



FRAYS AVENUE, WEST DRAYTON

FLOOD RISK ASSESSMENT

REPORT NO. 23000-FCE-XX-XX-RP-D-0001

PROJECT NO. 23000

JANUARY 2023

DOCUMENT CONTROL

REV	ISSUE PURPOSE	AUTHOR	CHECK	APPROVE	DATE
P01	Issued for information	DR	CR	DR	09.01.23

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Exception Test

- 2.4. Table 3 of the PPG, Table 2.1 below, indicates that the proposed Home office/ gym uses are Less vulnerable and appropriate in Flood Zone 3. Therefore, the exception test is not required.

Flood risk vulnerability classification (see table 2)		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood zone (see table 1)	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a	Exception Test required	✓	×	Exception Test required	✓
	Zone 3b functional floodplain	Exception Test required	✓	×	×	×

Key: ✓ Development is appropriate.
× Development should not be permitted.

Table 2.1 Extract from the PPG - Table 3: Flood Risk Vulnerability

- 2.5. Therefore, the residual risk of flooding from fluvial sources is assessed as low. Details of flood protection and mitigation from fluvial flooding is outlined in Section 3.0.

Pluvial Flooding

- 2.6. Based on the EA Flood risk from surface water map, the site appears to be at very low risk of surface water flooding (between 0.1% and 1% AEP). Refer to Figure 2.2 below.

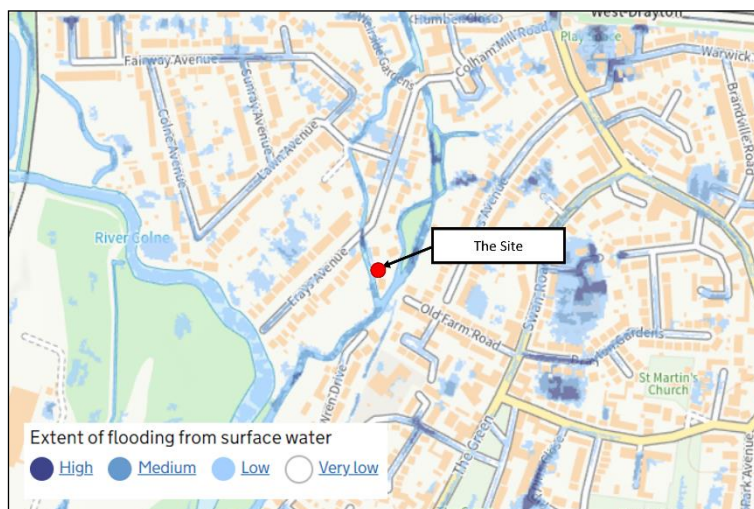


Figure 2.2: Environment Agency's Flood risk from surface water

Groundwater Flooding

- 2.7. Based on BGS data and DEFRA's Magic Map application, the site appears to have Medium-Low vulnerability to groundwater. Refer to **Figure 2.3** below.



Figure 2.3: Groundwater Vulnerability Map

- 2.8. Based on the West London Strategic Flood Risk Assessment online data the local area appears to have a $\geq 75\%$ Susceptibility to Groundwater Flooding. Refer to **Figure 2.4** below.

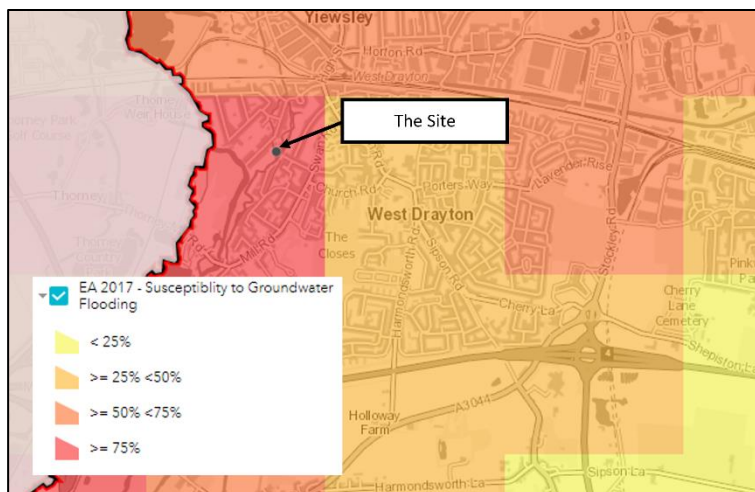


Figure 2.4: Susceptibility to Groundwater Flooding

- 2.9. The proposed development does not include any basements and dewatering of excavations will be managed in line with best practice during construction. Therefore, the risk of groundwater flooding is assessed as low.

