

National Planning Policy Framework
National Design Guide
National Planning Practice Guidance

Core Strategy (CS)

CP1 – Sustainable Development
 CP3 – General Principles for Development
 CP5 – Housing Mix, Density and Affordability
 CP6 – Managing Travel Demand
 CP9 – Scale and Location of Development Proposals
 CP13 – Town Centres and Shopping
 CP15 – Employment Development
 CP17 – Housing Delivery

MDD Local Plan (MDD)

CC01 – Presumption in Favour of Sustainable Development
 CC02 – Development Limits
 CC03 – Green Infrastructure, Trees and Landscaping
 CC04 – Sustainable Design and Construction
 CC06 – Noise
 CC07 – Parking
 CC10 – Sustainable Drainage
 TB05 – Housing Mix
 TB07 – Internal Space Standards
 TB12 – Employment Skills Plan
 TB15 – Major Town, and Small Town/District Centre development
 TB16 – Development for Town Centre Uses
 TB20 – Service Arrangements and Deliveries for Employment and Retail Use
 TB21 – Landscape Character

Other

Borough Design Guide Supplementary Planning Document
 CIL Guidance + 123 List
 Affordable Housing Supplementary Planning Document
 Sustainable Design and Construction Supplementary Planning Document

PLANNING ISSUES

Description of Development

1. The proposal involves the partial conversion and change of use of an extensions to the existing Library Parade building, to accommodate 14 residential units (5 x 2-bed and 9 x 1-bed apartments). The existing ground floor retail units are to be retained. More specifically, it comprises the following:
 - Retention of the ground floor retail units
 - Change of use of the first floor from Class E offices to comprise 6 x 1-bed residential units and 1 x 2 bed unit (duplex)
 - Demolition of existing roof and addition of two floor levels to the main building to accommodate 3 x 1 bed units and 3 x 2 bed units at second floor (one of which is the duplex) and 2 x 2 beds at third floor
 - Erection of a three storey extension to the rear to accommodate the 2 x 1-bed & 1 x 2-bed residential units (units 2, 3 and 1 respectively)
 - Erection of a four storey extension to the rear to accommodate lift shaft and staircase
 - Provision of 10 car parking spaces including 2 disabled spaces and six EV charging points, 17 cycle stands (with 4 retained for the retail stores). In addition, bin stores are proposed. Alterations to the existing car park access and changes to the existing boundary treatments at the rear
 - Internal works to suit

Site Description and its Surroundings:

2. The proposal site comprises a 1980's two storey building located within the Woodley Town Centre, which currently hosts 3no retail units at ground floor and offices above. There is an existing access and car parking area to the rear of the building. The building addresses Library Parade and is located in a prominent location at an entranceway into the town centre. It therefore functions as a focal point within the area.
3. The building sits opposite to a three storey mixed use building with a Lidl supermarket on the ground floor, a surgery and residential uses on the first and second floors respectively. A public car park exists to the east of the site and two single storey buildings to the south-east of the site, comprising of the public library and Citizen's Advice Woodley. Immediately to the south is a residential bungalow and the Beechwood Primary School further to this. To the west is another three storey mixed use building facing the main shopping precinct. There are no listed buildings on or adjoining the site, it is not located within a Conservation Area, and is not within an area of high flood risk.

Principle of Development:

4. Section 38(6) of The Planning and compulsory purchase Act 2004 requires that applications for planning permission be determined in accordance with the Development Plan unless material considerations indicate otherwise. In this case the Development Plan comprises the Core Strategy (CS) and the Managing Development Delivery Local Plan (MDD), which are read alongside the NPPF. The MDD Local Plan

policy CC01 states that planning applications that accord with the policies in the Development Plan for Wokingham Borough will be approved without delay, unless material considerations indicate otherwise.

5. Policy CC02 of the MDD Local Plan sets out the development limits for each settlement as defined on the policies map. Policy CP9 of the CS sets out that development proposals located within development limits will be acceptable in principle, having regard to service provisions associated with the major, modest and limited categories.
6. The application site is located within a major development location and within a settlement boundary; as such, the principle of the development is acceptable providing it complies with local and national policy and there are no other material considerations which dictate otherwise. Core Strategy policy CP3 states that development must be appropriate in terms of its scale of activity, as layout, built form height, materials and character to the area in which it is located and must be of a high-quality design without detriment to the amenities of adjoining land uses and occupiers.
7. The Council currently accepts that its demonstrable housing land supply is less than five years. Paragraph 11 of the NPPF states that where a local authority unable to demonstrate a five-year supply of deliverable housing sites, the most important policies relating to the application may be viewed as being out of date. It continues to advise that unless there are specific policies in the NPPF protecting the land subject to the application, that permission should be granted unless the adverse impacts of doing so would significantly and demonstrably outweigh the benefits when assessed against the NPPF (tilted balance).
8. The principle of the proposed development within Woodley Town Centre is supported by the Local Plan. However, Policy CC01, CC02 and CP9 of the Local Plan are currently considered to be out of date given the Council's inability to demonstrate 5 years' worth of deliverable sites. As such the weight afforded to these policies are reduced in accordance with Paragraph 11 of the NPPF. Notwithstanding this, the development would represent sustainable development in terms of the principle of development where there would not be any other material considerations which would otherwise make this development unacceptable. As such, the principle of the proposed development would remain in accordance with the National Planning Policy Framework whereby the housing strategy policies of the Local Plan are out of date.

Loss of office floorspace:

9. Policy CP13 of the CS requires the protection of retail centres, with paragraph 4.67 aiming to maintain the range of activities so that they are at the heart of sustainable communities. Proposals leading to the loss of town centre uses (including offices) will not be allowed unless it is substantiated that there is no deficiency in the catchment. Policy CP15 of the Core Strategy states there should not be any overall net loss of Class B floorspace within the borough.
10. Policy TB15 of the MDD Local Plan indicates that development should be of a scale and form that is compatible with the retail character of the centre and its role in the hierarchy of retail centres; that it retains or increases the provision of Class E (former class A1) (shops) uses in primary shopping frontages; that it contributes to the provision of day and evening/night-time uses and is compatible with other uses; and enhances vitality and viability. It also states the Council will support the provision of self-contained

dwellings in vacant or under used units above ground-floor town centre uses where a suitable/appropriate level of amenity for occupants can be provided.

11. The proposal change of use of the first floor to residential would result in a modest loss of 319sqm or 100% of the above ground office floorspace of the building. It is understood there have been difficulties with attracting tenants for the offices and consequently the use has become dormant and unviable. The loss of office floorspace requires consideration of whether (a) it would impact the range of activities in the town centre; and (b) it would impact upon the quantum and range of employment floorspace across the borough.
12. In relation to the first question, the proposals would retain the ground floor retail, so there would be no policy conflict in that regard. There would be a modest loss of town centre use in the form of office floor space. However, this would be replaced by 14 residential units in an accessible location, and this is supported by policy TB15 of the MDD Local Plan, where there is an intent to provide day and evening/night-time uses. It would also arguably introduce more people into the town centre to contribute to its vitality and viability.
13. Moving to the second question, the proposal would lead to the modest loss of 319sqm of B1 employment floorspace. This is a relatively modest reduction in the context of policy CP15, and based on the latest monitoring information, unlikely to lead to a net loss of employment B use floorspace across the borough. The Central FEMA (Functional Economic Market Area) Economic Development Needs Assessment (EDNA) report (October 2016) identifies a recommended net office space requirement for 2013-2036 of at least 93,305m² based on the labour supply approach (although this study has not factored in the allocated Science Park south of the M4) and this suggests the need to retain existing floorspace, not only in town centres.
14. Nonetheless, the Assessment indicates that the rise in the level of floorspace to meet forecast employment growth in the Borough over the Plan period is not being met through the intensification of use brought about through the redevelopment of existing employment areas and new allocations, as envisaged by paragraph 4.70 of the Core Strategy. The floorspace is also continually eroded by Class MA office conversions, thereby undermining the intent of the policy.
15. The site is outside any Core Employment Area, as defined in policy CP15; however, it maintains an alternative site and size of employment land within the borough. While the principle of seeking to maintain a variety of employment floorspace provision is an important consideration, it is noted that the site is located close to the Core Employment Areas of Headley Road East and Winnersh Triangle, both of which provide higher quality and more appropriately located office development.
16. Whilst the WBC Planning Policy officer has not commented on this current application, they raised no objections to the former application at the site (ref. 222367) which proposed the loss of the same amount of office space. As such, it is reasonable to conclude they would also not object to this application based on the modest loss of town centre use. On the basis of the above assessment and on balance, the small loss of office floorspace is not objected to in principle.

Retail frontage:

18. Policy TB15 of the MDD Local Plan states that Class E (former class A1) uses should be retained in the primary frontage and A3 uses in secondary shopping frontages. The site is within a primary retail frontage. The proposal would retain the existing retail units at ground floor, so that it would not alter the provision of shops along this primary shopping frontage. No objection is therefore raised.

Density and Dwelling Mix:

19. The NPPF seeks to 'boost significantly the supply of housing' and deliver a wide range of homes, of different types and tenures. Achieving an efficient use of the land within the context of any central and sustainably located site is a key priority both at a national and local level. Paragraph 69 of the NPPF recognises that small and medium sized sites can make an important contribution to meeting the housing requirement of an area and are often built out relatively quickly.
20. Policy CP5 of the Core Strategy and policy TB05 of the MDD Local Plan require an appropriate mix of dwelling types, tenures and sizes so that the housing needs of the community are met. They also require an appropriate dwelling density and R10 of the Borough Design Guide SPD seeks to ensure that the development achieves an appropriate density in relation to local character. A density of around 180 dwellings/hectare is appropriate for this town centre location. No objection is raised in this regard.
21. With regard to dwelling mix, there is a clear departure from the policy requirements with the proposal having a high concentration of 1 and 2 bed units. However, the intent of the Council's policies is to provide a mix of accommodation to cater for the varied needs of the community and to ensure that it is provided where is needed. It is also recognised that this is a town centre site in which a smaller unit scheme such as flats is considered to be appropriate. On this aspect, the proposed mix is supported because of the affordable housing contribution and the town centre location (with a corresponding level of parking provision reflective of the easy access to facilities and services).

Character of the Area:

22. Section 12 of the NPPF 'Achieving well-designed places', reinforces the importance of good design in achieving sustainable development, by ensuring the creation of inclusive and high-quality places. Paragraph 130 of the NPPF includes the need for new design to function well and add to the quality of the surrounding area, establish a strong sense of place, and respond to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change.
23. The Government's National Design Guide 2019 (NDG) is clear that well-designed places contribute to local distinctiveness. This may include introducing built form and appearance that adds new character and difference to places.
24. Policy CP3 of the Core Strategy states that development must be appropriate in terms of its scale, mass, layout, built form, height and character of the area and must be of high-quality design. R9 and NR5 of the Borough Design Guide SPD note that height, bulk and massing should respond to the local context and the prevailing heights in the area.

25. The site is located within the heart of Woodley Town Centre and therefore is surrounded by extensive 20th century buildings with varying roof forms ranging from flat roofs, elongated hips to large crown roofs. The majority of the buildings that line both sides of Crockhamwell Road and Library Parade are at least 3-4 storeys in height. Overall, there is little architectural uniformity to the Town Centre, nor any prevailing vernacular which must be replicated.
26. Library Parade to the front of the site is on the main pedestrian route through to the Woodley commercial centre pedestrian area from Lidl and one of the main town centre car parks. There is also a pedestrian access to Beechwood Primary School to the south of the site meaning it is a prominent location within Woodley centre.
27. In terms of layout, the proposed development is considered to build on and respect the existing layout of surrounding development, providing continuity and enclosure through appropriate relationships between the building and spaces in front of it. At ground and first floor levels, the building frontage and footprint of the existing building would remain unchanged, whilst the new second and third levels have been designed to be set back from the main building line, thus reducing the visual dominance of these extensions. This is the same design approach followed for the Lidl building opposite, where the top floor flats are also stepped back from the building façade.
28. It is also noted that the proposed retail/commercial units to the frontage at ground floor would continue to provide welcome activity to the public realm within the Library Parade, and the proposed development now provides welcome natural surveillance of the adjacent parking areas and pedestrian areas between buildings with the addition of active street frontages given by the addition of windows and balconies on all elevations. The only exception is the third-floor northern elevation (front facing) that has bricked window detailing only (sometimes known as 'tax windows'). This is to overcome overlooking concerns with nearby properties (which will be discussed later in the report). Whilst this level would not be glazed, it would have some architectural detailing as opposed to a blank façade. Owing to its high level, it is not considered to be an overly dominant element of the proposal and at the natural eye level, a good level of glazing and architectural detailing would be provided to ensure the design of the building is appropriate and of a good quality. Following the introduction of bricked windows only on the third floor Library Parade elevation, the Fire Authority raised an observation regarding the design stating that it needs to ensure that the percentage of openings on all sides of the building meets the requirements of Approved Document B for the prevention of fire spread to neighbouring buildings. The applicant confirmed that they consider the proposal complies in this respect. This would be clarified at Building Regulations stage.
29. To the rear, the plans show the proposed rear extension considerably set back from the southern boundary, whilst to the east, the main façade is also stepped back with balconies at first floor. This allows for significant space between the extensions and adjoining buildings to maintain the existing sense of openness, so that the proposal does not appear visually dominant against the street scene and the Woodley Library building itself. In this regard, the proposal is considered to achieve a positive relationship with all surrounding buildings.
30. In terms of scale, the application site occupies a prominent position within the Parade, adjoining varying scales of built form. These consist of large plain 3-4 storey rectangular buildings to the north and west, whilst single storey rectangular buildings

are located to the south-east, including the Woodley Library and Beechwood Primary School. The proposal would see a 4 storey element to north with the addition of two levels over the existing building, whilst stepping down to a three storey extension to the rear which would be about the same height (9.5m) as the ridge of the existing building, and considerably set back from the south and eastern boundaries to alleviate any sense of visual dominance against the single storey buildings on that side.

31. Furthermore, the overall height of the existing building as extended would be circa 12.4m, comparable to the height of the Lidl building at 11.9m. When considering the general scale and proportions of this proposal, the building will be primarily read from Library Parade and the public car park to the east of the site. In responding to this context, the scheme is considered to maintain a respective scale to those buildings surrounding it, visually reducing the mass as seen from the street and approach and so is considered acceptable.
32. Turning to the detailed design of the building, the local area benefits from a contrast between more traditional buildings (Shopping Precinct) and modern styles of the Lidl building. Overall there is a mix of design palette and materials, with little architectural uniformity to the Town Centre. The proposal has deeply recessed balconies, which are considered to add depth to the façade whilst enabling the building to front the public realm. The stacking of windows and balconies at ground, first and second floor level add welcome rhythm and verticality to the facades. The proposal also retains the ground floor retail units which feature large areas of glazing, an element that already adds interest to the public realm and create a visual focus within the Parade. The appearance of the extensions and proposed materials would reflect the style and materials of the existing building and traditionally used within the local area (brickwork), as well as flat roofs which are predominant within the town centre precinct. Notwithstanding, in order to ensure that final features are acceptable, it is considered necessary to impose condition 3 requiring materials to be submitted for approval.
33. Overall, the scheme is viewed as improving the character and appearance of the building in the streetscape and is supported. The proposal is considered acceptable in terms of scale, height, massing and design, without any detriment to visual amenity or local character.

Housing Affordability:

34. Policy CP5 of the Core Strategy, Policy TB05 of the MDD Local Plan and the Affordable Housing SPD specify an affordable housing rate of 20% for any development involving 5-14 dwellings or land with a total area of 0.16 hectares or more on previously developed land. The application site meets this threshold and therefore there is a requirement for the provision of affordable housing.
35. To meet the requirements of Policy CP5 of the Core Strategy, a minimum of 20% of the total number of units (net) should be provided as affordable housing. This equates to 2.8 units here. Due to fact that an on-site contribution would result in a mix of tenure in the flatted block, the only practical means of delivery for the affordable housing is through a commuted sum. The Affordable Housing SPD (2013) supports this notes that schemes with a small number of units (that would be affordable units) may have difficulty providing on site provision. This approach is supported by the Affordable Housing Officer.

36. Based on the Viability Study undertaken by Level Ltd, the Council's approach to calculating commuted sums for affordable housing is based on the difference in the residual development value of a scheme without on-site affordable housing and the same scheme with on-site affordable housing. We have therefore based the calculation of the commuted sum to accord more to that within the Affordable Housing SPD. The commuted sum sought in-lieu of 2.8 units is £166,644.47 index-linked towards affordable housing in the borough. The applicant is agreeable to this contribution. A policy compliance quantum of affordable housing therefore constitutes a significant and tangible public benefit of the proposal and provides a welcome contribution to local affordable housing needs in the borough. The provision and delivery of the affordable housing element of the scheme would be secured through the associated S106 legal agreement.

Accessibility (including The Public Sector Equality Duty (Equality Act 2010))

37. In determining this application, the Council is required to have due regard to its obligations under the Equality Act 2010. The key equalities protected characteristics include age, disability, gender, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion, or belief. Policy CP2 of the Core Strategy also seeks to ensure that new development contributes to the provision of sustainable and inclusive communities, including for aged persons, children and the disabled. 10–20% of all dwellings should be to Lifetime Homes standards in accordance with Policy CP5 of the Core Strategy and Policy TB05 of the MDD Local Plan. In this case, it equates to 1-3 units.
38. Although the Lifetime Homes standards has been replaced by the new National Technical Housing standards, the need to design and build accessible and adaptable accommodation remains integral to future neighbourhood planning.
39. The proposed passenger lift, foyer and hallway circulations are acceptable and 2 accessible car spaces are shown in the revised car park plan which accords with the minimum parking standards. This allows for a level of access within the development.
40. The proposed ground floor plan shows 2 accessible units (units 2 & 3) which is 14% of the development and within the scope of policy CP2. The two disabled car spaces represent 20% of the total parking spaces, which corresponds with the proportion of accessible units and when accounting for some of the units will be car free. They would be located next to the proposed bin store areas at a distance of between 10-14m from the main vehicular entrance which is acceptable from a Highways perspective.
41. A comment has been raised regarding the location of the disabled parking bays and consider that these may be best suited next to the lift, closer to the building for the benefit of particularly wheelchair users. Whilst Officers did raise this consideration with the applicant under this application, given the proposal is deemed acceptable from a highways perspective, the disabled spaces are proposed to remain in their location. It is still considered that these spaces are in a location in which they can be suitably used by those that need them. Furthermore, application number 222367 was not refused on this basis at Planning committee.
42. On the basis of the above, there is no indication or evidence that persons with protected characteristics as identified by the Act have or will have different needs, experiences,

issues, and priorities in relation to this planning application and there would be no significant adverse impacts because of the development.

