



Appendix F

Drainage and maintenance

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F2 Drainage layout C-8011 S2 P2	345
F3 Drainage and highway details C-8201 S2 P1	346

Original source documents follow. Page references are positions in this combined PDF.

STAFF ACCOMMODATION AT RUCKFORD HOUSE, HURSTPIERPOINT COLLEGE

FLOOD RISK ASSESSMENT AND DRAINAGE STRATEGY

JULY 2025



Ref: 12337/17/FRA



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Client: Hurstpierpoint College

Prepared by	Checked by	Approved by	Revision
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1.0 INTRODUCTION

- 1.1 HOP Consulting Ltd (HOP) has been instructed by Hurstpierpoint College (HPPC) to undertake a Flood Risk Assessment and Drainage Strategy report for the proposed staff accommodation development at the Ruckford House site within HPPC grounds, Hurstpierpoint.
- 1.2 The development proposal is to clear the development site, and to construct 4No semi-detached properties (2No separate buildings), for the housing of college staff. Additionally, improved vehicle and pedestrian routes and expanded car parking facilities are proposed.
- 1.3 The flood risk element of this report has been prepared in accordance with the principles of the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance (PPG) for Development and Flood Risk. The purpose of this report is to demonstrate the risk of flooding from all sources, and that foul and surface water discharge from the proposed development can be managed effectively and in accordance with the statutory authorities' requirements.
- 1.4 Details of the development proposals have been provided by Building Solutions Consultants Ltd (BSC) to show the extent of the development and confirm the existing site layout. Information in this report has been received from a number of external parties and HOP does not accept liability for the accuracy of this information. Should there be material change in the development proposals, this report will need to be revised accordingly.

2.0 SITE DESCRIPTION AND LOCATION

- 2.1 The proposed buildings and parking area, henceforth referred to as the development site, are located approximately 1.5km northeast of the village of Hurstpierpoint in West Sussex and 300m northeast of the main HPPC site (shown in Figure 2.1). The surrounding land use is predominantly agricultural with school playing fields bordering the site to the north, and two existing school-managed residential buildings to the southwest and southeast.
- 2.2 The development site is currently occupied by a carport, rough surfacing for parking formed of rough asphalt, compacted aggregate and soft landscaping/vegetation.
- 2.3 The site address is: Ruckford House, Malthouse Lane, Hurstpierpoint, West Sussex, BN6 9JX. The site's grid reference is: 529182E, 117808N.