Sewer surcharge

- 2.10. Based on the West London Strategic Flood Risk Assessment online data and Thames Water 2017 – Sewer Flooding Records, the site appears to be at low risk of flooding from sewer surcharge. Therefore, the risk of flooding from sewer surcharge is assessed as low.

Artificial Sources

- 2.11. Based on the EA Long term flood risk information the site is located in an area at risk of flooding from reservoirs or artificial sources. Refer to **Figure 2.5** below.

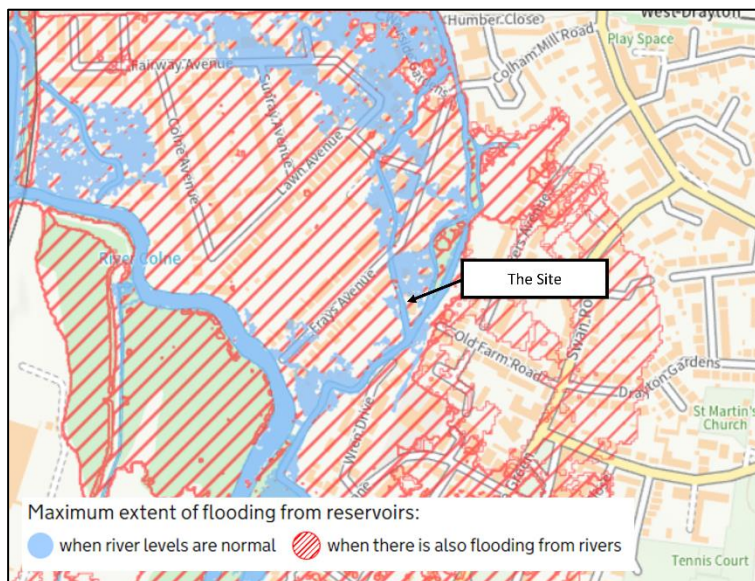


Figure 2.5 Flooding from reservoirs

- 2.12. Flooding from reservoirs is extremely unlikely, and there has been no loss of life in the UK from reservoir flooding since 1925. Therefore, the risk of flooding from reservoirs is assessed as low.

3.0 FLOOD RISK MANAGEMENT

- 3.1. The residual risk of fluvial flooding has been alleviated through considering a number of mitigation measures as part of the development proposals.

Safe access & egress

- 3.2. The instructions of the Emergency Services should always be followed during a flood event. If time does not allow for safe access and egress, residents/visitors should remain on site and seek refuge.
- 3.3. If it is safe to travel, residents and visitors could travel north on Frays Avenue towards Colham Mill Road to seek refuge outside of the floodplain. The indicative evacuation route is illustrated in **Figure 3.1** below.

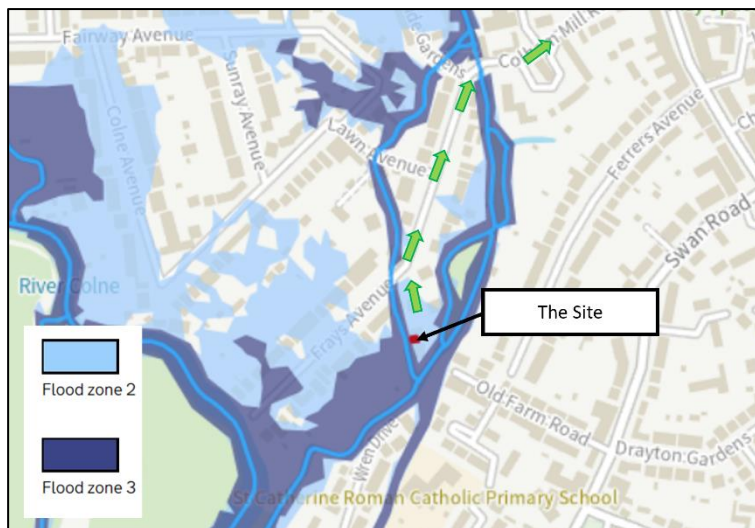


Figure 3.1 Safe access & egress

Finished Floor Levels

- 3.4. The proposals will be designed so that finished floor levels within the home office will be set no lower than existing levels on the site, with flood resistance and resilience measures incorporated within the design.