Amenity Space for Future Occupiers:

Internal Amenity:

43. Policy TB07 of the MDD Local Plan and R17 of the Borough Design Guide SPD require adequate internal space to ensure the layout and size achieves good internal amenity. In accordance with the Technical housing standards – nationally described space standard, a minimum standard of 39-79sqm applies depending upon the number of bedrooms and the occupancy. Additionally, double bedrooms should have a minimum area of 11.5sqm with width of 2.55m-2.75m, single bedrooms should have an area of 7.5sqm and a width of 2.15m, living spaces should have a minimum area of 23-27sqm and there should be provision for internal storage.
44. With the proposal, minimum unit sizes are satisfied in all cases. Bedroom widths and sizes are also compliant and the number of units with deficient combined living space sizes are minimal and where there are shortfalls, the extent is minor (i.e. 20-24sqm instead of 23-27sqm). It is also noted that some of those units with deficient combined living space are those benefiting from external balconies which improves the quality of accommodation. Therefore, in terms of internal unit sizes allowing a functional internal environment, no objection is raised.
45. R18 of the Borough Design Guide SPD requires sufficient sunlight and daylight to new properties, with dwellings afforded a reasonable dual outlook and southern aspect. Section 12 of the NPPF seeks to promote development that has good architecture and layout with a high standard of amenity for existing and future users and Section 14 states that new development should take account of layout, orientation, and massing to minimise energy consumption. In this regard, all units are dual aspect (albeit units 13 and 14 would have south and west facing windows, unlike the other dwellings which have north facing windows). All dwellings have south facing windows to maximise the amount of natural light received. With habitable rooms having access to window openings and some with external balconies, so that the level of natural light and ventilation to the units is considered acceptable.

External Amenity:

46. R16 of the Borough Design Guide SPD stipulates that each unit should have access to some form of amenity space and it should retain and protect privacy, benefit from sunlight where possible and be able to accommodate 2–4 chairs and a small table. 9 apartments would have access to a private balcony of varying size, all capable of accommodating a table and chairs.
47. It is acknowledged that 5 units would not benefit from private amenity space; however, there is generally less expectation to outdoor amenity space within town centre locations, and there are opportunities for recreation and outdoor space in close proximity to the site, with the Woodford Park and facilities circa 200m walk providing high-quality amenity space for the enjoyment of future occupiers. On this basis, it is considered that the scheme affords adequate amenity for occupiers.

Neighbouring Residential Amenities:

Overlooking:

48. R15 of the Borough Design Guide SPD requires the retention of reasonable levels of visual privacy to habitable rooms, with separation of 22m to the rear or 30m on the second floor and 10m to the street or 15m from the second floor. The note on page 47 of the design guide clarifies that schemes in more urban settings or with a more intimate character will often require a tighter, more compact layout.
49. The reason for the refusal of the previous scheme was due to the perceived inadequate separation distance of 11m between the proposed third floor and the Sandford Court (Flats above Lidl). In the Design Guide SPD, it states that generally a separation distance of 15m is required. It is important to note this is recommended guidance but as described above will often not be suitable or required in all circumstances when based on the context of the site.
50. The site is within a densely built-up area with a mixture of large flatted development adjoining it. This is reflective of the site's location directly adjoining a district parade of shops, the large Lidl supermarket and other commercial premises. There is already an existing degree of overlooking from the first-floor office windows, mostly concentrated along the front and rear elevations. The extent of overlooking will undoubtedly increase with its conversion to residential use and the installation of new windows within the proposed second and third floors and addition of balconies to both sides of the building. Nonetheless, this degree of overlooking is not harmful nor considered uncharacteristic for a high-density town centre location.
51. To the north (front) of the building, there is a mixed-use building comprising the Lidl supermarket at ground floor, the Woodley Centre Surgery at first floor and residential flats on the second floor. There would be no negative impact from proposed windows/balconies for the new flats on the first and second levels of the subject development, as these would face the non-residential surgery.
52. With regard to the existing residential flats above the surgery, proposed units 13 and 14 would now be recessed further back at a distance of 15m from these opposite flats. This has been achieved through a reduction of two units from that of the refused scheme, allowing alterations to the proposed layout. This, in combination with the removal of northern facing windows, would further prevent any harmful overlooking between these flats. Whilst the above is considered satisfactory, privacy screens have also been added to the balconies of units 13 and 14 to further prevent any opportunities of overlooking into the balconies of the flats opposite. Condition 23 will ensure that the privacy screens are installed before occupation of the dwellings. Not only does the scheme enjoy a more appropriate relationship with those existing flats opposite, but the scheme now complies with the recommended distance contained within the Borough Design Guide and it is thereby considered to overcome the previous reason for refusal.
53. To the east is the public car park of Headley Road, with the rear gardens of properties facing Ambleside Close at a distance of 46m from the subject building, so that no overlooking impact will occur upon these neighbouring amenities. To the west there are rear windows on first and second floors of properties 130-162 Crockhamwell Road but again these are at a separation of circa 26m from the side elevation of the main body of the subject building and 43m from the side elevation of the rear

extension, which would be well in excess of the Borough Design Guide recommendations.

54. To the south there is a single residential property (the Beechwood Primary School's caretaker dwelling) and beyond this the school premises. Concerns were previously raised by third parties over overlooking impact upon this dwelling and school. With regard to the dwelling, it is noted there is already a degree of overlooking from the existing first floor office windows on the rear elevation. Nonetheless, the nearest window on the southern side elevation of the proposed rear extension would be that of unit 1 serving a bathroom, which can be conditioned to remain obscure glazed. New windows on the second and third floor levels over the main building would be at a distance of approximately 29m from the side elevation of the dwelling, slightly under the minimum 30m minimum required by the Borough Design Guide, however still considered acceptable to maintain adequate levels of privacy upon this neighbouring dwelling.
55. With regard to the school premises, it is noted that rear habitable room windows of the proposed development would be circa 59m away from the school facilities, so that no detrimental impact is expected to occur.
56. Where non habitable spaces can be ameliorated, condition 22 requires obscure glazing.
57. In summary, officers consider that this scheme has now adequately overcomes the reason for refusal for previous application 222367 which was centred around overlooking into residential windows of Sandford Court. This has been achieved by a redesign facilitated by the reduction of two units, introduction of privacy screens, and adherence to the recommended 15m separation distance outlined in the Borough Design Guide.

Loss of light

58. Policy R18 of the Borough Design Guide SPD aims to protect sunlight and daylight to existing properties, with no material impact on levels of daylight in the habitable rooms of adjoining properties. The proposal retains a minimum 12m separation distance from the side elevation of the single residential caretaker's dwelling, and due to its southern location, this neighbouring property would have no detrimental loss of light impact from the proposed development.
59. With regard to the residential flats above the Lidl building, the applicant has submitted a section plan to illustrate that the 25 degree line of sight upon the front windows of these flats would not be infringed by the proposal. The proposal therefore complies with the Borough Design Guide in terms of separation distances and the requirements of Policy R18. In addition, the proposed development would provide all proposed flats with sufficient daylight/sunlight. The proposal is therefore acceptable in this regard as it complies with BRE guidance in terms of daylight and sunlight impacts.

Overbearing

60. Policy R16 of the Borough Design Guide SPD recommends separation distances of 1m to the side boundary, 10-15m front to front and 12-15m back to flank. The proposal would maintain acceptable separation distances from neighbouring properties to the sides. To the front, a minimum 11m front-to-front separation distance is achieved and it is noted the proposed second and third floor levels over the existing building are set back from the main building line to alleviate any sense of enclosure, and given the overall proposed building height is comparable with the height of the Lidl building, there are no concerns with overbearing impact upon the residential flats above the Lidl building.
61. Likewise, the proposal sees a minimum 12m separation distance from the side elevation of the single residential caretaker's dwelling, so that no overbearing impact is expected to occur upon this neighbouring amenities.

Noise disturbance (to surrounding residents):

62. Policy CC06 and Appendix 1 of the MDD Local Plan require that development protect noise sensitive receptors from noise impact. The existing retail units at ground floor are to remain unchanged as part of the proposal. The density of the residential element of the development and the location and size of the balconies is appropriate for the town centre location specially against the background noise level of the town centre. As such, there are no adverse noise concerns for existing residents within the surrounding properties.

Wind

63. The "wind tunnel" effect refer to by third parties is commonly associated to tall buildings in a city (over 20 storeys) that are in close proximity to one another. This creates a low pressure region, causing winds at ground level to move faster. In the case of this application, the existing relationship and separation distance between the subject building and the Lidl building opposite remains unchanged. Moreover, the Lidl building is 3 storey and the proposed development will result in a 4 storey building, which are not considered tall enough buildings to create a wind tunnel effect nor an adverse impact over and above the existing situation.

Highways Access and Parking Provision

Car parking:

64. Policy CC07 and Appendix 2 of the MDD Local Plan stipulates minimum off street car parking standards, including provision for charging facilities. The existing carpark area at the rear comprises circa 18 car spaces and is used on an informal basis. The existing uses (retail and office) generate a requirement for 45 spaces. With 18 spaces, this is a departure of at least 27 spaces at present.
65. The subject application proposes to redevelop the existing car park area, with a total of 10 car spaces, additional pedestrian access, cycle parking, 2 disabled car spaces and 6 electric vehicle charging points. The unit mix of 5 x 2-bed and 9 x 1-bed flats represents a parking generation rate of 19 spaces between allocated/unallocated. When assuming an unchanged retail allocation of 5 spaces, the provision of 10 spaces represents a departure of up to 14 spaces.

66. The 2 accessible units (1-bed) would have an allocated parking space, and 3 of the proposed 2-bed flats, whereas the remainder 9 units (2 x 1 bed and 7 x 2 bed) would be car free. The remaining 5 no car spaces would be allocated for the existing ground floor retail units. Whilst there is a departure with the required standards and up to nine of the units will be car free, this is not an unreasonable outcome, particularly noting this is a town centre location where there is a high level of sustainability and less car dependence, with easy access to town centre facilities and public transport.
67. It is also noted that the 13 apartments on the top floor of the Lidl building were permitted as 'car free' under reference F/2009/0097, so as nine units at 43-47 Peach Street in Wokingham town (ref. 214184), which demonstrates this is not an unreasonable outcome within town centre locations. There is also an expected reduction in parking demand because of the change of use of the building from offices to residential. In addition, the development would be well supplemented by other modes of parking including compliant provision of cycle parking and disabled parking, which is supported. Visitor parking can be adequately accommodated within surrounding public car parks. The WBC Highways Officer is supportive of the scheme based on the above assessment and has raised no objections to the proposal or parking provision.
68. A car parking management plan will be secured via condition 17 which will detail how spaces will be managed and monitored. Finally, it should be noted that previous application 222367 was not refused on highway or parking grounds.

Other parking:

69. Policy CC07 and Appendix 2 of the MDD Local Plan stipulates a minimum of 17 cycle spaces for the new residential units, an increase in 1 space from the previous submission. P2 and P3 of the Borough Design Guide SPD ensure that it is conveniently located, secure and undercover and provided where it is compatible in the street scene.
70. The redevelopment of the carpark would result in 17 cycle spaces for the residents which would be in line with the above requirement. The cycle storage would be at the rear of the site and conveniently located via the rear exit and with secured access gate. In addition, a further vertical rack is provided for visitors and 4 vertical racks are also shown for users of the retail units to be located on the rear wall of these units. This is considered acceptable and further details relating to design and security measures will be secured by condition 15.
71. All the residential and retail spaces will be provided with electric vehicle charging points, in accordance with Appendix E of the Highway Design Guide. However it is unclear if these are active or passive points. Further details of the EV strategy can be secured via condition 9.
72. Disabled parking is provided in the form of two car spaces next to the proposed bin stores, which correlates with the provision of 2 accessible residential units.
73. Day to day deliveries for the flats will be from the street which is accepted by the WBC Highways Officer. As for the retained ground floor retail units, service access for deliveries will remain as existing via the service yard and through the rear doors.

Access and manoeuvring:

74. Due to the limited space on site and the need to have a safe manoeuvring area, the parking spaces have been shown to be at 2.4m x 4.8m, which is below the 5m x 2.5m standards, however WBC Highways Officer is content to accept the proposed dimensions.
75. Access to the car park is via the existing service yard off Library Parade, which is unchanged. Refuse collection will be kerbside from the existing service yard and turning circles within the site will not be required. The new rear access width would be over 4m which would allow access for a fire engine through the gate. There is a requirement for a fire engine to get within 45m of any point of the building and this can be achieved with the proposal. New pedestrian access is also created and is welcomed by the Highways Officer.

Traffic generation:

76. A Transport Statement has been submitted in support of the application, detailing the accessibility of the site and plans for parking. The Library Parade site is sustainably located within Woodley Town/Retail centre, close to a range of facilities and to public transport links. The WBC Highways Officer is satisfied with the information provided and advises that traffic from this development would not have an adverse impact on the highway network. Moreover, with a reduction in the number of car parking spaces and its town centre location, it is expected to be a significant reduction in traffic generation from the proposed residential use compared to the existing office use.

Construction Management:

77. Because of the town centre location, limitations within the rear of the site and road network within residential areas, a construction method statement is a pre-commencement requirement at condition 7.

Flooding and Drainage:

78. The site and access thereto is in Flood Zone 1 and at low risk from surface water flooding according to the Environment Agency mapping. There will be no increase in impermeable areas since the proposed extensions to the existing building will be over existing hardstanding.
79. A Drainage Statement (Glanville Consultants, dated 14/09/2022) has been submitted in support of the application.
80. The outflow rate from the proposed drainage system will be restricted to 5.5l/s for the total impermeable area of the site for all return periods up to the 100-year design rainfall event with an additional 40% allowance for the future effects of climate change. As a result of the development, flood risk will reduce, not increase, both on-site and elsewhere. It also proposes maintenance of the SuDS features by a management company, in accordance with Table 3 of the drainage statement document.
81. The drainage scheme will be secured via condition 20.

Landscape and Trees:

82. Policy CC03 of the MDD seeks to protect existing trees and promote opportunities for new soft landscaping.
83. Given its location within the Woodley Town Centre and existing site conditions which currently consists of hardstanding or existing building structure, there is no existing landscaping nor trees within the site, so that there are no tree or landscape objections. Landscaping details and boundary treatment details for the external spaces will be required to be submitted through conditions 5 and 11 and in accordance with R14 of the Borough Design Guide SPD, which requires well-designed hard and soft landscaping that complements housing.

Ecology:

84. Policy TB23 of the MDD states that development should protect existing wildlife and biodiversity.
85. The site is not located in a bat roosting potential zone, or Great Crested Newt zone. No objections have been raised by Ecology officers and therefore the proposal would not be considered to adversely affect these protected species.

Environmental Health:

Contaminated Land:

86. The site may have potential contamination issues and the WBC Environmental Health Officer has recommended that condition 6 be added in order to secure a scheme of potential contamination mitigation prior to commencement of development.

Noise:

87. Policy CC06 and Appendix 1 of the MDD Local Plan requires that development protect noise sensitive receptors from noise impact. Due to its town centre location, there are potential noise sources including the commercial units on the ground floor, the Lidl supermarket opposite the building, as well as from movement in the nearby car parks. Whilst impacts are to be expected in a dense location such as this, the WBC Environmental Health Officer has indicated that a noise impact assessment is carried out as a pre-commencement condition 12, covering the current acoustic environment and how predicted external noise will affect noise sensitive receptors including future occupiers of the flats, and any noise mitigation measures necessary to protect noise sensitive receptors.
88. Whilst it is a matter ordinarily left to buildings regulations, the reuse of part of the existing fabric of the building poses the potential for noise transmission, particularly to and from the ground floor retail units. As such, the WBC Environmental Health Officer has indicated that condition 13 is required to secure details of noise insulation for the new dwellings, to ensure that internal noise levels do not exceed 35 dB LAeq during the daytime and 30 dB LAeq during the night. 80. The proposed layout would require a significant amount of mechanical ventilation to bathrooms, however a riser has been provided such that concern is not raised.

89. In order to ensure that the existing residential amenities of nearby occupiers are protected during demolition and construction, condition 21 relates to permitted hours of work during construction, and condition 7 requires the submission of a construction method statement.

Odour:

90. The site is in the vicinity of several food premises including a café on the ground floor of the building, and there is a potential for cooking odour to have a negative impact on amenity of future occupiers of the flats. Therefore, an odour assessment implementing best practice for protecting future occupants will be required as part of condition 14.

Lighting:

91. The layout of the site means that any external lighting would be largely contained within the rear car park area. Condition 8 is however recommended to ensure that any proposed external lighting does not harmfully impact the amenity of surrounding residents.

Waste Storage:

92. Policy CC04 of the MDD Local Plan requires adequate internal and external storage for the segregation of waste and recycling as well as provision for green waste and composting and an appropriate area for ease of collection. The drawings show bin storage to be located within the existing rear car parking area. The 3 x 1100L bin store is for the retail units. It has a combined floor area of 30sqm also containing 6 x 360L bins and 11 x 240 L bins, which is considered sufficient for the waste generation of 14 units as well as the retail units. It has direct access from the existing service yard allowing for ease of storage for residents/occupiers of the retail units and for collection. On this basis, no objection is raised.