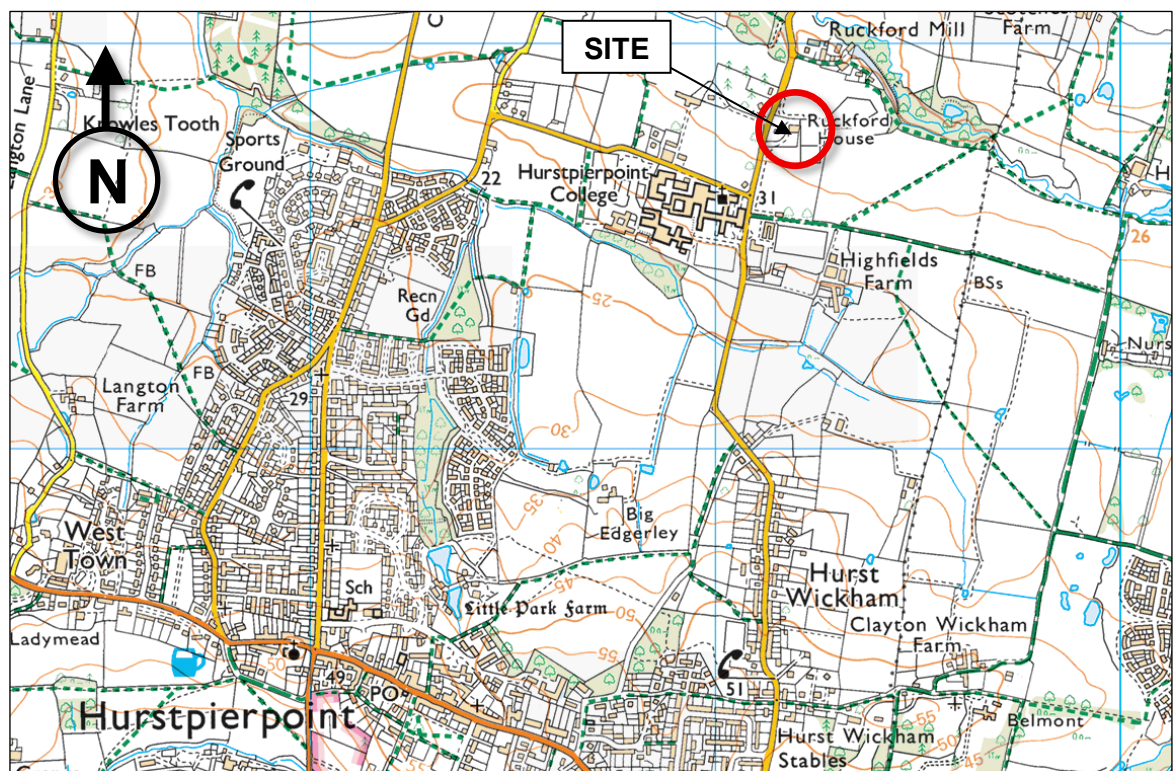


Figure 2.1 Site Location Plan

- 2.4 The surrounding land falls gently away to the north and south of the development site. Based on topographical survey data, the maximum elevation to the south of the proposed buildings is approximately 29.0mAOD (above Ordnance Datum), falling to approximately 28.4mAOD at the northern boundary.
- 2.5 The British Geological Survey (BGS) online mapping shows the site to be underlain by the Weald Clay Formation, with superficial deposits of River Terrace Deposits consisting of sand and gravel. Environment Agency (EA) online mapping, accessed via the Magic Map application, shows the site is not located within a groundwater Source Protection Zone (SPZ).

3.0 DEVELOPMENT PROPOSALS

- 3.1 The development proposals are to construct 4 No semi-detached properties for the housing of college staff as shown in Figure 3.1. Additionally, the existing vehicle and pedestrian routes and car parking facilities are to be improved.
- 3.2 The total development area is to include the proposed buildings, external areas surrounding Ruckford House and the access drive leading from Malthouse Lane.

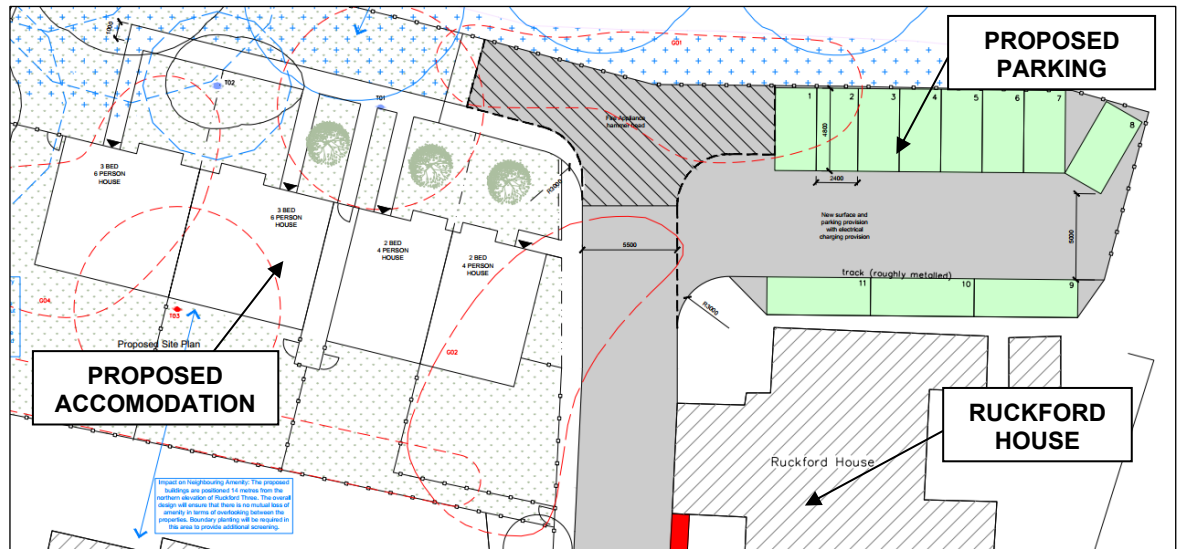


Figure 3.1 Extract of proposed development site layout (BSC)

- 3.3 The site access improvements are to consist of a widening of the entrance bellmouth within the boundary of HPPC land and the addition of a passing place at the bend in the drive. These improvements are to provide a minimum 3m road width, facilitating improved fire vehicle access. A pedestrian footpath is to be added approximately following the road, improving safety by separating pedestrians and vehicles. The access proposals are illustrated in Figure 3.2 below. Further architectural proposals for the full site are included in Appendix A.