Flood Warnings

- 3.5. The site is located in a Flood Warning Area, as shown in **Figure 3.2** below.



Figure 3.2: EA Flood Warning Areas

- 3.6. The building occupiers will need to register with the Environment Agency's Floodline Warnings Direct. This is a free service provided by the Environment Agency, which gives advanced notice of potential flooding. Registration is either through the Environment Agency's website or by calling the Floodline / Environment Agency on 0345 988 1188.

Flood Resistance and Resilience

- 3.7. The proposals will incorporate the flood resistance and resilience measures outlined in **Table 3.1**, to protect the building and its occupants against the risk of flooding and minimise the potential damage that could be caused by flooding.






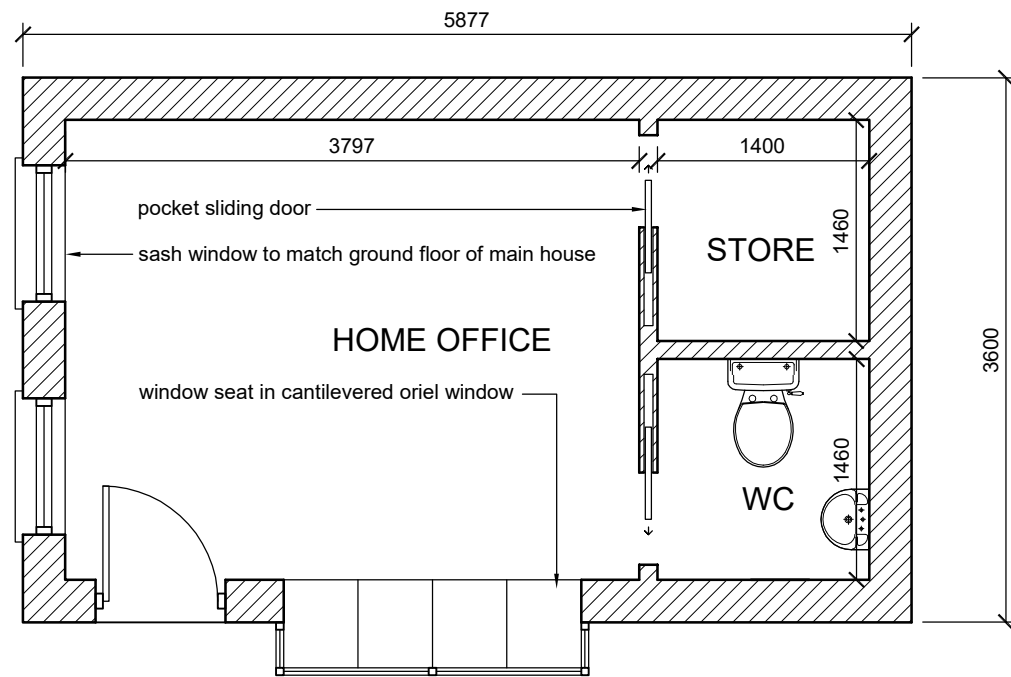
Raising electrical sockets as high as practical, minimum 450mm above FFL at ground floor.	
Using plastic / water resistant flood doors.	
Installing airbrick covers.	
Using a waterproof mortar, for the lower courses of brickwork.	
Non-return valves can be retro-fitted to protect from sewer surcharge flood events.	