Building Sustainability:

93. Policy CC04 of the MDD Local Plan and the Sustainable Design and Construction SPD require sustainable design and conservation and R21 of the Borough Design Guide SPD requires that new development contribute to environmental sustainability and the mitigation of climate change. Policy CC05 of the MDD Local Plan encourages renewable energy and decentralised energy networks, with encouragement of decentralised energy systems and a minimum 10% reduction in carbon emissions for developments of 10+ dwellings or in excess of 1000m². This would be secured via condition 10. The applicant's energy consultants have advised that the development could achieve CO₂ savings of approx. 65% over the Building Regulations, Part L (2021) baseline and which would exceed the Council's policy requirement.
94. It should also be noted that the scheme promotes sustainable development through the provision of electric vehicle charging points and bicycle storage, and is in a highly sustainable location, where walking and use of public transport are good alternatives to the private car.

Employment Skills Plan:

95. Policy TB12 of the MDD Local Plan requires an employment skills plan (ESP) for this development. ESP uses the Construction Industry Training Board (CITB) benchmark based on the value of construction. This is calculated by multiplying the total floor space by £1,025, which is the cost of construction per square metre as set out by Building Cost Information Service of RICS and the methodology as set out in the Council's Employment and Skills Guidance. In this case, it totals £1,380,675. The ESP would require a total of three community skills support jobs and the creation of one job. If for any reason the applicant is unable to deliver the plan or elects to pay the contribution, the employment outcomes of the plan will be borne by the Council at a contribution of £3,750. The requirements of the ESP will form part of the S106 legal agreement.

Community Infrastructure Levy:

96. The application is liable for CIL payments because it involves 14 new residential units on site. It is payable at £500.29/m² index linked.

CONCLUSION:

97. The principle of development is acceptable because the application site is within a major development location where the proposal for new residential dwellings is supported by policy, despite the relevant local plan policies being afforded limited weight. Whilst there is a loss of office floor space in the town centre, this continues to be outweighed by the provision of residential dwellings.
98. The location of the development is considered to be highly sustainable and would allow easy and safe access to facilities and services. The design, mass and scale of the building and the layout of the development is considered appropriate for the proposed use and its location within the Woodley Town Centre. The proposal involves a satisfactory outcome on traffic and parking grounds because of its town centre location. These matters were also deemed acceptable under previous application ref. 222367.
99. In the context of a town centre location, there is also adequate resident and neighbour amenity, and is considered to overcome the reason for refusal of the previous application (ref. 222367), relating to overlooking, by providing a policy compliant separation distance of 15m between the proposed development and dwellings at Sandford Court and additional privacy screening on balconies.
100. The Council is unable to demonstrate a five-year supply of deliverable housing sites. Paragraph 11 of the Framework states that where the development plan is out of date, permission should be granted unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole, or there are specific policies in the Framework which indicate that development should be restricted. In this regard the tilted balance is engaged.
101. Overall, it is not considered any adverse impacts would significantly and demonstrably outweigh those identified benefits of the scheme when assessed against the policies in the Framework when taken as a whole.
102. Paragraph 120 (c) of the NPPF (2021) also gives substantial weight to the development of suitable brownfield land within settlements for homes, which is the

case with this application. The NPPF also focuses on development being socially, economically and environmentally sustainable.

Economically the proposed development would encourage development and associated economic growth through the construction works. The inhabitants of the 14 dwellings would also contribute to the local economy.

Regarding the **social role** the development would perform, the provision of 14 dwellings towards the Council's housing land supply position. A financial contribution towards Affordable Housing is also provided.

Regarding the **environmental role**, the proposal would see residential development in a highly sustainable location which has access to various modes of transport. The development would provide enhanced sustainability measures compared to the site as existing, namely through cycle storage, electric vehicle charging points and a minimum of 10% reduction in carbon emissions will be achieved.

103. Officers are therefore recommending the application for approval, subject to the conditions listed and a S106 legal agreement to secure a financial contribution towards affordable housing and the employment skills plan.

The Public Sector Equality Duty (Equality Act 2010)

In determining this application the Council is required to have due regard to its obligations under the Equality Act 2010. The key equalities protected characteristics include age, disability, gender, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief. There is no indication or evidence (including from consultation on the application) that the protected groups identified by the Act have or will have different needs, experiences, issues and priorities in relation to this particular planning application and there would be no significant adverse impacts upon protected groups as a result of the development.

APPENDIX 1 - Conditions / informatives

APPROVAL subject to the following:

Prior completion of a legal agreement pursuant to section 106 of the Town and Country Planning Act 1990 (as amended) to secure:

- Provision of financial contribution towards affordable housing
- Employment Skills Plan

Conditions and Informatives:

1. **Timescale** – The development hereby permitted shall be begun before the expiration of three years from the date of this permission.
Reason: In pursuance of s.91 of the Town and Country Planning Act 1990 (as amended by s.51 of the Planning and Compulsory Purchase Act 2004).
2. **Approved details** – This permission is in respect of the submitted application plans and drawings:

PL08 Rev E – Proposed Third Floor Plan
PL10 Rev F – Proposed Library Parade and East Elevations
PL11 Rev E - Proposed South and West Elevations
PL12 Rev D – Proposed Section

Received 10th May 2023

PL01 – Location Plan
PL02 Rev B – Block Plan – Proposed Scheme
PL09 Rev B – Proposed Roof Plan
PL05 Rev C – Proposed Ground Floor Plan
PL06 Rev B – Proposed First Floor Plan
PL07 Rev C – Proposed Second Floor Plan

Received 27th March 2023

The development shall be carried out in accordance with the approved details unless other minor variations are agreed in writing after the date of this permission and before implementation with the Local Planning Authority.

Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the application form and associated details hereby approved.

3. **External Materials** – Before the development hereby permitted is commenced, details of the materials to be used in the construction of the external surfaces of the building shall have first been submitted to and approved in writing by the local planning authority. Development shall not be carried out other than in accordance with the so-approved details.
Reason: To ensure that the external appearance of the building is satisfactory.
Relevant policy: Core Strategy policies CP1 and CP3.

4. **Ground and building levels** – No development shall take place until a measured survey of the site and a plan prepared to scale of not less than 1:500 showing details of existing and proposed finished ground levels (in relation to a fixed datum point) and finished roof levels shall be submitted to and approved in writing by the local planning authority, and the approved scheme shall be fully implemented prior to the occupation of the building(s).

Reason: In order to ensure a satisfactory form of development relative to surrounding buildings and landscape. Relevant policy: Core Strategy policies CP1 and CP3 and Managing Development Delivery Local Plan policy TB21.

5. **Landscaping** – Prior to the commencement of the development, details of hard and soft landscape proposals shall be submitted to and approved in writing by the local planning authority. These details shall include, as appropriate, means of enclosure, car parking layouts, other vehicle and pedestrian access and circulation areas, hard surfacing materials and minor artefacts and structure, signs, lighting and external services, etc. Soft landscaping details shall include a planting plan, specification (including cultivation and other operations associated with plant and grass establishment), schedules of plants, noting species, planting sizes and proposed numbers/densities where appropriate, and implementation timetable. It shall include planting within the car park. All hard and soft landscape works shall be carried out in accordance with the approved details prior to the occupation of any part of the development or in accordance with a timetable approved in writing by the local planning authority. Any trees or plants which, within a period of five years after planting, are removed, die or become seriously damaged or defective, shall be replaced in the next planting season with others of species, size and number as originally approved and permanently retained.

Reason: In the interests of visual amenity. Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

6. **Contamination** – No development shall take place until a scheme to identify and deal with contamination of the site has been submitted to and approved in writing by the local planning authority. The scheme shall include an investigation and assessment to identify the extent of contamination and the measures to be taken to avoid risk when the site is developed. Development shall not commence until the measures approved in the scheme have been implemented.

Reason: To ensure that any contamination of the site is identified at the outset to allow remediation to protect existing/proposed occupants of property on the site and/or adjacent land. Relevant policy: NPPF Section 15 (Conserving and Enhancing the Natural Environment) and Core Strategy policies CP1 & CP3.

7. **Construction Management** – No development shall take place, including any works of demolition, until a Construction Method Statement and Management Plan has been submitted to, and approved in writing by, the local planning authority. The approved Statement shall be adhered to throughout the construction period. The Statement shall provide for:

- i. the parking of vehicles of site operatives and visitors,
- ii. loading and unloading of plant and materials,
- iii. storage of plant and materials used in constructing the development,
- iv. the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate,
- v. wheel washing facilities,

- vi. measures to control the emission of dust and dirt during construction,
- vii. a scheme for recycling/disposing of waste resulting from demolition and construction works
- viii. no deliveries outside the permitted working hours
- ix. Best practice for use of machinery on site e.g. no idling of engines when equipment not in use etc
- x. lorry routing

Reason: In the interests of highway safety & convenience and neighbour amenities. Relevant policy: Core Strategy policies CP3 & CP6.

8. **Lighting** – Prior to commencement of development, details of floodlighting and other externally mounted lighting of the site shall be submitted to and approved in writing by the local planning authority. The floodlighting shall be installed, maintained and operated in accordance with the approved details unless the local planning authority gives its written consent to the variation.

Reason: To protect neighbouring residential amenities.

9. **Electric Vehicle Charging** – Prior to the commencement of the development, an Electric Vehicle Charging Strategy serving the development shall be submitted for approval in writing by the Local Planning Authority. This strategy should include details relating to on-site infrastructure, installation of charging points and future proofing of the site. The approved details are to be implemented prior to the first occupation of the flats and maintained for the life of the development, unless otherwise agreed with the local planning authority.

Reason: In order to ensure that secure electric vehicle charging facilities are provided so as to encourage the use of sustainable modes of travel. Relevant policy Core Strategy policies CP1, CP3 & CP6.

10. **Energy Statement** – Prior to the commencement of development, an Energy Statement indicating that an absolute minimum of the 10% of the predicted energy requirement of the development will be obtained from decentralised renewable and/or low carbon sources (as defined in the glossary of Planning Policy Statement: Planning and Climate Change (December 2007) or any subsequent version) shall be submitted to and approved in writing by the local planning authority. The Statement shall also investigate the viability of providing electric vehicle charging points at construction. The approved scheme shall be implemented before the flats are first occupied and shall remain operational for the lifetime of the development.

Reason: To ensure developments contribute to sustainable development. Relevant policy: NPPF Section 14, Core Strategy policy CP1, Managing Development Delivery Local Plan policy CC05 & the Sustainable Design and Construction Supplementary Planning Document.

11. **Details of boundary walls and fences** – No development shall commence until details of all boundary treatment(s) shall first be submitted to and approved in writing by the local planning authority. The approved scheme shall be implemented prior to the first occupation of the development or phased as agreed in writing by the local planning authority. The scheme shall be maintained in the approved form for so long as the development remains on the site.

Reason: In the interests of amenity and highway safety. Relevant policy: Core Strategy policies CP1, CP3 and CP6.

12. **Noise** – No development shall take place until a full Noise Impact Assessment to BS 4142 2014 has been submitted to and approved in writing by the local planning authority. The assessment shall cover the current acoustic environment and how predicted noise from the development, including all proposed plant and machinery and vehicle delivery options will affect nearby noise sensitive receptors, including the occupiers of the proposed development and any mitigation measures necessary. Development shall not commence until the measures approved in the report have been implemented.
Reason: In the interests of residential amenities. Relevant policy: NPPF Section 15 (Conserving and Enhancing the Natural Environment), Core Strategy policies CP1 and CP3 and Managing Development Delivery Local Plan policy CC06.
13. **Noise Insulation** - The residential flats shall be designed and/or insulated so as to provide attenuation against externally generated noise in accordance with a mitigation scheme to be submitted to and approved in writing by the Local Planning Authority before commencement of development. The scheme shall ensure that all noise implications are mitigated so that internal ambient noise levels for dwellings shall not exceed 35 dB LAeq (16 hour) 07:00-23:00 during the daytime and 30 dB LAeq (8 hour) 23:00-07:00 during the night assuming full road traffic flows at the outset. The design and/or insulation measures identified in the scheme shall ensure that ambient internal noise levels and the noise levels within external spaces for the dwellings meet the BS8233/1999.
Reason: In the interests of residential amenities. Relevant policy: NPPF Section 15 (Conserving and Enhancing the Natural Environment), Core Strategy policies CP1 and CP3 and Managing Development Delivery Local Plan policy CC06.
14. **Odour** – No development shall take place until a scheme implementing best practice for protecting future occupiers of the residential flats from commercial odour, including all plant and machinery in connection with any commercial kitchen/extraction/ventilation/flues, shall be submitted to and approved in writing by the local planning authority. The mitigation measures shall be retained and maintained thereafter.
Reason: In the interests of residential amenities.
15. **Cycle parking** – Prior to the commencement of the development, full and final details of secure and covered bicycle storage facilities for the occupants and visitors shall be submitted to and approved in writing by the local planning authority. The cycle storage and parking shall be implemented in accordance with the approved details before occupation of the development hereby permitted and shall be permanently retained in the approved form for the parking of bicycles and used for no other purpose.
Reason: To ensure that secure weather-proof bicycle parking facilities are provided so as to encourage the use of sustainable modes of travel. Relevant policy: NPPF Section 9 and Core Strategy policies CP1, CP3 & CP6 and Managing Development Delivery Local Plan policy CC07.
16. **Parking and turning** – No unit shall be occupied until the vehicle parking and turning space has been provided in accordance with the approved plans. The vehicle parking and turning space shall be retained and maintained in accordance with the approved details and the parking space shall remain available for the

parking of vehicles at all times and the turning space shall not be used for any other purpose other than vehicle turning.

Reason: To provide adequate off-street vehicle parking and turning space and to allow vehicles to enter and leave the site in a forward gear in the interests of road safety and convenience and providing a functional, accessible and safe development and in the interests of amenity. Relevant policy: Core Strategy policies CP3 & CP6 and Managing Development Delivery Local Plan policy CC07.

- 17. Parking Management Plan** – Prior to the first occupation of the flats, a Parking Management Strategy for the management of the parking arrangements shall be submitted to and approved in writing by the local planning authority. The submitted Parking Management Strategy shall include details of the management of all parking spaces and the monitoring and the delivery of additional electric vehicle charging spaces when required.

Reason: To ensure adequate on-site parking provision in the interests of highway and pedestrian safety, convenience and amenity. Relevant policy: Core Strategy policies CP3 and CP6 and Managing Development Delivery Local Plan policy CC07.

- 18. Access surfacing** – No residential unit shall be occupied until the vehicular access has been surfaced with a permeable and bonded material across the entire width of the access for a distance of 10 metres measured from the carriageway edge.
Reason: To avoid spillage of loose material onto the highway, in the interests of road safety. Relevant policy: Core Strategy policy CP6.

- 19. Bin store** – No residential unit shall be occupied until the bin storage areas for the building have been provided in full accordance with the approved details. The bin storage shall be permanently so retained and used for no purpose other than the temporary storage of refuse and recyclable materials. Reason: Reason: In the interests of visual and neighbouring amenities and functional development. Relevant policy: Core Strategy CP3 and Managing Development Delivery Local Plan policy CC04.

- 20. Drainage** – The development hereby approved shall be carried out in accordance with the details identified in the Drainage Statement (Glanville Consultants, dated 14/09/2022) received by the local planning authority on 28/03/2023.
Reason: To ensure satisfactory drainage of the site and to prevent increased risk of flooding. Relevant policy: NPPF Section 14 (Meeting the Challenge of Climate Change, Flooding and Coastal Change), Technical Guidance on the NPPF (Flood Risk), Core Strategy policy CP1 and Managing Development Delivery Local Plan policy CC09.

- 21. Hours of work and deliveries** – No work relating to the development hereby approved, including preparation prior to building operations, shall take place other than between the hours of 8am and 6pm Monday to Friday and 8am and 1pm Saturdays and at no time on Sundays or Bank or National Holidays.

No deliveries relating to the development hereby permitted shall be taken in or dispatched from the site other than between the hours of 8am and 6pm Monday to Friday and 8am and 1pm Saturdays and at no time on Sundays or Bank or National Holidays.

Reason: To protect the occupiers of neighbouring properties from noise and disturbance outside the permitted hours during the construction period. Relevant policy: Core Strategy policies CP1 and CP3 and Managing Development Delivery Local Plan policy CC06.

22. **Obscure glazing** – The bathroom window of unit 1 on the south elevation shall be fitted with obscured glass and shall be permanently so-retained. The window shall be non-opening unless the parts of the window which can be opened are more than 1.7 metres above the finished floor level of the room in which the window is installed and shall be permanently so retained.

Reason: To safeguard the residential amenities of neighbouring properties. Relevant policy: Core Strategy policy CP3.

23. **Installation of privacy screens to balconies** – Prior to occupation of units 13 and 14, the privacy screens on the external balconies, as shown on the approved plans, will be installed maintained for the lifetime of the development.

Reason: To safeguard the residential amenities of neighbouring properties. Relevant policy: Core Strategy policy CP3.

Informatives:

1. This permission should be read in conjunction with the legal agreement under section 106 of the Town and Country Planning Act, the obligations in which relate to this development.
2. The applicant is reminded that this approval is granted subject to conditions which must be complied with prior to the development starting on site. Commencement of the development without complying with the pre-commencement requirements may be outside the terms of this permission and liable to enforcement action. The information required should be formally submitted to the Council for consideration with the relevant fee. Once the details have been approved in writing the development should be carried out only in accordance with those details.
3. The applicant is reminded that should there be any change from the approved drawings during the build of the development this may require a fresh planning application if the changes differ materially from the approved details. Non-material changes may be formalised by way of an application under s.96A Town and Country Planning Act 1990.
4. Adequate precautions shall be taken during the construction period to prevent the deposit of mud and similar debris on adjacent highways. For further information contact the Highway Authority on tel.: 0118 9746000.
5. Any works/ events carried out by or on behalf of the developer affecting either a public highway or a prospectively maintainable highway (as defined under s.87 New Roads and Street Works Act 1991 (NRSWA)), shall be co-ordinated and licensed as required under NRSWA and the Traffic Management Act 2004 in order to minimise disruption to both pedestrian and vehicular users of the highway. Any such works or events, and particularly those involving the connection of any utility to the site must be coordinated by the developer in liaison with the Borough's Street Works team (0118 974 6302). This must take place at least three months in advance of the intended works to ensure effective co-ordination with other works so as to minimise disruption.