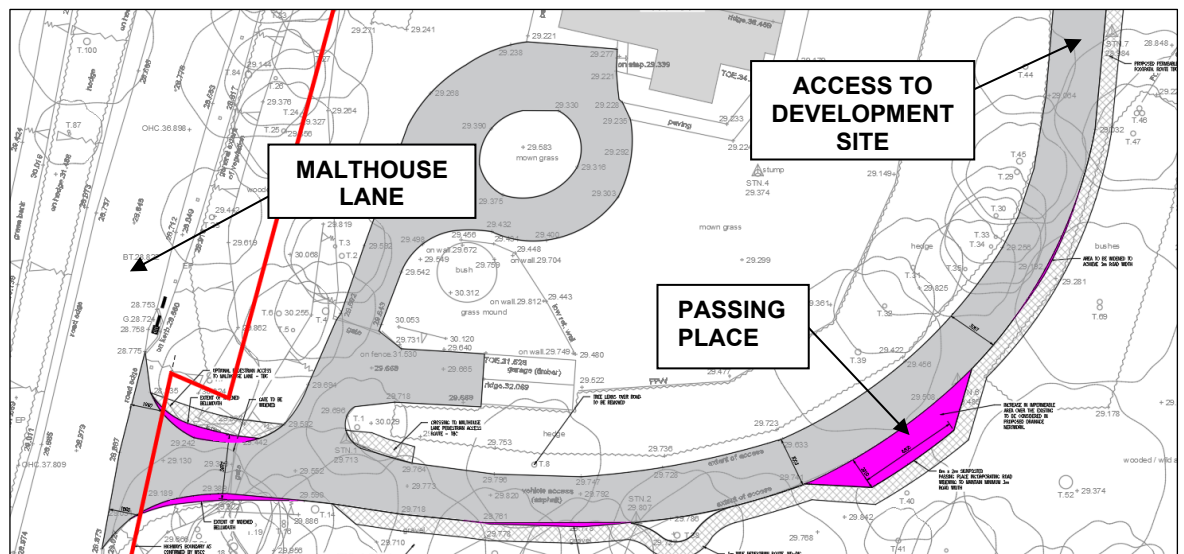


Figure 3.2 Extract of proposed access enhancements (HOP)

4.0 DRAINAGE STRATEGY

FOUL WATER

- 4.1 The two existing buildings, Ruckford House and Ruckford Three, discharge foul water to a private foul pump station located to the northeast of the development site. The connection from Ruckford House was confirmed during a site walkover by HOP on 14th May 2025. The connection from Ruckford Three was verbally confirmed by the HPPC estate manager following previous works in the area carried out by the college.
- 4.2 The existing pump station pumps flows to the private foul drainage network serving the main HPPC site before discharging to the public foul sewer south of HPPC. The pump station also receives a pumped inflow from further HPPC owned properties located approximately 190m to the northeast of the site. The pump station was inspected by CountyClean Environmental Services Ltd in April 2025 and was confirmed to be in full working order. The pumped private foul discharges to Southern Water MH 9402 approximately 500m south of the site.
- 4.3 The Southern Water guidance has been used to calculate the proposed peak foul flow from the proposed new units:

General housing peak foul flow		
Number of properties, N	4	Units
Occupancy, O	5	Persons / unit
Per capita flow, G (L/D)	125	litres / head / day
Population, P (N x O)	20	People
Storm duration, SD	300	Minutes
Peaking Factor, PF	2	
Peak Flow	0.061	l/s

For misconnection of surface water into foul		
Approximate Site Area, A	1000	m ²
Development density, DD (N/A/10000)	160	Units / Ha
Area allowance per property	0.6	m ²
Area misconnected	2.4	m ²
Peak flow	0.023	l/s

TOTAL PEAK FOUL FLOW	0.084	l/s
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Table 4.1 proposed peak foul flow

- 4.4 Site observations and a review of the topographic survey identified 101m² of external surfacing north of Ruckford House that is currently drained via a gully to the foul drainage network. The proposals are for this area to be resurfaced and the runoff to be managed within the surface water drainage system, thereby removing it from the foul network. The flow rate for the 1-year return period storm event was calculated in Causeway Flow and identified a 1.2l/s peak flow rate for this 101m² catchment discharging to the foul sewer. These calculations can be found in Appendix D. The proposals are therefore considered to generate a betterment to the existing pump arrangement.

SURFACE WATER

Existing

- 4.5 Surface water from the two existing building's roof areas and the 101m² external area, discussed in Section 4.4, is discharged to the foul drainage network by conventional gullies, gutters and downpipes. The existing carport and the majority of external hardstanding, including the access road, is not formally drained and discharges onto the adjacent landscaping where it is assumed to infiltrate into the ground.