Table 3.1: Flood resistance and resilience measures

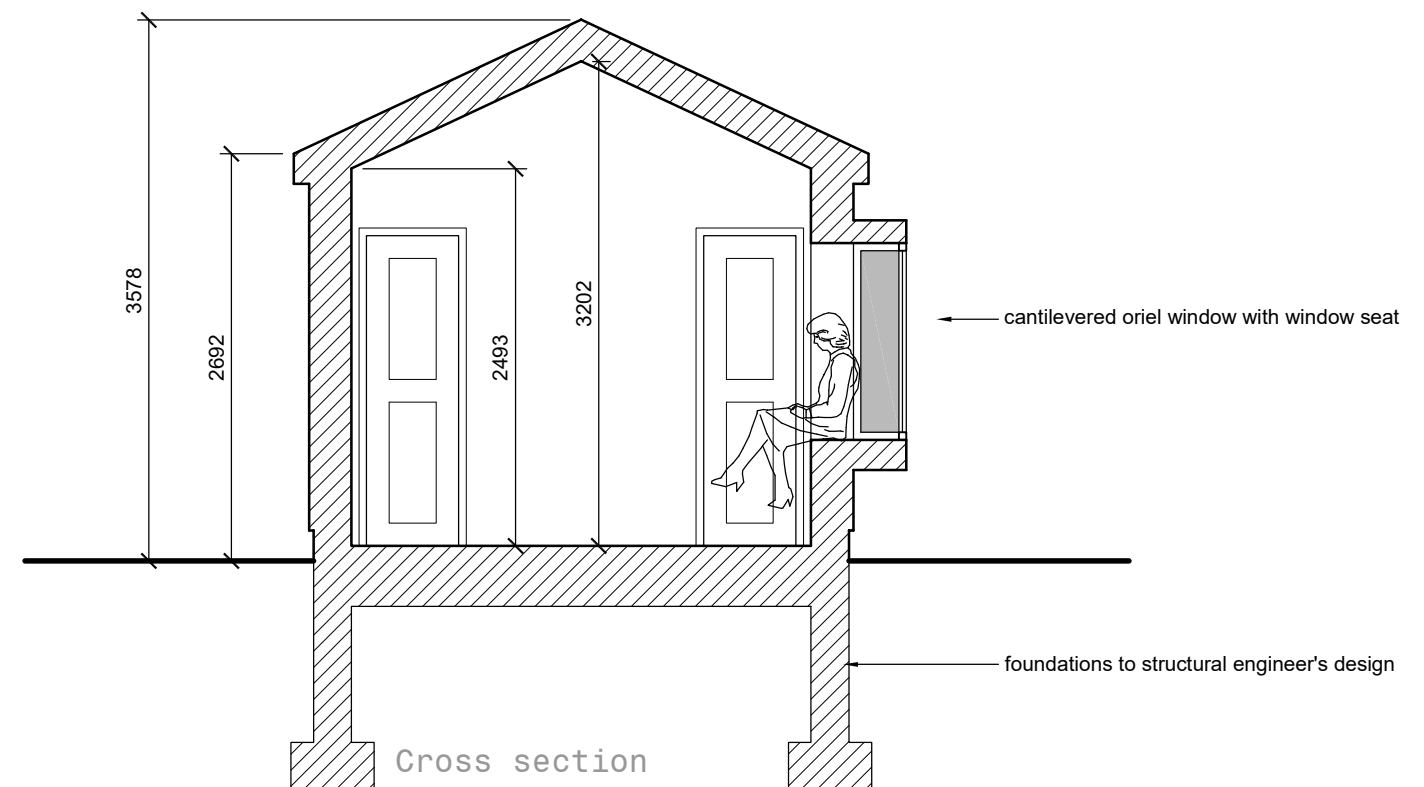
4.0 CONCLUSIONS

- 4.1. This report has been prepared to support the planning application for the development proposals at 23A Frays Avenue, West Drayton, UB7 7AF.
- 4.2. Based on the Environment Agency's (EA) Flood map for planning the site appears to be located in Flood Zone 2 and3 Land in Flood Zone 3 is defined as having a 1 in 100 or greater annual probability of river flooding ($\geq 1\%$) or having a 1 in 200 or greater annual probability of sea flooding ($\geq 0.5\%$).
- 4.3. The Site is assessed as being at "Low" risk of flooding from surface water, groundwater, artificial sources, and sewer surcharge.
- 4.4. The instructions of the Emergency Services should always be followed during a flood event. If time does not allow for safe access and egress, residents/visitors should remain on site, and seek refuge on site. the top floor of the main building. If it is safe to travel, residents and visitors could travel north on Frays Avenue towards Colham Mill Road to seek refuge outside of the floodplain.