6. Whilst it would appear from the application that the proposed development is to be entirely within the curtilage of the application site, the granting of planning permission does not authorise you to gain access or carry out any works on, over or under your neighbour's land or property without first obtaining their consent, and does not obviate the need for compliance with the requirements of the Party Wall etc. Act 1996.
7. The development hereby permitted is liable to pay the Community Infrastructure Levy. The Liability Notice issued by Wokingham Borough Council will state the current chargeable amount. A revised Liability Notice will be issued if this amount changes. Anyone can formally assume liability to pay, but if no one does so then liability will rest with the landowner. There are certain legal requirements that must be complied with. For instance, whoever will pay the levy must submit an Assumption of Liability form and a Commencement Notice to Wokingham Borough Council prior to commencement of development, failure to do this will result in penalty surcharges being added. For more information see the Council's website - Community Infrastructure Levy advice page. Please submit all CIL forms and enquiries to developer.contributions@wokingham.gov.uk.
8. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received and subsequently determining to grant planning permission in accordance with the presumption in favour of sustainable development.

APPENDIX 2 - Parish Council Comments

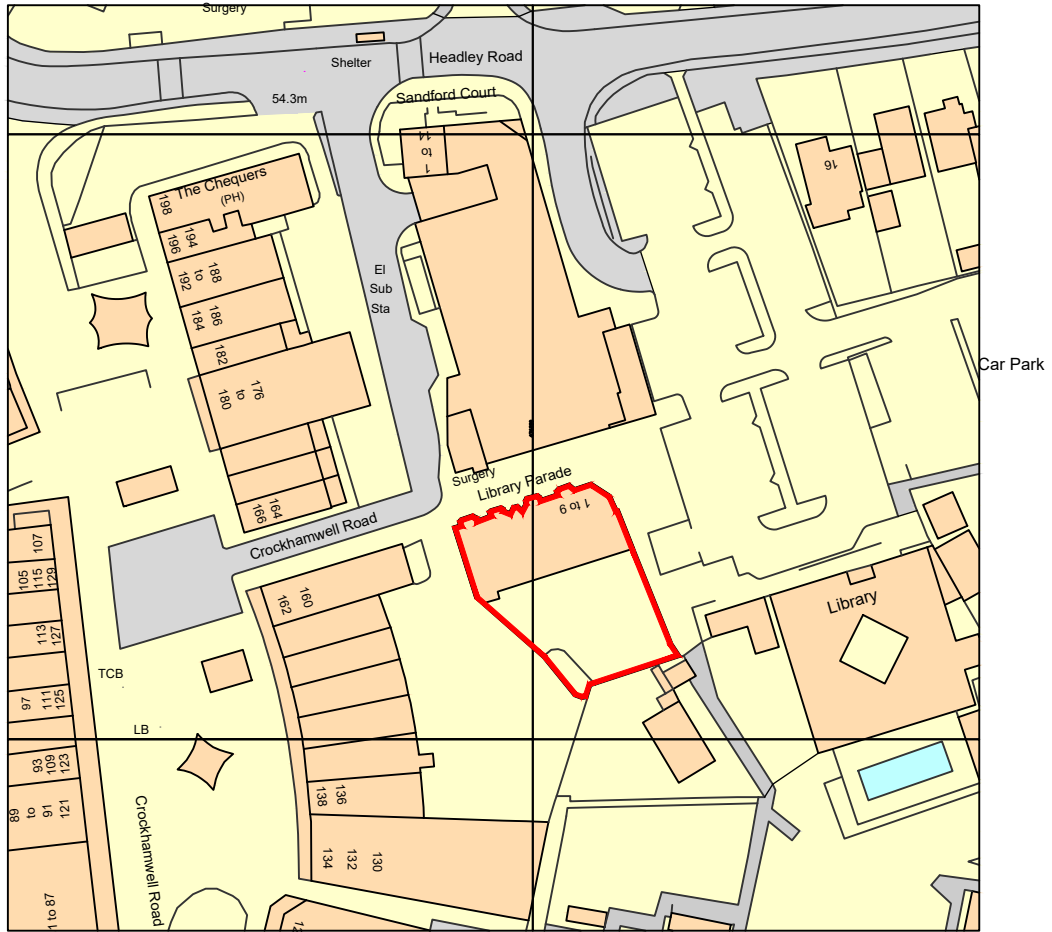
PLANNING REF : 230743
PROPERTY ADDRESS : The Oakwood Centre
: Headley Road, Woodley, Wokingham
: RG5 4JZ
SUBMITTED BY : Woodley Town Council
DATE SUBMITTED : 26/04/2023

COMMENTS:

Members of the Planning & Community Committee have considered this amended application and, once again, have objections to the proposals. Their objections were as follows:

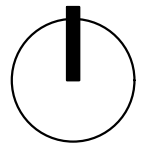
- The current design would lead to overlooking onto Beechwood Primary School;
- The proposal removes existing parking provision for occupants of the retail units; Members recommend that allocated parking be introduced for retail unit staff
- Concern was raised about the design creating an unwelcome 'wind tunnel' effect between the development and neighbouring buildings

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location plan



Scale 1:1250 @ A4



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project	drawing title	scale	date	drawn by	checked by
Library Parade, Crockhamwell Road Woodley RG5 3LX	Location Plan	1:1250@A4	08.04.2022	cbf	
client	drawing status	job no.	drawing no.	revision	
Hanslink Ltd	PLANNING 393	H16	PL01	—	

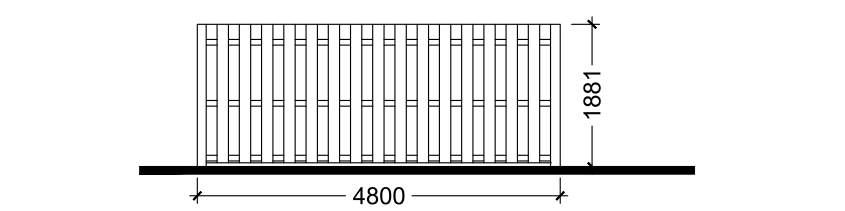
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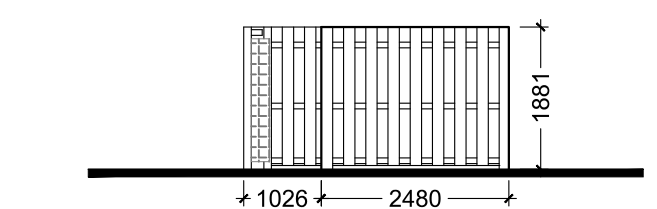
proposed south elevation



north elevation



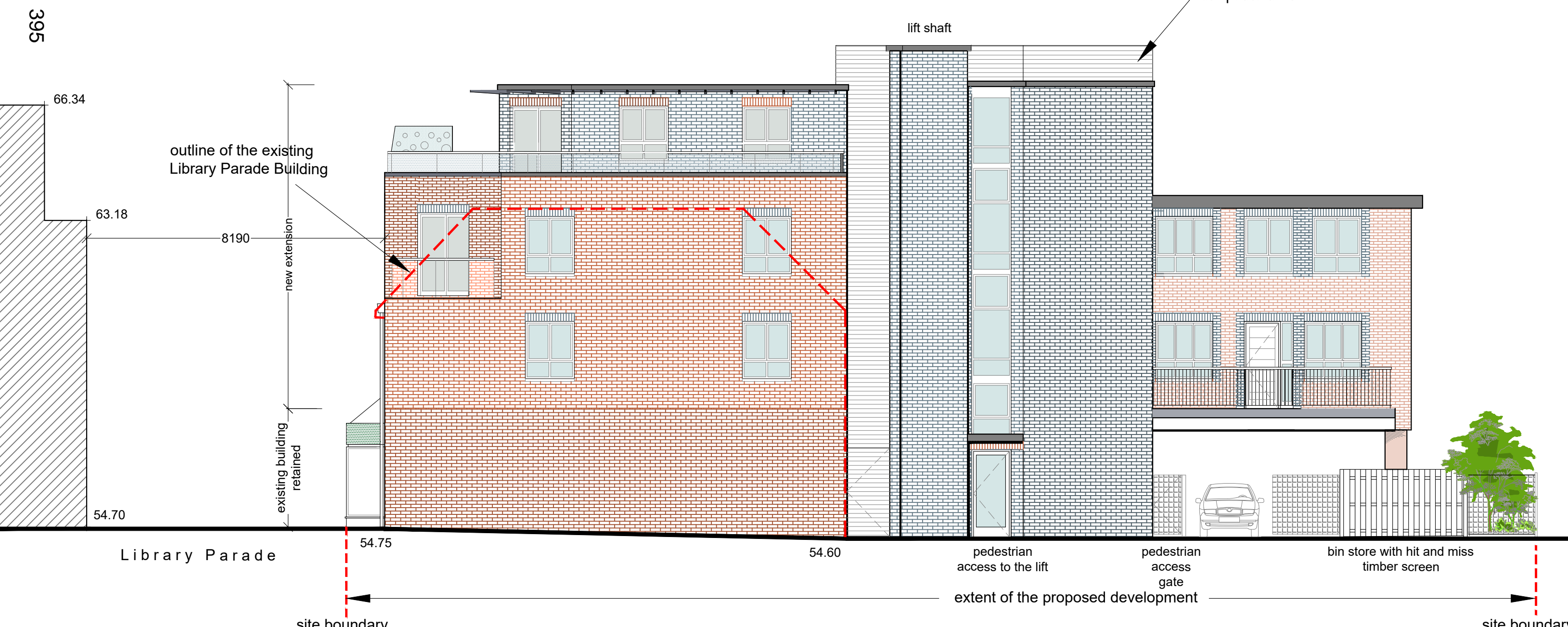
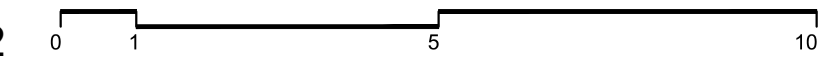
east - car park elevation



south elevation

- BIN STORE -
FENCE AND GATE
- 100 x 100mm precast concrete posts with concrete foundations
 - 150 x 25mm hit and miss vertical fencing from treated softwood boarding. The boards may overlap to give an equal spacing.
 - 75 x 50mm horizontal rails - 3no. req. to each panel

Scale 1:100 @ A2



proposed west elevation

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RevE	Privacy screen added	10/05/23
RevD	3rd floor layout amended	15/03/23
RevC	Length of rear extension reduced	20/01/23
RevB	Escape stair, 2nd floor wall on south elevation amended to blue brick	05/09/22
RevA	Proposed door shown at rear of Unit 1/2	12/08/2022
	Bin store elevations added	

project
Library Parade , Crockhamwell Road
Woodley RG5 3LX

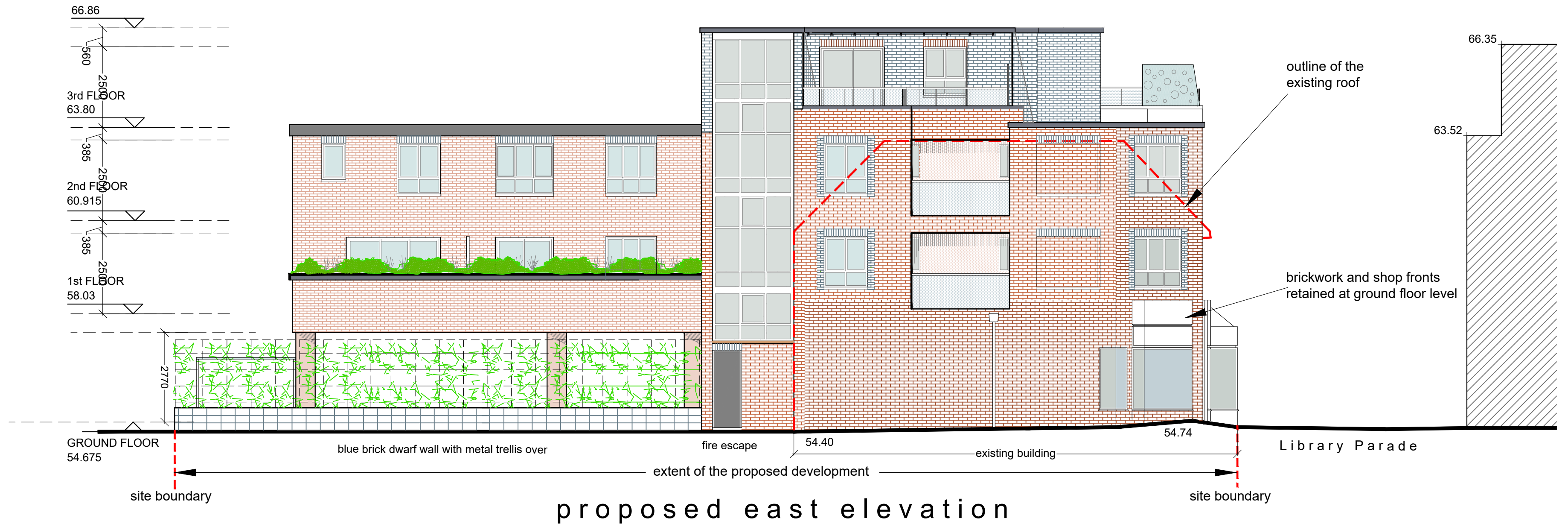
client
Hanslink Ltd

drawing title
Proposed South and West Elevations

drawing status
PLANNING

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job no.	drawing no.	revision	
H16	PL11	E	

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397



Scale 1:100 @ A2

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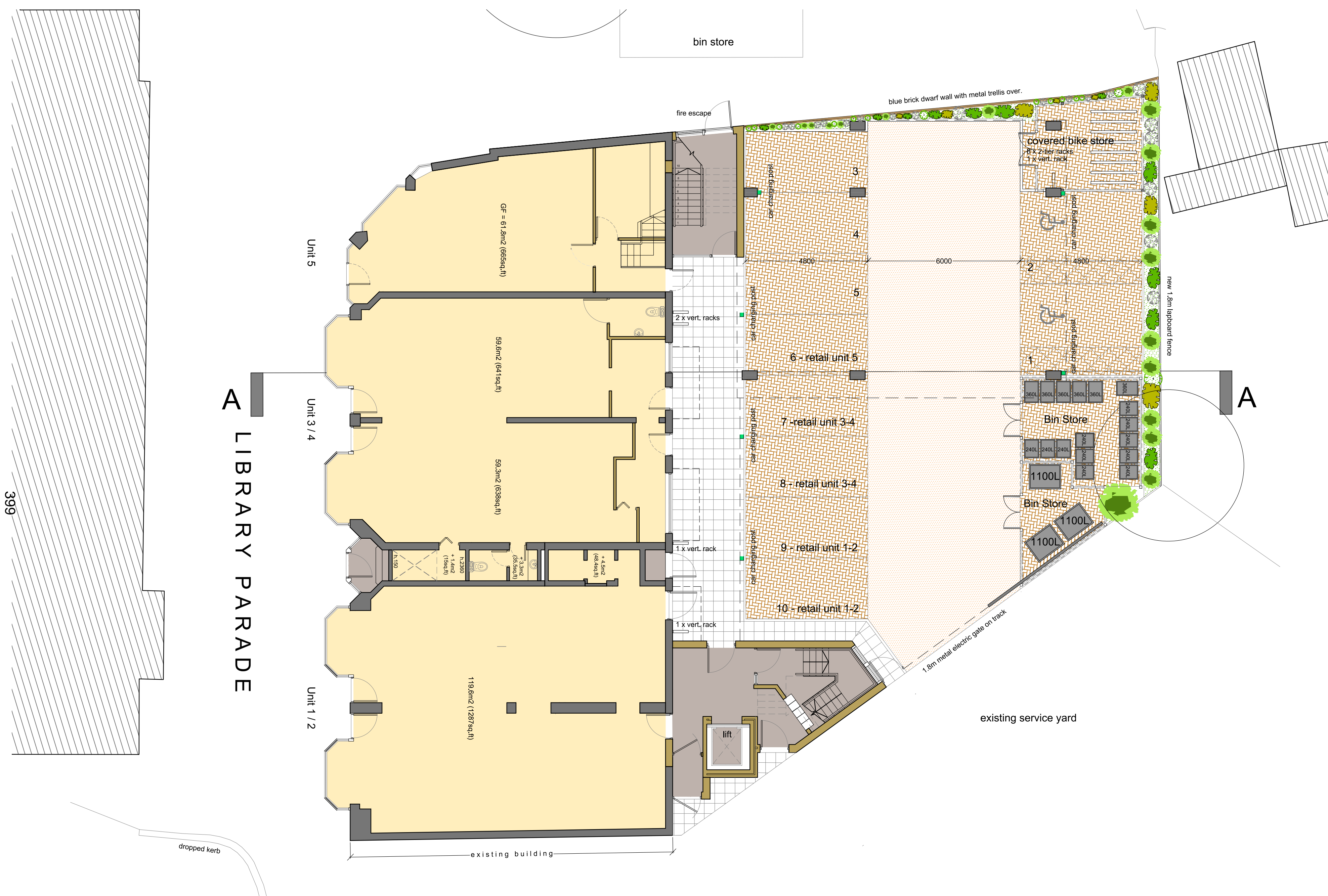
RevF Privacy screens added - 2no. 10/05/23
 RevE 3rd floor layout amended 15/03/23
 RevD Unit 13 - 3rd floor, lounge window re-positioned 06/03/23
 RevC Length of rear extension reduced 20/01/23
 RevB 3rd floor windows amended 19/12/22
 RevA Remaining 2nd floor walls on north and east elevations amended to blue brick 05/09/22

project
 Library Parade , Crockhamwell Road
 Woodley RG5 3LX
 client
 Hanslink Ltd

drawing title
 Proposed Library Parade and East Elevations
 drawing status
 PLANNING

scale	date	drawn by	checked by
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job no.	drawing no.	revision	
H16	PL10	F	

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Scale 1:100 @ A2

proposed ground floor plan

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RevC new application 20/03/2023
 RevB Length of rear extension reduced, bin store area inc. 20/01/2023
 5no. vertical bike racks added
 RevA Existing window shown at rear of Unit 3/4 12/08/2022

project
 Library Parade, Crockhamwell Road
 Woodley RG5 3LX
 client
 Hanslink Ltd

drawing title
 Proposed Ground Floor Plan
 drawing status
 PLANNING

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job no.	drawing no.	revision	
H16	PL05	C	

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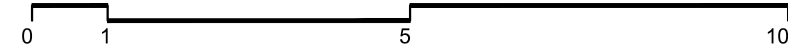


ACCOMMODATION SCHEDULE

Level	Type of Unit	Quantity	GIA m2
1st floor	1 bed	1	53
	1 bed	3	54
	1 bed	1	55
	1 bed	1	58
	2 bed	1	82
7 Units			

proposed first floor plan

Scale 1:100 @ A2



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RevB New application
RevA Length of rear extension reduced

20/03/2023
20/01/2023

project
Library Parade, Crockhamwell Road
Woodley RG5 3LX

client
Hanslink Ltd

drawing title
Proposed First Floor Plan

drawing status
PLANNING

scale
1:100@A2

job no.
H16

date
18.01.2023

drawing no.
PL06

drawn by
CbF

checked by
revision
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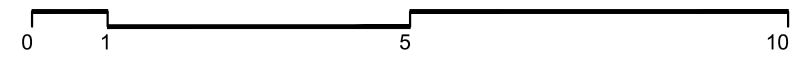


ACCOMMODATION SCHEDULE

Level	Type of Unit	Quantity	GIA m2
2nd floor	1 bed	1	50
	1 bed	1	54
	1 bed	1	58
	2 bed	1	75
	2 bed	1	81
		5 Units	

proposed second floor plan

Scale 1:100 @ A2



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RevC New application 20/03/2023
 RevB Length of rear extension reduced 20/01/2023
 RevA Bathroom window shown on south elevation of apartment unit 1 12/08/2022

project
 Library Parade, Crockhamwell Road
 Woodley RG5 3LX
 client
 Hanslink Ltd

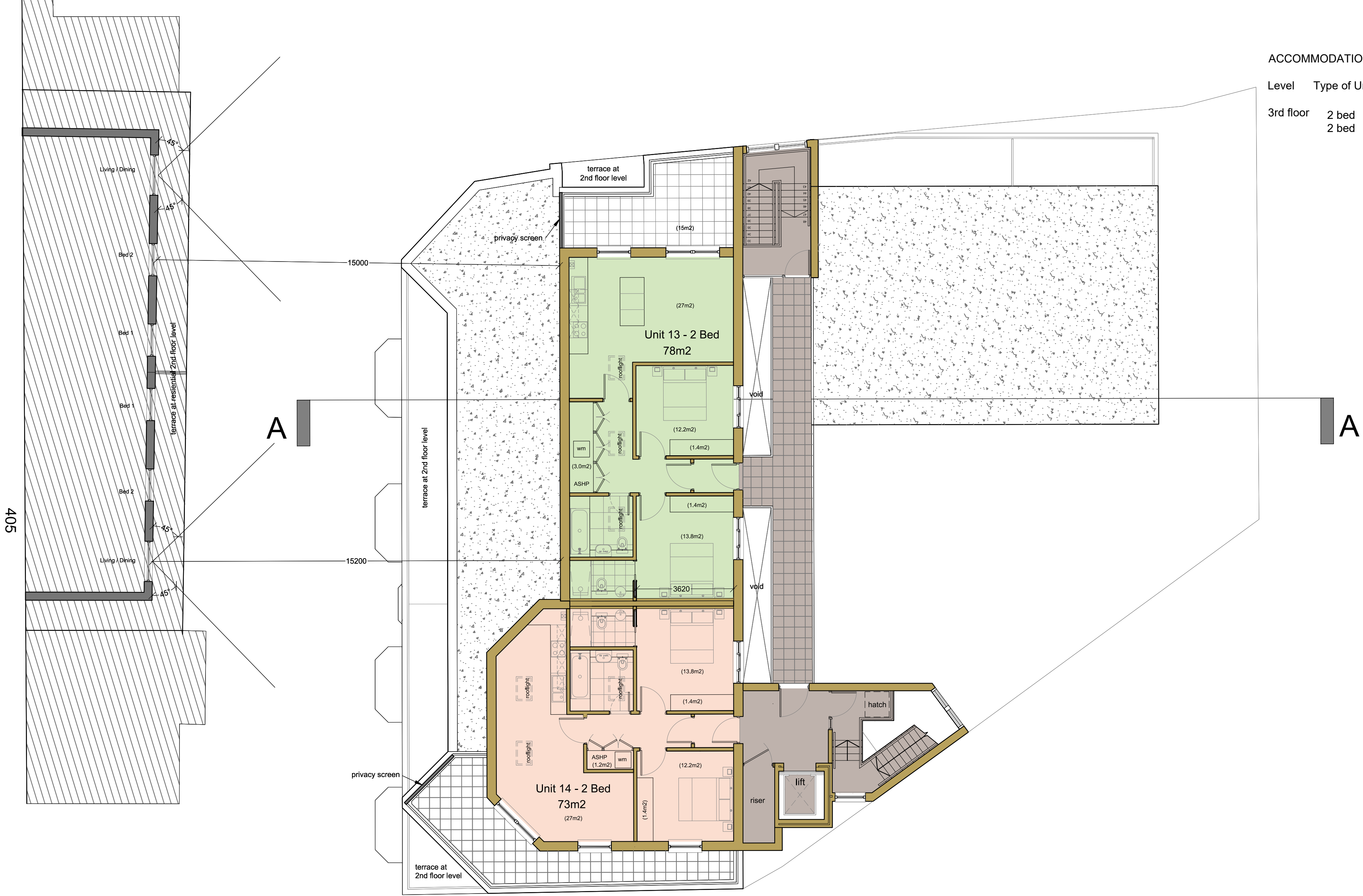
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 Proposed Second Floor Plan
 drawing status
 PLANNING

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 date
 27.04.2022
 drawn by
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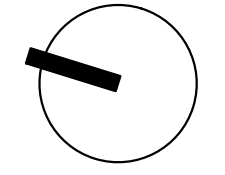
ACCOMMODATION SCHEDULE

Level	Type of Unit	Quantity	GIA m2
3rd floor	2 bed	1	78
	2 bed	1	73
		2 Units	



proposed third floor plan

Scale 1:100 @ A2



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RevE Privacy screens added - 2no.
RevD Layout amended to show 2 units
RevC Unit 13 - lounge window re-positioned
RevB Length of rear extension reduced
RevA Units 14 & 15 amended to show bedrooms facing Library Parade

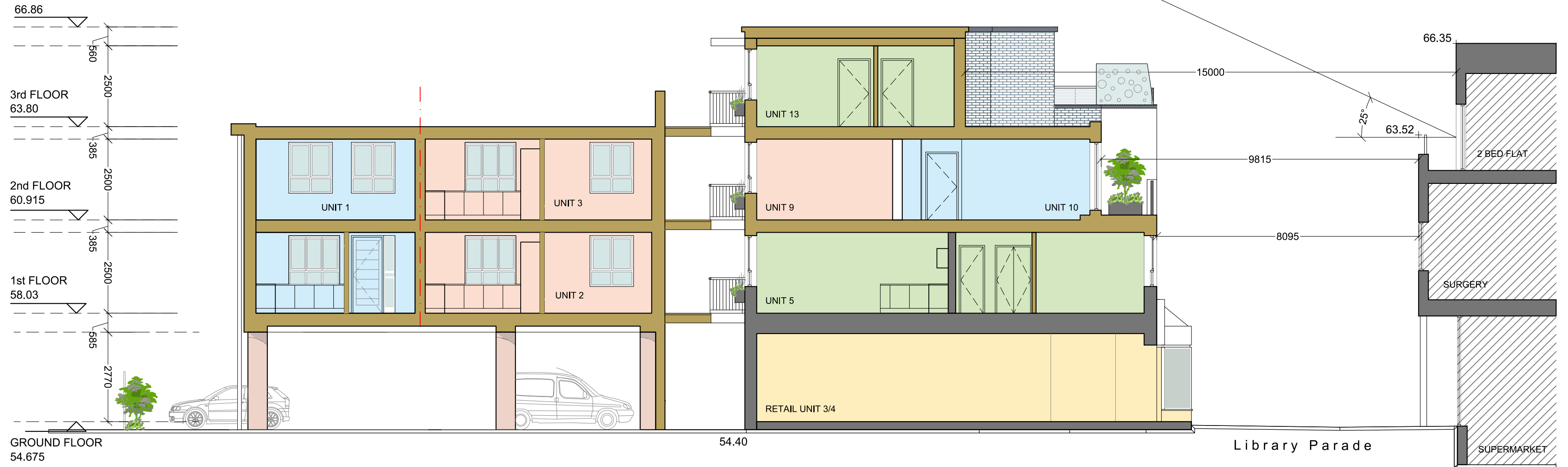
10/05/2023 project
14/03/2023 Library Parade, Crockhamwell Road
06/03/2023 Woodley RG5 3LX
20/01/2023 client
19/12/2022 Hanslink Ltd

drawing title
Proposed Third Floor Plan

drawing status
PLANNING

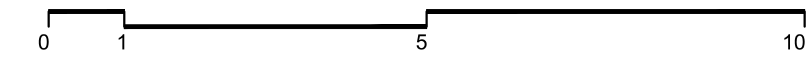
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job no.	drawing no.	revision	
H16	PL08	E	

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proposed section

Scale 1:100 @ A2



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RevD Privacy screen added at 3rd floor 10/05/23
 RevC 3rd floor amended 15/03/23
 RevB Length of rear extension reduced 20/01/23
 RevA Units 14 amended to show bedroom facing Library Parade and glazed doors/juliette balcony replaced with a window 19/12/2022

project
 Library Parade , Crockhamwell Road
 Woodley RG5 3LX

client
 Hanslink Ltd

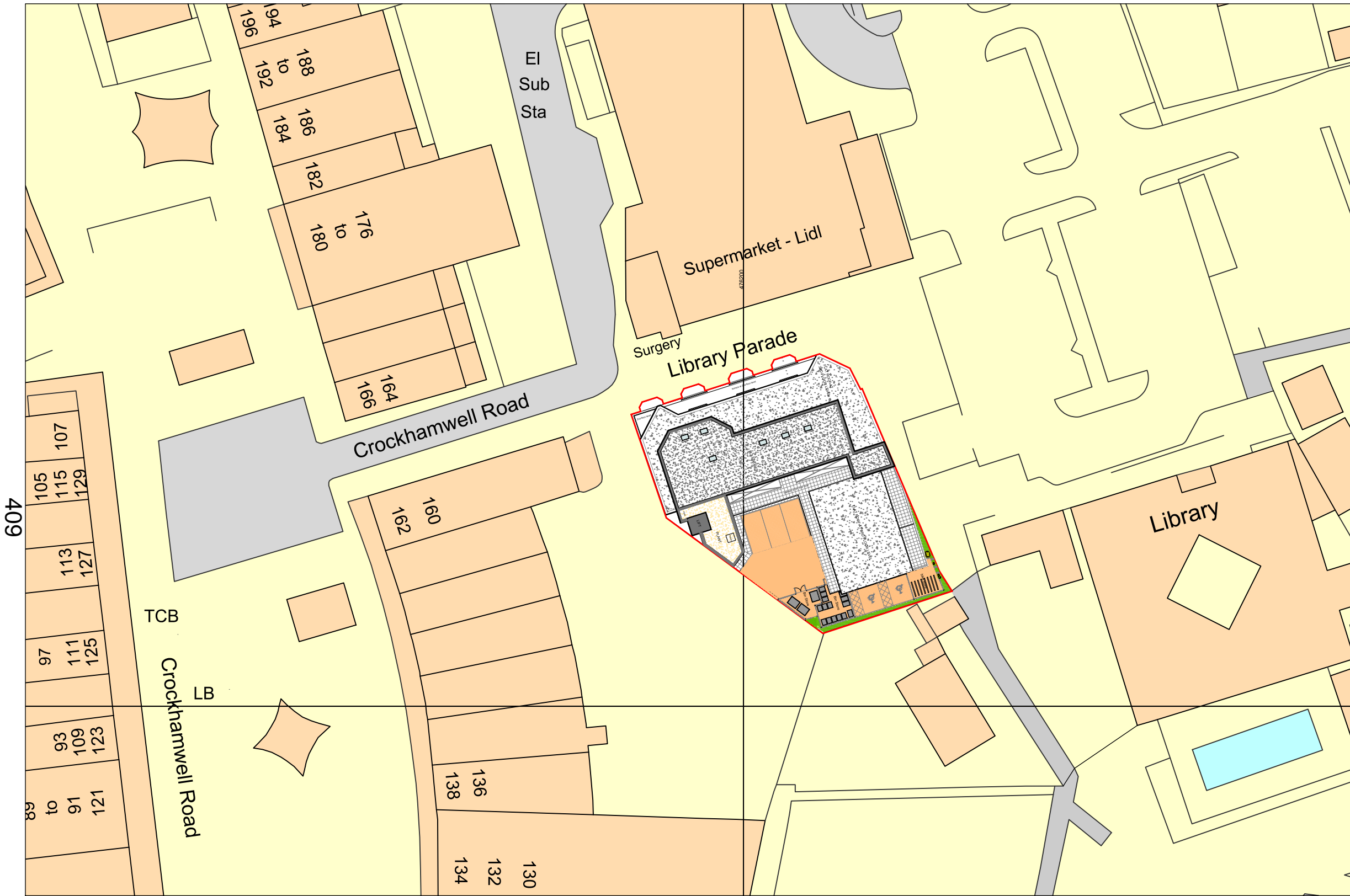
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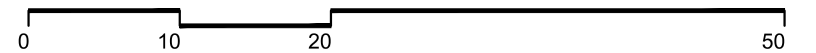
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 drawing no. PL12
 revision **D**

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block plan - proposed scheme

Scale 1:500 @ A3



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RevB 3rd floor layout amended

15/03/2023

RevA Length of rear extension reduced, bin store area inc.

20/01/2023

2no. disabled parking spaces shown

project
Library Parade, Crockhamwell Road
Woodley RG5 3LX

client
Hanslink Ltd

drawing title
Block Plan - Proposed Scheme

drawing status
PLANNING

scale
1:500@A3

job no.
H16

date
10.07.2022

drawing no.
PL02

drawn by
CbF

checked by

revision
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Agenda Item 10.

Application Number	Expiry Date	Parish	Ward
230283	16/06/2023	Wokingham Without	Wokingham Without;

Applicant	Palatine Homes
Site Address	Oak Apples, Oaklands Lane, Crowthorne, RG45 6JX
Proposal	Full application for the proposed erection of 6 no. dwellings with associated landscaping, parking and means of access following the demolition of the existing dwelling.
Type	Full
Officer	Marcus Watts
Reason for determination by committee	Listed by Councillor Helliard-Symons for the following reasons: <ul style="list-style-type: none"> - Impact of the proposal on the amenity of Oaklands Lane. - Impact of additional vehicles on highway safety, particularly for pedestrians accessing Hatch Ride Primary School.

FOR CONSIDERATION BY	Planning Committee on Wednesday, 14 June 2023
REPORT PREPARED BY	Assistant Director – Place and Growth

RECOMMENDATION	<p>APPROVAL subject to s106 agreement securing SANG and SAMM mitigation, a woodland management plan, affordable housing contribution and management of the private road.</p> <p>OR</p> <p>ii) Refuse full planning permission if the legal agreement is not completed within three months of the date of this resolution (unless officers on behalf of the Assistant Director – Place and Growth agree to a later date for completion of the legal agreement)</p> <p>The S106 to include the following heads of terms:</p> <p>Thames Basin Heaths SPA SANG and SAMM Mitigation</p> <p>Woodland Management Plan</p> <p>Affordable Housing Contribution</p> <p>Management of the Private Road</p>
-----------------------	---

SUMMARY

The application is for the erection of 6 detached dwellings with associated landscaping, parking and means of access, following the demolition of the existing dwelling, on the site known as 'Oak Apples' off Oaklands Lane in Crowthorne. This application follows a series of applications relating to the site, with most relevant being planning permission granted in 2022 for the erection of 4 detached dwellings.

Several objections to the current application have been received, however the site is within settlement, in a sustainable location and of an appropriate scale for the site with an acceptable impact on the character of the area. The scheme proposes a more appropriate housing mix compared to the extant permission with noted improvements relating to the proposed design.

No adverse impact has been identified in relation to highway safety, flooding and drainage, nor the adjacent Byway or the proximity of the proposed dwellings to the surrounding TPO protected woodland.

RELEVANT PLANNING HISTORY

Application No.	Proposal	Decision
180/1959	Dwelling house and garage	Conditionally Approved – 14/12/1959
163533	Nine dwellings with access (on adjoining site to the south)	Conditionally Approved – 08/11/2017
190101 W/19/3231789	Full application for the proposed erection of 9 no dwellings, associated access and landscaping following demolition of existing dwelling.	Refused – 05/03/2019 Dismissed at Appeal – 16/08/2019
200740	Full application for the proposed erection of a detached 6 no. bedroom dwelling and triple garage with first floor games room, plus reconstruction of existing outbuilding, following demolition of existing dwelling and garage.	Refused – 20/05/2020
202420	Full application for the proposed erection of a detached 6 no. bedroom dwelling and triple garage with first floor games room, plus reconstruction of existing outbuilding, following demolition of existing dwelling and garage.	Conditionally Approved – 20/11/2020
220358	Full application for the proposed erection of 4No dwellings with associated landscaping and means of access following the demolition of the existing dwelling.	Conditionally Approved – 19/05/2022
222648	Application to vary condition 2 of planning consent 220358 for the proposed erection of 4No dwellings with associated landscaping and means of access following the demolition of the existing dwelling. Condition 2 refers to approved details and the variation is to allow alterations and additions to the dwellings, realignment of the internal road access and driveways, and removal of an on street car parking area.	Conditionally Approved – 28/10/2022

DEVELOPMENT INFORMATION	
Proposed units	+5 dwellings (1 existing)
Proposed density - dwellings/hectare	6 dwellings/0.63 hectares
Number of affordable units proposed	0
Previous land use	Residential with adjoining woodland
Existing parking spaces	4
Proposed parking spaces	20 (including 6 garage spaces)
CONSTRAINTS	Modest Development Location Woodland Tree Preservation Order 1369/2010 (all trees on the site) Tree Preservation Order 368/1998 (Oak tree in south eastern corner) Thames Basin Heaths - Special Protection Area – 5km Berkshire Habitat – Lowland Mixed Deciduous Woodland Bat Consultation Zone Adjoins known Slow Worm Site Byway 29 I (Oaklands Lane) Non-classified/private road (Oaklands Lane) Risk of flooding from surface water (concentrated along eastern boundary) Nitrate vulnerable zone (groundwater)

CONSULTATION RESPONSES	
WBC Landscape and Trees	No objection subject to conditions & s106
WBC Highways	No objection subject to conditions
WBC Ecology	Awaiting final comments
WBC Drainage	No objection subject to condition
WBC Economic Prosperity & Place (Community Infrastructure)	No objection subject to affordable housing contribution secured via s106
WBC Public Rights of Way	No objection
Natural England	No objection subject to securing SANG and SAMM mitigation
Thames Water	No comment

REPRESENTATIONS

Town/Parish Council: Wokingham Without Parish Council welcomes the proposal for smaller houses which responds to local demand. Concerns remain relating to impact of increased vehicles traffic with associated highway safety risks, particularly at pick-up and drop off times for Hatch Ride Primary School, potential threat to mature trees due to overshadowing of gardens and securing the proposed biodiversity net gain. Request details to be included in a Construction Management Plan and a review of the TPO if necessary.