- 4.5. Finished floor levels for the proposed outbuilding will be set no lower than existing levels on site.
- 4.6. Further flood resistance/resilience measures could be implemented where appropriate/ feasible, including but not limited to: paint that can be easily cleaned in the event of a flood; flood proof doors, and ventilation covers.
- 4.7. In conclusion, this FRA demonstrates that the proposals are consistent with the aims of the NPPF and the Planning Practice Guidance to the NPPF along with the aims of the Local Flood Risk Management Strategy. The Site will not be at significant risk of flooding or increase the flood risk to others.

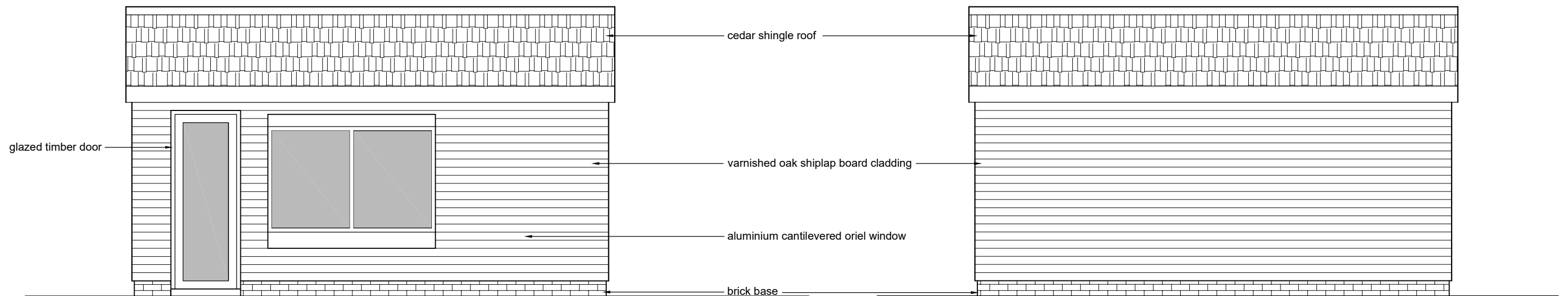
APPENDIX A – PROPOSED DEVELOPMENT PLANS



Plan



Cross section



Side elevation 1

Side elevation 2

PROJECT: 23A FRAYS AVENUE, WEST DRAYTON UB7 7AF
DRAWING TITLE:

Proposed home office plans

SCALE: 1:50@A3 DRAWING NUMBER: P-12A



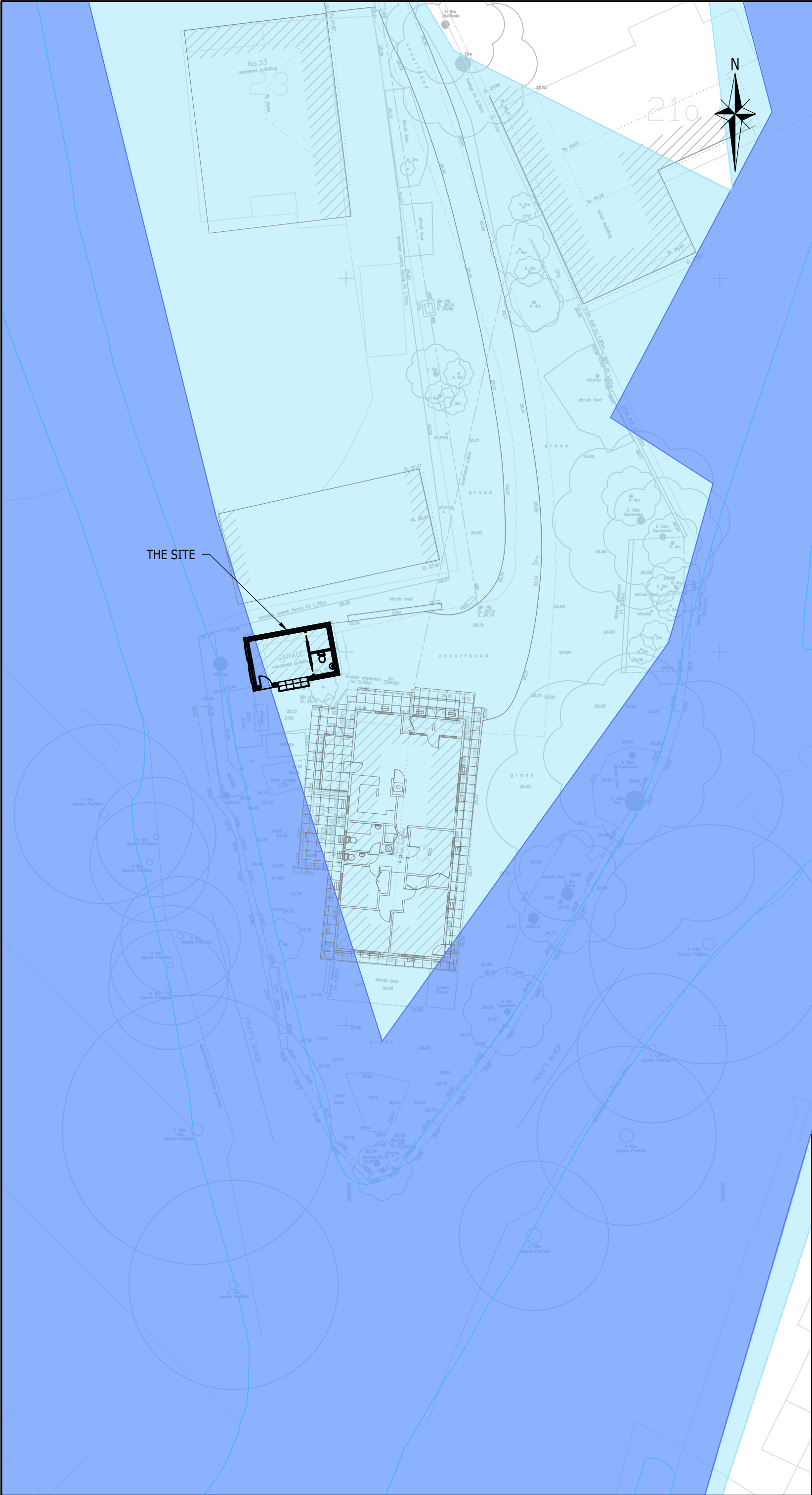
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APPENDIX B – FLOOD MAP FOR PLANNING



- NOTES
- THIS DRAWING IS INDICATIVE AND TO BE READ IN CONJUNCTION WITH THE FLOOD RISK ASSESSMENT.
 - DO NOT SCALE FROM THIS DRAWING. TO CHECK THAT THIS DRAWING HAS BEEN PRINTED TO THE INTENDED SCALE THIS BAR SHOULD BE 50mm LONG @ A1 OR 25mm LONG @ A3.
 - THIS DRAWING HAS BEEN BASED ON FLOOD MAP FOR PLANNING AVAILABLE FROM DEFRA DATA SERVICES PLATFORM (<https://environment.data.gov.uk/>)

KEY

FLOOD ZONE 2

FLOOD ZONE 3

FOR INFORMATION ONLY

P01	FOR INFORMATION	DR	CR	DR	09.01.23
Rev	Description	Dm	Chk	App	Date
<div><div><div></div><div></div><div></div></div><div>FERNBROOK</div><div>CONSULTING ENGINEERS</div></div> <div><div>The Finsbury Business Centre</div><div>40 Bowling Green Lane</div><div>London</div><div>EC1R 0NE</div><div>info@ferbrook.co</div></div>					
Client					
MR B. WORTHINGTON					
Project Title:					
23A FRAYS AVENUE, WEST DRAYTON					
Drawing Title:					
INDICATIVE FLUVIAL FLOOD MAP					
A3 Scale	Date	Designed by			
1:250	JAN 20223	DR			
Drawn by	Checked by	Approved by			
DR	CR	DR			
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					P01