Local Members: This application has been listed to committee by Councillor Helliars-Symons for the following reasons:

- Impact of the proposal on the amenity of Oaklands Lane.

- Impact of additional vehicles on highway safety, particularly for pedestrians accessing Hatch Ride Primary School.

Neighbours: 19 comments received objecting to the proposal on the following grounds:

Overdevelopment/Not in accordance with local planning policy:

- WBC have a 5 year housing land supply, therefore local policy is in date and paragraph 14 of the NPPF should not apply. *Officer's Comment: The Council can currently only demonstrate a 3.95 years housing land supply.*
- Site is not part of the local development plan.
- Further residential development is not necessary due to the overdevelopment of the area as a whole.
- The scale of applications has increased considerably from a replacement dwelling to 6 dwellings.

Highway Safety:

- Close proximity to Hatch Ride Primary School – increased risk of harm to school children.
- Increased risk of harm to all users of the byway (Oaklands Lane).
- Inadequate access lane for vehicles (particularly in the dark).
- Increased traffic within the area, contributing to congestion and pollution.
- Double yellow lines were previously considered by the Council on the corner of Oaklands Lane and Hinton Drive.
- Access to the site should be via Oak Apples Drive to the rear of the site. *Officer's Comment: This was previously deemed as unacceptable under application ref 190101 due to the volume of protected tree removal which would be required to facilitate this.*
- Oaklands Lane has been closed to through traffic by bollards to the west of the site, redevelopment would reintroduce traffic to the lane.

Loss of Wildlife Habitat:

- Biodiversity offsetting (off site provision) would not fully compensate for the loss of habitat within the site, it is not an appropriate solution.
- Habitat has already been lost through the removal of protected trees and ground clearance, development would result in further harm to flora and fauna.
- Incorporating parts of the woodland into residential gardens will result in a lack of sufficient protection/enhancement.
- Lack of faith that recommended mitigation measures would be carried out.
- Slow worms have been observed on the lane.

Loss of Woodland:

- Development would require the loss of further trees.
- Recommended woodland maintenance is not practical due to the site being subdivided into plots.
- No plans for continued management following occupation of the dwellings. *Officer's Comment: A woodland management plan has been submitted and will be secured by the s106 agreement, the trees will remain protected under the Tree Preservation Order.*
- Potential risk of trees being felled following occupation due to the close proximity to the proposed dwellings, blocking light received by the dwellings and taking up garden space. There could be nothing stopping future removal. *Officer's Comment: The trees will remain protected under the Tree Preservation Order.*

- Dwellings, particularly plots 1 and 3, would be built too close to the existing trees and impact on tree roots, resulting in further loss.
- Trees have been illegally removed or harmed by a previous land owner. *Officer's Comment: There has been a recent serious of Tree Works applications relating to the site which granted consent for removal under the Town and Country Planning Act 1990 (as amended).*

Flooding and Drainage:

- Increased risk of flooding to existing properties bordering the site due to tree removal, especially in gardens.
- Increased risk of flooding within the area due to climate change.
- Development would put further strain on the sewerage system which currently overflows following heavy rainfall.

Insufficient parking provision: Particularly for visitors and deliveries, concern that parking would overspill onto neighbouring streets or the byway (Oaklands Lane).

Noise and disturbance to neighbouring properties during construction: The submitted Construction Management Plan does not acknowledge the proximity of Hatch Ride Primary School. *Officer's Comment: This may be referring to the submitted Construction Environmental Management Plan which relates to ecological matters only. A Construction Method Statement is a recommended pre-commencement condition.*

Impact on Character of the Byway: Oaklands Lane has a rural character.

Impact on Neighbouring Amenities: Loss of privacy and overshadowing to properties backing onto the site, visual impact (overbearing) and noise generated by future occupants.

Unaffordable Development. *Officer's Comment: The application is subject to a legal agreement securing a commuted sum in lieu of onsite affordable housing. This is an accepted approach within the Council's Affordable Housing SPD and is set out in the 'Affordable Housing' section of this report.*

PLANNING POLICY

National Planning Policy Framework
National Design Guide
National Planning Practice Guidance

Core Strategy (CS)

- CP1 – Sustainable Development
- CP3 – General Principles for Development
- CP4 – Infrastructure Requirements
- CP5 – Housing Mix, Density and Affordability
- CP6 – Managing Travel Demand
- CP7 – Biodiversity
- CP8 – Thames Basin Heaths Special Protection Area
- CP9 – Scale and Location of Development Proposals
- CP17 – Housing Delivery

MDD Local Plan (MDD)

CC01 – Presumption in Favour of Sustainable Development

CC02 – Development Limits

CC03 – Green Infrastructure, Trees and Landscaping

CC04 – Sustainable Design and Construction

CC06 – Noise

CC07 – Parking

CC09 – Development and Flood Risk

CC10 – Sustainable Drainage

TB05 – Housing Mix

TB06 – Development of Private Residential Gardens

TB07 – Internal Space Standards

TB21 – Landscape Character

TB23 – Biodiversity and Development

Other

Borough Design Guide Supplementary Planning Document

CIL Guidance + 123 List

Affordable Housing Supplementary Planning Document

Sustainable Design and Construction Supplementary Planning Document

Crowthorne Village Design Statement

PLANNING ISSUES

Description of Development

1. This application is for the proposed erection of 6no. detached dwellings with associated landscaping, parking and means of access following the demolition of the existing dwelling.
2. The site benefits from an extant permission for 4no. detached dwellings (refs 220358; 222648) which were of a larger size and scale providing 5 bedrooms each. This proposal involves a very similar layout and design to what has previously been approved, with the proposed access unchanged, however the size and scale of the dwellings has been reduced to 4 bedrooms each to allow the erection of two additional dwellings.
3. The 0.64 hectare site is located to the southern side of Oaklands Lane, which is a private road and byway that has recently been resurfaced with traffic restrictions introduced at the western end preventing through traffic. The site comprises a single derelict residential dwelling set within a plot that was originally surrounded and occupied by mature trees and extensive undergrowth. All trees within the site are protected by a woodland Tree Preservation Order (TPO), No.1369/2010, recently tree works have lawfully been carried out under tree works consent with the site now having a more open appearance.
4. To the north of the site is Hatch Ride Primary School and its playing fields. The west, east and south of the site is suburban in character and appearance, with nine dwellings recently constructed on the site adjoining to the south as part of planning consent ref 163533.

Principle of Development

5. Planning law states that applications for planning permission must have regard to Section 36 (6) of the Planning and Compulsory Purchase Act 2004, which requires that proposals be determined in accordance with the Local Development Plan unless material considerations indicate otherwise. In this case, the development plans consist of the Core Strategy 2010 and Managing Development Delivery Local Plan 2014. The requirements of Section 36(6) is also contained within Policy CC01 – Presumption in Favour of Sustainable Development. The National Planning Policy Framework (NPPF) must also be considered as it constitutes guidance which the Local Planning Authority must pay regard to. The NPPF does not change the statutory status of the development plan as the starting point for decision making, however, is a material consideration in any subsequent determination.
6. The site is located within settlement limits, as designated by Core Strategy policy CP9, and as such the development should be acceptable providing that it complies with the principles stated in the Core Strategy. Policy CP3 of the Core Strategy states that development must be appropriate in terms of its scale of activity, mass, layout, built form, height, materials and character to the area in which it is located and must be of high quality design without detriment to the amenities of adjoining land uses and occupiers.

7. The principle of residential development on the site was established under the original approval for four dwellings. Therefore, the assessment required for this application focuses on whether two additional units on site would be unacceptable in this location.

Housing Land Supply

8. It has been raised in objections to the application that the site is not allocated for housing in the Local Development Plan and therefore no further permission should be granted. Notwithstanding the weight given to the extant permission for the site, circumstances have recently changed since the previous approval with the Council currently only able to demonstrate that it has 3.95 years' worth of deliverable sites, rather than a five-year supply as required by the NPPF. Subsequently, the Local Development Plan is considered out-of-date in accordance with paragraph 11 of the NPPF.
9. Paragraph 11 states that where policies which are most important for determining the application are out-of-date, permission should be granted unless:
 - i. the application or policies in the Framework that protect assets of particular importance provides a clear reason for refusing the development; or
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole.
10. Firstly, in considering i), it must be recognised that the proposed development is located within settlement limits and not within any protected areas or assets of particular importance (as outlined in footnote 7 of paragraph 11). Therefore, this application must be considered under ii) to determine whether there are any adverse impacts generated by the development that would significantly and demonstrably outweigh the benefits. This is referred to as the 'tilted balance', as harm and benefits are not weighed equally, but tilted against any adverse impacts.
11. The tilted balance required by paragraph 11(d) of the NPPF will be given in the 'Planning Balance and Conclusion' section of the report.

Sustainability

12. Policies CP1, CP6 and CP9 of the Core Strategy permit development where it is based on sustainable credentials in terms of access to local facilities and services and the promotion of sustainable transport.
13. The site is within settlement limits within a modest development location and is acceptable in terms of the principles stated in the Core Strategy. It is 1.4km from Crowthorne High Street, 2.1km from Crowthorne Railway Station and 800m from the nearest bus stop which serves Bracknell and Camberley at 30-minute intervals throughout the day. On this basis, the site is within a sustainable location for further residential development and there are no sustainability concerns with the proposal, particularly when no issues were raised with the approval of nine dwellings on the adjoining site to the south and the principle of developing this site has already been established.

14. In short, the principle of erecting two additional dwellings on the site is acceptable subject to other material planning considerations which are set out below.

Design and Character of the Area

Density and Built Form

15. Policy CP5 of the Core Strategy and Policy TB05 of the MDD Local Plan require an appropriate dwelling density and R10 of the Borough Design Guide SPD seeks to ensure that the development achieves an appropriate density in relation to local character.
16. The density of the site is 6 detached dwellings within 0.63 hectares of land, which is lower than the density of the development to the south (13 detached and semi-detached dwellings within 0.63 hectares) and the wider established neighbourhood which is in excess of 20 dwelling per hectare. Therefore, the proposed density is appropriate in relation to local character. The lower density is largely a consequence of the trees on the site and its woodland setting. Tree retention is now to the satisfaction of the Council's Landscape and Trees Officer, as discussed in the 'Landscaping and Trees' section of the report.
17. In terms of its bulk and scale, the footprint of each dwelling varies slightly with an average of 132.7m². The cumulative footprint of the development is approximately 795.8m², which is only slightly larger than the cumulative footprint for the extant permission (715m²) despite the introduction of two additional units. Together with the reduction in size, the height of each dwelling has been reduced to a consistent ridgeline of 9 metres from ground level compared to 9.6 metres.
18. Overall, the bulk and scale of the dwellings is more comparable with existing detached dwellings in the surrounding area and this is an improvement from the extant permission. The density of the proposed development remains acceptable despite the introduction of two additional units. Therefore, the proposal is not viewed as an overdevelopment of the site.

Design and Siting

19. The design principles of the scheme remain largely unchanged from the extant permission, each dwelling has a hipped roof with front gable projections which is consistent with the local vernacular. While the street scene is consistent there is variety in materials with differing brick detailing, particularly using quoins, porch designs as well as examples of dormer windows at the front and bay windows. The variety in design promotes the attractiveness of the scheme, while the consistent scale and roof forms ensures that the scheme ties in together. A materials schedule has been submitted which clarifies the detailing and there is no objection to this arrangement.
20. While the previous scheme for four dwellings was considered to have an acceptable impact on the character of the area, due to the reduction in scale of the dwellings it is considered that the proposed layout is more characteristic with the surrounding area. This is particularly evident with the rhythm of the street scene with consistent space in between the dwellings, while with the previous scheme the dwellings were much wider and subsequently there was a shorter separation distance between each other. The size of each plot is also more in keeping with the surrounding streets.

21. The proposed cul-de-sac arrangement is unchanged from the extant permission, although the primary arrangement for streets in the area is linear there are several cul-de-sacs within the surrounding neighbourhood including Oak Apples Drive immediately to the south of the site. The dwellings are orientated to the street and provide good surveillance and activation of the street in compliance with R6 of the Borough Design Guide SPD.
22. The proposed siting of the dwellings ensures that the built form does not conflict with the trees on and adjacent to the boundaries of the site, as well as facilitating the creation of two woodland areas at the north-eastern and south-eastern boundaries which do not form part of the residential plots. The incorporation of front gardens in the proposed layout, with additional tree planting and an appropriate balance with parking provision, sufficiently softens the street scene and ensures that it is not dominated by hardstanding associated with car usage.
23. Because of the TPO designation of the site and each dwelling benefiting from habitable accommodation in the loft space, it is prudent to remove permitted development rights for Class A extensions, Class B roof extensions, Class E outbuilding and Class F hardstanding. Further, to avoid any sense of a gated development, the installation of gates under permitted development is also removed. This is consistent with the conditions attached to the extant permission.

Landscape and Trees

24. Policy CC03 of the MDD Local Plan aims to protect green infrastructure networks, retain existing trees and establish appropriate landscaping and Policy TB21 requires consideration of the landscape character. Section 3.5(a) of the Crowthorne Village Design Statement requires regard to important landscape features, including woodland.
25. The site is with the settlement boundary of Crowthorne, however it is well treed with a woodland TPO (1369/2010) covering the whole site. Oaklands Lane consists of a single track private road designated as a byway which extends past the site on the northern boundary. On either side of the byway is a significant amount of vegetation including large trees giving the impression to users that the lane is not passing through a built-up area. The character of the settlement in this area is highly wooded due to the significant number of trees retained within gardens, the adjacent school site and areas of incidental amenity land.
26. A previous application for nine dwellings (ref 190101) involved the wholesale removal of a large number of trees, approximately 90% of all trees on site, which was deemed unacceptable and formed a reason for refusal. Following this there has been the removal of 11 trees as well as ground clearance in accordance with a series of Tree Works applications. The extant planning permission for the site did not propose the removal of any additional trees than had been approved under the Tree Works applications and the retention and enhancement of trees was secured via conditions.
27. Under this proposal, the overall footprint of each dwelling extends further into each plot as the gardens are narrower which subsequently reduces the size of open areas of garden. Upon submission of the application, the Landscape and Trees Officer raised concerns regarding the relationship of the reconfigured site and how these would

impact on the TPO trees especially in relation to shading and overshadowing from the trees for several of the gardens. This was also raised in public objections to the scheme, with concern that the trees would impact on living conditions for future occupiers and lead to their removal.

28. Following discussion with the applicant and an accompanied site visit to look at the trees in question, the Officer is now satisfied that the trees would not cause adverse overshadowing of the garden spaces due to their form and relative high canopies. Subsequently they are satisfied that the trees to be retained should not have a significant impact on the future enjoyment of the rear gardens. There will still be the issue of seasonal nuisance such as leaf drop in the autumn and shedding of twigs in high winds, however this will need to be a consideration for future occupiers to accept when living close to trees. Regardless, as all trees including any new planting are protected by the TPO, it would be a criminal offence to fell or carry out any unauthorised tree works, and any proposed works would have to be submitted to the Council under a Tree Works application.
29. Following the accompanied site visit, a revised Arboricultural Impact Assessment, Method Statement and Tree Protection Plan (ACD Environmental, Rev. B, 10/05/2023) has been submitted which now includes the removal of two dead trees at the site's entrance and a small tree in declining health in the rear garden of Plot 1. These documents also include details of other proposed tree works and how trees will be protected during and after the development. The Landscape and Trees Officer has reviewed these documents and raised no objections.
30. To compensate for the required tree works, additional tree planting adjacent to the eastern boundary of the site in the rear gardens of plots 1 & 2 has been proposed in a revised soft landscape proposals drawing (PRI24098-11A) which has been accepted by the Trees and Landscape Officer. A Woodland Management Plan (ACD Environmental, 06/01/2023) has also been submitted which will cover the areas of woodland outside the plot gardens. The aim of this document is to secure the long-term retention of the woodland maintain the visual amenity provided by the woodland and to enhance the biodiversity. The Woodland Management Plan forms part of the s106 agreement which provides a degree of certainty to its continued maintenance and management.
31. Following negotiations with the applicant, sufficient information has now been received relating to the retention of all significant trees on site, additional tree planting and the protection and management of all trees during and after the development. Therefore, the proposed development will sufficiently retain the woodland character of the area and the Council's Landscape and Trees Officer has raised no objection subject to conditions.

Development of a Residential Garden

32. Policy TB06 of the MDD Local Plan seeks to avoid inappropriate development of residential gardens where there is harm to the local area. Permission would only be granted where there is a positive contribution to the built form and surrounding spaces, integration with the layout of the surrounding area, appropriate hard and soft landscaping, amenity space, building separation and compatibility with the general building height. R22 of the Borough Design Guide SPD also notes that backland development must not harm the existing character of the local area, relate positively to

the existing layout and urban form, maintain the quality of environment for existing residents and create a satisfactory living environment.

33. There are no objections to the proposed development in terms of Policy TB06 with sufficient conformity with the building form, height, layout, orientation, setbacks, building lines, materials and design of the dwellings in the surrounding area. Indeed, this proposal marks an improvement in terms of building form and height with the scale of the dwellings reduced and more in keeping with neighbouring development.
34. In terms of plot size, neighbour amenity, parking provision, boundary treatments, soft and hard landscaping, amenity space and access, the proposal is largely unchanged from the extant permission with exception of the plot sizes which have been reduced to accommodate two additional units. Additionally, further tree planting on the boundaries of the site to mitigate the loss of trees in declining health has also been secured through the proposed soft landscape proposals.
35. More broadly, the proposed scheme retains a satisfactory outcome in terms of the character of the area by balancing the landscape setting and site biodiversity. This is reinforced in R22 of the Borough Design Guide, which states that backland development “must not harm the character of the area, for instance if existing trees on the plots contribute to a characteristic ‘green backdrop’.
36. Overall, the proposed development has an acceptable design including some attributes which are more positive than the extant permission for four dwellings on the site. The proposed density and built form would have an acceptable impact on the character of the area while the scheme as a whole would not have a detrimental impact on the woodland character of the site and surrounding area. The proposal is therefore acceptable in this regard.

Dwelling Mix

37. Policy CP5 of the Core Strategy requires an appropriate mix of dwelling types, tenures and sizes so that the housing needs of the community are met. Policy TB05 of the MDD Local Plan requires an appropriate housing mix which reflects a balance between the underlying character of the area and both the current and projected needs of households. The Berkshire (including South Bucks) Strategic Housing Market Assessment (February 2016) identified future housing need for the Wokingham Borough with 66% of all dwellings to be 3+ bedrooms.
38. The proposed scheme constitutes a more efficient use of the site due to proposing the erection of 6no. 4 bedroom dwellings, rather than 4no. 5 bedroom dwellings as approved under the extant permission. This mix is also fundamentally more appropriate in an area predominated by family sized three and four bedroom dwellings.
39. While the inclusion of smaller dwellings would be appropriate to complement the mix of the site and the surrounding area, the proposed development is of a small scale and constitutes an improvement from the previous scheme in this respect. The proposal is therefore acceptable in this regard.

Housing Amenity

40. Each dwelling has a proposed gross internal area of between 210.6m² and 223.1m² which would exceed National Space Standards requirements for a 4 bed 8 person dwelling. Each bedroom exceeds the national standards for a double (11.5sqm) and ample storage and living space is proposed. Additionally, as per the extant permission, the proposed fenestration would allow sufficient daylight into all habitable rooms. Therefore, the level of internal amenity as proposed is compliant with policy TB07 of the MDD Local Plan and is acceptable.
41. Due to the reduction in plot sizes under this current proposal, the size of the garden space serving each dwelling has been reduced in width. However, each plot has retained ample garden space with a minimum depth of 22m on plot 1 and upwards of 26 metres on plots 4-6. This exceeds the requirement for a minimum depth of 11m set out in R16 of the Borough Design Guide SPD, which states that gardens should be capable of accommodating play, clothes drying and storage.
42. While the relationship of the dwellings with the woodland would restrict the amount of open space each plot enjoys, particularly for plots 1 and 3, the trees mostly have high canopies meaning that the majority of garden space would be usable. Additionally, as discussed above, due to their form the trees would not adversely restrict the level of sunlight received by the gardens. Therefore, the level of external amenity as proposed is acceptable.

Neighbouring Amenity

43. Within the development, there would be more than a 21m separation across the proposed access drive which significantly exceeds the recommended minimum front to front distance of 10m set out in R15 of the Borough Design Guide SPD. Due to the increased flank to flank separation distances between the plots there are no concerns relating to potential loss of light or overbearing impact.
44. First floor side windows serve non-habitable rooms and is therefore acceptable, subject to these being conditioned as obscure glazed and permitted development rights being removed to prevent additional windows being installed on side elevations. Therefore, any potential concerns relating to loss of light, overbearing or overlooking impact has been sufficiently addressed and the proposal is compliant with Core Strategy policy CP3 in this respect.
45. Regarding properties neighbouring the site, the additional development of the site would retain sufficient back-to-back separation distances with existing development on Hinton Drive and Pensford Close. Plots 1 and 2 would have a minimum back-to-back separation distance of approximately 43.5m with 6-10 Hinton Drive while plot 3 has a separation of approximately 48m with 17 Pensford Close, and plots 4-6 have a minimum separation of approximately 43.5m with 14-6 Pensford Close at first floor level.
46. In each case, the rear-rear separation from neighbouring properties is well in excess of the minimum of 26m as set out in R15 of the Borough Design Guide SPD. Moreover, the TPO protected trees on the southern, eastern and western boundaries would add a level of screening, providing further mitigation in this respect. There are therefore no

concerns in relation to loss of light, overshadowing or overbearing impact on properties neighbouring the site and the proposal is compliant with Core Strategy Policy CP3 in this respect.

47. Concern has been raised about noise pollution following the development. However, given the lower density of the site and more than adequate setbacks there are no objections to the scheme on these grounds.
48. Overall, the proposed erection of an additional two units on the site would not introduce any adverse impacts on the amenities of neighbouring properties as well as within the development itself. The proposal therefore complies with Core Strategy Policy CP3 and is acceptable in this respect.

Highway Access and Parking Provision

49. Each plot has a minimum of three off-street car parking spaces, with all except plot 1 benefiting from additional garage accommodation and plots 3 and 6 able to accommodate four spaces comfortably. Concern has been raised about the potential for parking to overspill onto the byway or neighbouring streets, particularly for visitors and deliveries, however the proposed car parking provision complies with the Council's standards (of at least three spaces) and the Highways Officer has raised no concerns. Each dwelling also benefits from an EV charging point and this is conditioned.
50. Following initial concern raised by the Highways Officer regarding the lack of cycle parking provision, a revised site plan was submitted showing a shed for each dwelling at the rear which can accommodate secure storage for bicycles. This is compliant with policy CC07 of the MDD Local Plan and secured by condition.
51. As per the extant permission, the proposal seeks to utilise the existing access onto Oaklands Lane. It is to be widened to allow for a turning point for a refuse vehicle, while within the site a 5m wide access road and turning head will be constructed. Following the submission of further information relating to the access the Highways Officer has raised no objection to this arrangement or the visibility splays for vehicles entering and exiting the site. The access road will remain private and the s106 agreement will include details of the management company and the level of money set aside for maintenance.
52. In terms of additional trip movements to and from the site as a result of the two additional units, the Highways Officer has advised that two extra dwellings would likely mean one extra movement each half hour in peak periods. This is a very small increase in movement compared to what had already been agreed as an acceptable impact on the local highway impact, and therefore the Officer raises no objections on Highway Safety grounds.
53. The use of the Byway for residential access was not objected to by either WBC Highways or WBC Public Rights of Way in the extant permission and this remains the case for this proposal. The proposal does not conflict with recent improvements to the byway, namely the recent resurfacing and bollards to the east to prevent through traffic, and the inclusion of a turning head within the site prevents further conflict.
54. A number of objections refer to concerns about increased traffic and the safety risks this poses to pupils accessing Hatch Ride Primary School opposite. However, when

noting the low levels of traffic associated with the proposed development, the very small increase associated with the two additional units, the recently implemented Traffic Regulation Order which prevents through traffic on Oaklands Lane, the limited time associated with the pick up and drop off period, and that this is a secondary access serving the school, the level of conflict is viewed as low and not consequential to any perceived impact.

55. To prevent disruption during the construction period, a full Construction Method Statement and Management Plan will need to be agreed with the Council and this forms a pre-commencement condition. This will allow a more thorough review of on-site management practices, including how it will manage movements through Oaklands Lane, protect the TPO trees and co-exist with the school opposite. There would be opposition to deliveries being undertaken during peak periods including school drop off and pick up. A condition to ensure that vehicles associated with the construction works park or block the Byway is also recommended.
56. For the above reasons, the proposal is in accordance with the National Planning Policy Framework, policy CP6 of the Core Strategy and policy CC07 of the MDD Local Plan and is acceptable in this respect.

Ecology

57. Policy CP7 of the Core Strategy states that sites designated as of importance for nature conservation are to be conserved and enhanced and inappropriate development will be resisted. Policy TB23 of the MDD Local Plan requires the incorporation of new biodiversity features, buffers between habitats and species of importance and integration with the wider green infrastructure network.
58. Paragraph 174 of the NPPF states that development should contribute to and enhance the natural and local environment by protecting and enhancing sites of biodiversity or geological value and minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
59. The site is within and surrounded by land where bat roosts have previously been found and because of its extensive tree and shrub coverage, offers a good example of habitat for wildlife.
60. The Council's Ecology Officer did not object to the extant permission. The applicant has submitted several ecological surveys and reports including an Ecological Assessment Report to support this application which includes additional details on the impact of the two additional units proposed.
61. At the time of writing, Officers are still awaiting final comments from the Council's Ecologist and this will be updated in the Supplementary Agenda prior to the Committee meeting.

Flooding and Drainage

62. Policy CC09 of the MDD Local Plan requires consideration of flood risk from historic flooding and policy CC10 requires sustainable drainage methods and the minimisation of surface water flow. Paragraph 167 of the NPPF states that when determining any

planning applications, local planning authorities should ensure that flood risk is not increased elsewhere.

63. The site is located within Flood Zone 1 and the proposal represents no additional flood risk or vulnerability from rivers. However, Environment Agency data indicates that the eastern edge of the site is prone to surface water flooding and this is reaffirmed in comments from neighbours.
64. The applicant has submitted an Addendum Drainage Statement (BEAL Consulting Engineers Ltd, 14/12/2022) to accompany the Drainage Strategy submitted for the 4 houses scheme (LANMOR Consulting, January 2022, Rev. B). The Council's Drainage Officer has reviewed both documents and confirmed that the submitted details has been updated to consider additional potential from six dwellings compared to four. They have also highlighted that the site will now include permeable paving as part of the on-side SuDS hierarchy, which is an improvement from the extant permission.
65. The Drainage Officer has raised no concerns about the proposed drainage system for the site, including in terms of wastewater capacity. To ensure that the drainage system can accommodate the increased risk of surface water flooding associated with climate change, they have requested a specific exceedance flow routing plan to be submitted prior to the commencement of the development. This forms a recommended condition and would allow a final review from the Officer before the development can commence.
66. Subject to the recommended condition, the proposal complies with the NPPF and MDD Local Plan Policies CC09 and CC10 and is acceptable in this respect.

Waste Storage

67. Policy CC04 of the MDD Local Plan requires adequate internal and external storage for the segregation of waste, recycling, green waste and composting and an appropriate area for ease of collection.
68. Following initial feedback from the Council's Highways Officer, a revised site plan was submitted which includes a communal bin collection point positioned in a soft landscaping area fronting plots 5 & 6. This is for ease of collection, with refuse vehicles able to enter the site from Oaklands Lane and use the turning head, while there is ample storage for bins within the garages or to the side of each dwelling. The proposal is therefore compliant with policy CC04 and is acceptable in this regard.

Contamination

69. The application involves the demolition of an abandoned property which was recently damaged by fire. The Council's Environmental Health noted for the extant permission that the developer should be aware of the potential for sources of contamination relating to that building, such as asbestos or storage of heating oil or chemical storage. This is conditioned as per the extant permission.

Other Matters

Community Infrastructure Levy

70. The application is liable for CIL payments because it involves a net increase of additional floor area in excess of 100m². It is payable at £365/m² index linked.

Affordable Housing

71. Policy CP5 of the Core Strategy, Policy TB05 of the MDD Local Plan and the Affordable Housing SPD specify an affordable housing rate of 40% for any development involving five dwellings or more on land with a total area of 0.16 hectares or more.
72. As per the extant permission, the applicant has agreed to contribute to the delivery of affordable housing through a commuted sum. Based on the Viability Study undertaken by Level Ltd, the Council's approach to calculating commuted sums for affordable housing is based on the difference in the residual development value of a scheme without on-site affordable housing and the same scheme with on-site affordable housing provision. The commuted sum sought in-lieu of 2 units is calculated at £175,452.64 and this forms part of the s106 agreement.

Thames Basin Heaths Special Protection Area

73. Policy CP8 of the Core Strategy states that where development is likely to have an effect on the Thames Basin Heaths Special Protection Area (TBH SPA), it is required to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered.
74. In this case the application includes a net increase of five dwellings on a site that is within 1km of the SPA. In line with Policy CP8, mitigation measures in the form of a Suitable Alternative Natural Greenspace (SANG) contribution and Strategic Access Management and Monitoring (SAMM) Contribution form part of the s106 agreement.

Planning Balance and Conclusion

75. Paragraph 8 of the NPPF sets out that achieving sustainable development means that development should satisfy three overarching objectives in relation to economic, social and environmental benefits.
76. In terms of economic benefits, there would be direct and indirect job creation during the construction period however given the scale of the development it is limited and temporary in its extent. The development would add six dwellings (net increase of five) to existing supply within settlement and in a sustainable location. With the introduction of two additional dwellings compared to the extant permission and associated taxes, duty and Community Infrastructure Levy this holds moderate weight in the tilted balance.
77. In terms of social benefits, the provision of six family sized dwellings, with a more appropriate housing mix compared to the extant permission, is of particular relevance. The proposal is also policy compliant in its contribution towards affordable housing, although this is an off-site gain. This holds moderate weight in the titled balance.

78. In terms of environmental benefits, there would be biodiversity enhancements on-site through mitigation measures and off-site through contributes to the Thames Basin Heath Special Protection Area. There has been removal of trees in recent years but is important to note that as per the extant permission the vast majority of trees on site are to be retained, with only dead or failing trees to be directly removed while the provision of a woodland management plan and continued TPO protection would ensure long-term protection. On balance, this attracts minor weight however subject to the relevant conditions and legal obligations, and when compared to the extant permission, the proposal represents a satisfactory outcome for the site.
79. The principle of residential development on the site has already been accepted. When assessing the provision of two additional dwellings on the site, and applying weight to the economic, social and environmental benefits of the scheme, no adverse harm has been identified which would significant and adversely outweigh the identified benefits as required by Paragraph 11 of the NPPF. Therefore, the proposal represents an acceptable outcome for the site and is recommended for approval, subject to conditions and legal obligations under the s106 agreement.

The Public Sector Equality Duty (Equality Act 2010)

In determining this application the Council is required to have due regard to its obligations under the Equality Act 2010. The key equalities protected characteristics include age, disability, gender, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief. There is no indication or evidence (including from consultation on the application) that the protected groups identified by the Act have or will have different needs, experiences, issues and priorities in relation to this particular planning application and there would be no significant adverse impacts upon protected groups as a result of the development.

APPENDIX 1 - Conditions / informatives

APPROVAL subject to the following conditions and informatives:

1. Timescale - *The development hereby permitted shall be begun before the expiration of three years from the date of this permission.*

Reason: In pursuance of s.91 of the Town and Country Planning Act 1990 (as amended by s.51 of the Planning and Compulsory Purchase Act 2004).

2. Approved details – *This permission is in respect of the submitted application plans, drawings and documents numbered P/22/08/200, P22/08/S/210, P22/08/S/220, P22/08/S/230, P22/08/S/240, P22/08/S/250, P22/08/S/260, 555:055, 576:001, 576:002, 576:003, 576:004 and titled ‘External Materials Schedule’ and ‘Addendum Drainage Statement for Oak Apples, Crowthorne’ received by the local planning authority on 7 February 2023, numbered 22.94-002, P/22/08/S/201:A and P22/08/S/202:A received on 17 March 2023 and numbered PRI24097-11A and PRI24098-03A received on 4 May 2023. The development shall be carried out in accordance with the approved details unless other minor variations are agreed in writing after the date of this permission and before implementation with the Local Planning Authority.*

Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the application form and associated details hereby approved.

3. Construction Management Plan – *Prior to the commencement of development hereby permitted, a Construction Management Plan shall be submitted to and approved in writing by the local planning authority. The plan should detail items such as:*
 - a) the parking of vehicles of site operatives and visitors,*
 - b) loading and unloading of plant and materials,*
 - c) construction working times and equipment/material delivery times*
 - d) phasing of construction*
 - e) storage of plant and materials used in constructing the development,*
 - f) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate,*
 - g) wheel washing facilities,*
 - h) measures to control the emission of dust and dirt during construction,*
 - i) phasing of construction, lorry routing and potential numbers*
 - j) types of piling rig and earth moving machinery to be utilized*
 - k) any temporary lighting*
 - l) a scheme for recycling/disposing of waste resulting from demolition and construction works*
 - m) burning on site policy*
 - n) site manager contact details to allow for 24 hour community contact*
 - o) any other measures proposed to mitigate the impact of construction operations*

The plan shall be implemented in full and retained until the development has been constructed. Any deviation from this Statement shall be first agreed in writing with the local planning authority.

*Reason: In the interests of highway safety and convenience and neighbour amenities.
Relevant policy: Core Strategy policies CP3 & CP6.*

4. *Exceedance flow routing plan – Development shall not take place until an exceedance flow routing plan for flows above the 1 in 100+40% climate change event has been submitted to and approved in writing by the Local Planning Authority. The proposed scheme shall identify exceedance flow routes through the development based on proposed topography with flows being directed to highways and areas of public open space. Flow routes through gardens and other areas in private ownership will not be permitted. The scheme shall subsequently be completed in accordance with the approved details before the development is first brought into use/occupied.*

Reason: To ensure satisfactory drainage of the site and avoid flooding. It is important that these details are agreed prior to the commencement of development as any works on site could have implications for drainage in the locality. Relevant policy: NPPF Section 14, Core Strategy policy CP1 and Managing Development Delivery Local Plan policies CC09 and CC10.

5. *Boundary treatments – Prior to the commencement of development hereby permitted, details of all boundary treatment(s) shall first be submitted to and approved in writing by the local planning authority. The details shall:
a) Avoid boundaries formalised by walls or close boarded fencing,
b) Reduce the possibility of any damage to trees during works,
c) Ensure permeability on boundary treatments to minimize fragmentation and allow free movement of wildlife throughout the site,
d) Include new native planting, including flowering plants.*

The approved scheme shall be implemented prior to the first occupation of the development or phased as agreed in writing by the local planning authority. The scheme shall be maintained in the approved form for so long as the development remains on the site.

Reason: In the interests of amenity, protection of trees and wildlife. Relevant policy: NPPF Section 15, Core Strategy policies CP1, CP3, CP6 and CP7 and Managing Development Delivery Policies TB21 and TB23.

6. *Landscape details - Prior to the commencement of the development, hereby approved, details of hard landscaping shall be submitted to and approved in writing by the local planning authority. These details shall include, as appropriate, proposed finished floor levels or contours, means of enclosure, car parking layouts, other vehicle and pedestrian access and circulation areas, hard surfacing materials and minor artefacts and structure (e.g. furniture, play equipment, refuse or other storage units, signs, lighting, external services, etc).*

Soft landscaping details will need to be implemented in accordance with the Landscape Proposals drawing (PRI24098-11A) and accompanying Soft Landscape Specification dated January 2023 (PRI24098 Spec).

All hard and soft landscape works shall be carried out in accordance with the approved details prior to the occupation of any part of the development or in accordance with a timetable approved in writing by the local planning authority. Any trees or plants which, within a period of five years after planting, are removed, die or

become seriously damaged or defective, shall be replaced in the next planting season with others of species, size and number as originally approved and permanently retained.

Reason: In the interests of visual amenity. Relevant Policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

7. *EV Charging Strategy* – *Prior to commencement of development, details for an Electric Vehicle Charging Strategy serving the development shall be submitted for approval in writing by the Local Planning Authority. This strategy should include details relating to on-site infrastructure, installation of charging points and future proofing of the site unless otherwise agreed in writing by the Local Planning Authority.*

Reason: In order to ensure that secure electric vehicle charging facilities are provided so as to encourage the use of sustainable modes of travel. Relevant policy Core Strategy policies CP1, CP3 & CP6.

8. *Protection of trees* – a) *No development or other operations shall take place except in complete accordance with Arboricultural Impact Assessment and Method Statement (PRI24098aia-amsB) and associated Tree Protection Plan (PRI24098-03A) by ACD Environmental dated 5th May 2023 (hereinafter referred to as the Approved Scheme).*

b) No operations shall commence on site in connection with development hereby approved (including any tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening or any other operation involving use of motorised vehicles or construction machinery) until the tree protection works required by the Approved Scheme are in place on site.

c) No excavations for services, storage of materials or machinery, parking of vehicles, deposit or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within an area designated as being fenced off or otherwise protected in the Approved Scheme.

d) The fencing or other works which are part of the Approved Scheme shall not be moved or removed, temporarily or otherwise, until all works including external works have been completed and all equipment, machinery and surplus materials removed from the site, unless the prior approval in writing of the local planning authority has first been sought and obtained.

Reason: To secure the protection throughout the time that the development is being carried out of trees shrubs or hedges growing within or adjacent to the site which are of amenity value to the area, and to allow for verification by the local planning authority that the necessary measures are in place before development and other works commence Relevant policy: Core Strategy policy CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

9. *Access before development* – *No building shall be occupied until the access has been constructed in accordance with the approved plans.*

Reason: In the interests of highway safety and convenience. Relevant policy: Core Strategy policies CP3 & CP6.

10. Parking and turning space to be provided – No part of any building(s) hereby permitted shall be occupied or used until the vehicle parking and turning space has been provided in accordance with the approved plans. The vehicle parking and turning space shall be retained and maintained in accordance with the approved details and the parking space shall remain available for the parking of vehicles at all times and the turning space shall not be used for any other purpose other than vehicle turning.

Reason: To provide adequate off-street vehicle parking and turning space and to allow vehicles to enter and leave the site in a forward gear in the interests of road safety and convenience and providing a functional, accessible and safe development and in the interests of amenity. Relevant policy: Core Strategy policies CP3 & CP6 and Managing Development Delivery Local Plan policy CC07.

11. Cycle parking to be provided – No building shall be occupied until secure and covered parking for cycles has been provided in accordance with the approved drawing(s)/details. The cycle parking/ storage shall be permanently so-retained for the parking of bicycles and used for no other purpose.

Reason: In order to ensure that secure weather-proof bicycle parking facilities are provided so as to encourage the use of sustainable modes of travel. Relevant policy: NPPF Section 9 (Sustainable Transport) and Core Strategy policies CP1, CP3 & CP6 and Managing Development Delivery Local Plan policy CC07.

12. Contamination details - In the event that contamination or hazardous materials such as asbestos is found at any time when carrying out the development hereby approved, it must be reported in writing immediately to the local planning authority. Any subsequent investigation/ remedial/protective works deemed necessary by the local planning authority shall be carried out to agreed timescales and approved by the local planning authority in writing.

Reason: To ensure any contamination on the site is remedied to protect the existing/proposed occupants of the application site and adjacent land. Relevant policy: NPPF Section 15 and Core Strategy policies CP1 and CP3.

13. Oaklands Lane byway - All construction traffic must be kept at all times within the curtilage of the property and must not be parked along the byway. Any damage to the surface of the byway caused by construction traffic must be repaired as soon as possible by the developer, to the satisfaction of the Council.

Any extra surfacing required along the byway for the turning circle at the main entrance is to be installed by and at the expense of the developer, following prior approval of the technical surfacing plans by the Green Infrastructure Team.

Reason: To ensure continued maintenance of an existing pedestrian Public Right of Way. Relevant policy: Core Strategy policies CP1, CP3 and CP6.

14. Construction working hours - No work relating to the development hereby approved, including works of demolition or preparation prior to building operations, shall take

place other than between the hours of 08:00 and 18.00 Monday to Friday and 08:00 to 13.00 Saturdays and at no time on Sundays or Bank or National Holidays.

Reason: In the interests of the amenities of neighbouring occupiers. Relevant policy: Core Strategy policies CP1 and CP3 and Managing Development Delivery Local Plan policy CC06.

15. Restriction of permitted development rights (householder extensions) – *Notwithstanding the provisions of Class A, B, E and F of Part 1 of the Second Schedule the Town and Country Planning (General Permitted Development) (England) Order 2015 (or any Order revoking and re-enacting that Order with or without modification), no outbuildings, enlargement, extensions or alterations permitted shall be carried out without the express permission in writing of the local planning authority.*

Reason: To safeguard the character of the area, neighbouring amenities and protected trees. Relevant policy: Core Strategy policies CP1 and CP3 and Managing Development Delivery Local Plan policies CC03 and TB21.

16. Restriction of permitted development rights (windows) – *Notwithstanding the provisions of the Town and Country Planning, (General Permitted Development) (England) Order 2015 (or any Order revoking and re-enacting that Order with or without modification), no additional windows or similar openings shall be constructed in the first floor level or above in the side facing (flank) elevations of the dwellings hereby permitted except for any which may be shown on the approved drawing(s).*

Reason: To safeguard the residential amenities of neighbouring properties. Relevant policy: Core Strategy policy CP3.

17. Obscure glazing – *The first floor side facing windows of the dwellings hereby permitted shall be fitted with obscured glass and shall be permanently so-retained. These windows shall be non-opening unless the parts of the window which can be opened are more than 1.7 metres above the finished floor level of the room in which the window is installed and shall be permanently so-retained.*

Reason: To safeguard the residential amenities of neighbouring properties. Relevant policy: Core Strategy policy CP3.

18. Restriction of permitted development rights (gates) - *Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 (or any Order revoking and reenacting that Order with or without modification), no gates or barriers shall be erected on the shared vehicular access hereby permitted.*

Reason: To assist in the integration of the development into character and community of the area. Relevant policy: Core Strategy policies CP1 & CP3, and Borough Design Guide Supplementary Planning Document.

19. Restriction of permitted development rights (garages) – *Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 (or any Order revoking and reenacting that Order with or without modification), all garage accommodation on the site identified on the approved plans shall be kept available for the parking of vehicles ancillary to the*

residential use of the site at all times. It shall not be used for any business nor as habitable space.

Reason: To ensure that adequate parking space is available on the site, so as to reduce the likelihood of roadside parking, in the interests of highway safety and convenience. Relevant policy: Core Strategy Policy CP6 and Managing Development Delivery Local Plan policy CC07.

Informatives

1. **Section 106 agreement** – This permission should be read in conjunction with the legal agreement under section 106 of the Town and Country Planning Act dated 19 May 2022 relating to obligations for and mitigation for the Thames Basin Heaths SPA, off site biodiversity net gain, affordable housing contributions, management of the private road and management of the woodland all of which relate to this development.
2. **Community Infrastructure Levy** - The development hereby permitted is liable to pay the Community Infrastructure Levy. The Liability Notice issued by Wokingham Borough Council will state the current chargeable amount. A revised Liability Notice will be issued if this amount changes. Anyone can formally assume liability to pay, but if no one does so then liability will rest with the landowner. There are certain legal requirements that must be complied with. For instance, whoever will pay the levy must submit an Assumption of Liability form and a Commencement Notice to Wokingham Borough Council prior to commencement of development. For more information see - <http://www.wokingham.gov.uk/planning/developers/cil/cil-processes/>
3. **Pre-commencement details** – Where this permission requires further details to be submitted for approval, the information must formally be submitted to the Council for consideration with the relevant fee. Once details have been approved in writing the development should be carried out only in accordance with those details. If this is not clear please contact the case officer to discuss.
4. **Demolition Notice** – The applicant is reminded that a Demolition Notice may be required to be served on the Council in accordance with current Building Regulations and it is recommended that the Building Control Section be contacted for further advice.
5. **Changes to the approved drawings** – The applicant is reminded that should there be any change from the approved drawings during the build of the development this may require a fresh planning application if the changes differ materially from the approved details. Non-material changes may be formalised by way of an application under s.96A Town and Country Planning Act 1990.
6. **Protected species** – This permission does not convey or imply any approval or consent required under the Wildlife and Countryside Act 1981 for protected species. The applicant is advised to contact Natural England with regard to any protected species that may be found on the site.
7. **Discussion** – The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received. This planning application has been the subject of positive and

proactive discussions with the applicant in terms of submitting revised plans to address planning issues related to trees, landscape and highway safety.

The decision to grant planning permission in accordance with the presumption in favour of sustainable development as set out in the NPPF is considered to be a positive outcome of these discussions.

APPENDIX 2 - Parish Council Comments

PLANNING REF : 230283
PROPERTY ADDRESS : The Lodge
: Pinewood Leisure Centre, Old Wokingham Road, Crowthorne, Wokingham, RG40 3AQ
SUBMITTED BY : Wokingham Without Parish Council
DATE SUBMITTED : 28/02/2023

COMMENTS:

Without prejudice to our other concerns, Wokingham Without Parish Council (WWPC) welcomes the proposal for smaller houses which responds to local demand. WWPC remains concerned about the impact of

increased vehicle traffic, with associated risks to pedestrians in the vicinity of Hatch Ride School, particularly at pick-up and drop-off times. WWPC is concerned that the development may place mature trees under threat, due to overshadowing of one or more gardens. WWPC requests that WBC looks carefully at the proposed biodiversity gain, since the new private land associated with additional dwellings may make it difficult to achieve and control.

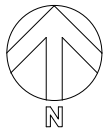
WWPC requests that, in the event of approval of this application, the following issues are dealt with by condition:

1. Approved Construction management plan including:

- a). Parking of all contractors' vehicles on site (not Oaklands Lane).
- b). Deliveries to be avoided outside school drop-off, pick-up times.
- c). Adequate provision for washing construction vehicles and street cleaning.

2. During the construction period, regular liaison with local stakeholders, school and parish council to deal with issues speedily.

Additionally, the Council recommends that the remaining mature trees on the site continue to be protected by TPO, with a new review if necessary.



Ordnance Survey
Licence No. OI1551003

Rev	Date	Details
-	-	-

PLANNING

ark tec Architectural Consultancy Lodge Farm Barn Elvetham Park Estate Fleet Road, Hartley Wintney Hampshire, RG27 8AS t: 01252 845335 f: 01252 845515 e: info@arktec.co.uk w: www.arktec.co.uk	Client: PALATINE HOMES
	Project: OAK APPLES, OAKLANDS LANE CROWTHORNE
Drawing: LOCATION PLAN	
Scale: 1:1250 @ A4	Date: 22/12/22

Notes:

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P22/08/200	-

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KEY

 Previously approved planning application reference 220358

 Recently approved planning application reference 222648

Notes:

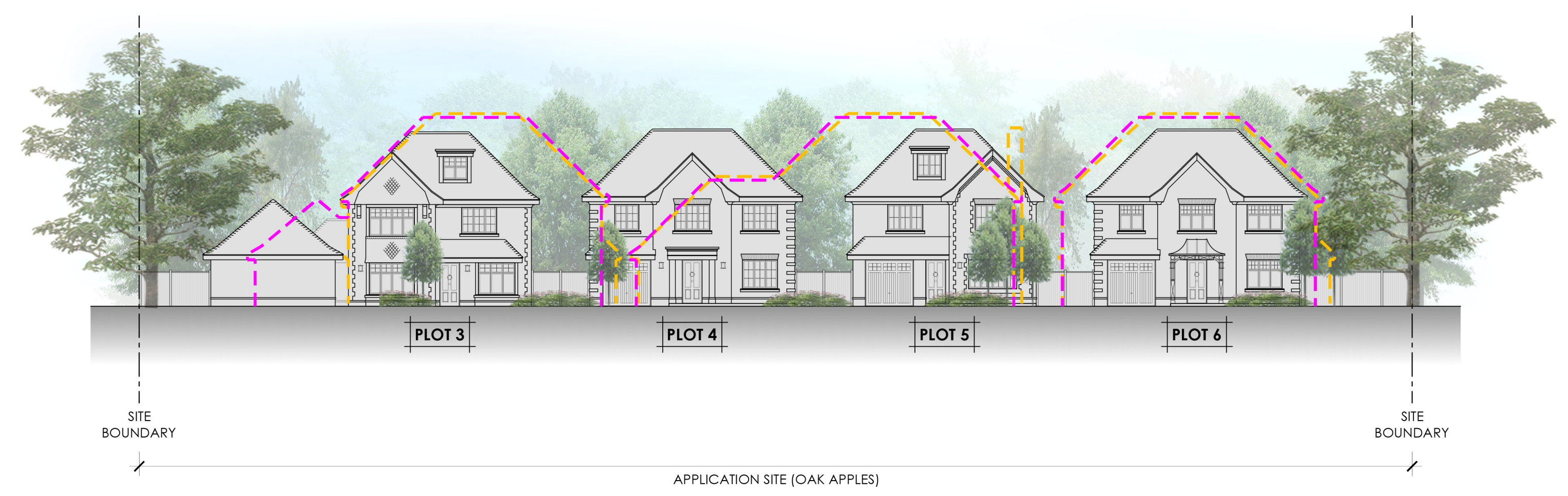
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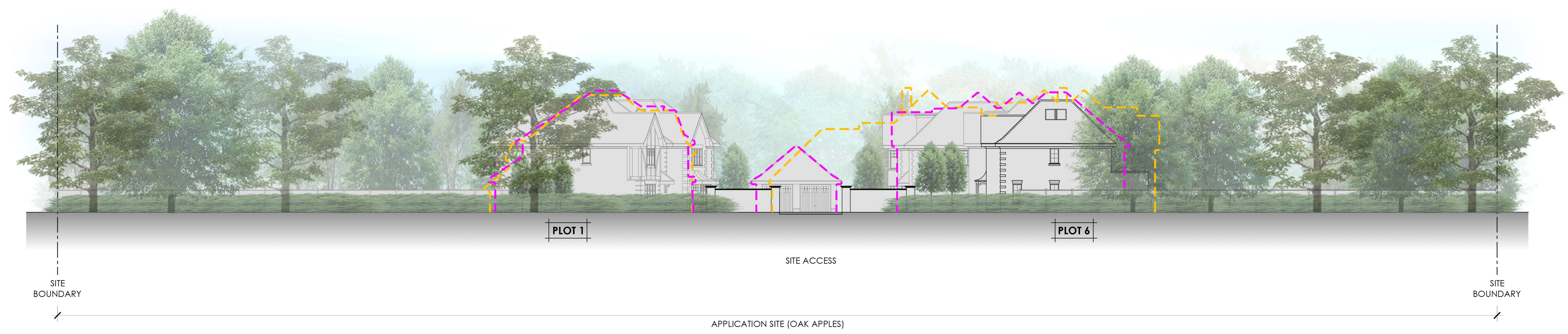
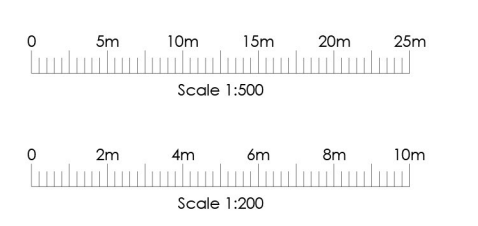


STREET SCENE ELEVATION A-A
Scale 1:200 @ A1



KEY
Scale 1:500 @ A1

Ordnance Survey
Licence No. 011551003



STREET SCENE ELEVATION B-B (OAKLANDS LANE)
Scale 1:200 @ A1

Rev	Date	Details
A	16/03/23	Updated in accordance with Highway Officers advice.

PLANNING

ark|tec Client: PALATINE HOMES
Architectural Consultancy Project: OAK APPLES, OAKLANDS LANE CROWTHORNE

Lodge Farm Barn
Elvetham Park Estate
Fleet Road, Hartley Wintney
Hampshire, RG27 8AS Drawing: STREET SCENE ELEVATIONS

t: 01252 845335
f: 01252 845515
e: info@arktec.co.uk
w: www.arktec.co.uk Scale: 1:200 @ A1 Date: 22/12/22

Drawing Number: P22/08/S/202 Revision: A

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