Proposed

- 4.6 To mitigate future surface water flood risk, a sustainable drainage (SuDS) strategy has been developed, utilising infiltration.
- 4.7 Infiltration testing was undertaken in general accordance with BRE365 by Soak Services in June 2025. During this testing, a deeper trial pit encountered groundwater at 2.2m deep. Shallow infiltration testing (0.5m deep) in the location of the proposed car park identified an infiltration rate of 3.968×10^{-6} m/s which is considered suitable for a permeable paving based infiltration sustainable drainage (SuDS) scheme to manage surface water runoff. A factor of safety (FoS) of 3 is normally appropriate for an infiltration scheme of this scale, however, a FoS of 5 has been applied to the proposed calculations to reflect expected wetter conditions in winter months. Infiltration testing results are included in Appendix C.
- 4.8 It is proposed to utilise new infrastructure to collect surface water runoff from roofs and impermeable external areas via downpipes, permeable paving, and below ground pipework before discharging to ground. Infiltration will be the ultimate means of managing runoff at source. This will provide an improvement over the existing arrangement, which is either unmanaged or drains to the foul drainage system. This is also the preferred surface water management method defined by the SuDS hierarchy in the CIRIA SuDS Manual, and Building Regulations Part H.
- 4.9 The new external hard surfacing is to be permeably paved. The 452m² permeably paved parking area is proposed to incorporate a deepened sub-base allowing it to accommodate additional flows from the proposed building's roof areas. The access track is to be maintained, with less than 7m² of additional surfacing required to widen the drive to 3m along its length. It is proposed to allow these minimal additional areas to discharge onto the adjacent soft landscaping. The proposed passing place is to be of permeable construction, reflecting the existing soft landscaping it will be located within.
- 4.10 All proposed footpaths are to be of permeable construction, reflecting the existing predominantly soft landscaping in these areas. 'No-dig' construction methods will be employed where surfacing lies within tree root zones.
- 4.11 Roof runoff will be collected via guttering, which will drain to the below ground drainage, passing through a concrete catch pit manhole to minimise sedimentation before discharging into the permeable sub-base of the car park.
- 4.12 The proposed surface water drainage layout and catchment and exceedance flow plan are shown in Appendix B.
- 4.13 In accordance with the National Standards for SuDS (NSS), the surface water drainage system should be designed so that flooding does not occur on any part of the site for a 1 in

30 year rainfall event; and so that flooding does not occur during a 1 in 100 year event in any part of a building or in any utility plant susceptible to water.

- 4.14 A 475mm deep permeable sub-base with a minimum 30% voids ratio is proposed for the car parking area. Through utilising these infiltration SuDS to accommodate the 1 in 100 year rainfall event (+45% allowance for climate change), it can be shown that no part of the site is vulnerable to surface water flooding from the managed on-site runoff. Calculation output for the permeable paving-based infiltration scheme is included in Appendix D.
- 4.15 As all runoff is proposed to be managed at source through infiltration SuDS, there will be no surface water runoff from the proposed development once mitigation features are implemented.

Surface Water Runoff Quality

- 4.16 The preferred solution for managing surface water runoff is to utilise infiltration SuDS techniques, with permeable paving located to the north of the site. Surface water will therefore be discharged to the underlying clay bedrock geology, which is classified by the EA as a Secondary A Aquifer. Consideration must therefore be given to water quality treatment measures, to ensure the protection of controlled waters.
- 4.17 Both the SuDS Manual (CIRIA C753) and guidance from the EA, as outlined in the recently withdrawn Pollution Prevention Guidance 3 (PPG3), state that rainwater runoff from roof areas is considered to be at very low risk of containing contaminants and does not require any pollution control to be implemented prior to discharge, outside of the removal of gross solids and sediments only.
- 4.18 Reference to Table 26.2 of the SuDS Manual shows that the proposed land use comprises residential car parks and low traffic roads and that these represent a low risk of pollution hazard level. The guidance for this level of risk is to use the simple index approach to pollution control requirements for discharging to surface water sewers.
- 4.19 The notes to Table 26.2 state that extra measures may be required for discharges to protected resources, the guidance clarifies that in England and Wales, protected groundwater resources are represented by the catchment of a SPZ 1 classification. As discussed in Paragraph 2.5, the development site does not lie within an SPZ and therefore no additional pollution control measures are required in this regard.
- 4.20 The simple index approach is outlined in the SuDS Manual and provides pollution hazard indices for different land use classifications. An extract applicable to the development site is provided in Table 4.2. This shows pollution hazard indices for; total suspended solids (TSS) 0.5; Metals 0.4; and Hydrocarbons 0.4.

Pollution hazard indices for different land use classifications				
Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydro-carbons
Residential roofs	Very low	0.2	0.2	0.05
Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4

Table 4.2 Extract of table 26.2 from the SuDS Manual.

- 4.21 These are to be compared against mitigation indices for individual SuDS components, as provided in Table 26.4 of the SuDS Manual. An extract showing the mitigation indices for SuDS components is provided in Table 4.3.

Indicative SuDS mitigation indices for discharges to groundwater			
Characteristics of the material overlying the proposed infiltration surface, through which the runoff percolates ¹	TSS	Metals	Hydrocarbons
A layer of dense vegetation underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³	0.6 ⁴	0.5	0.6
A soil with good contaminant attenuation potential ² of at least 300 mm in depth ³	0.4 ⁴	0.3	0.3
Infiltration trench (where a suitable depth of filtration material is included that provides treatment, ie graded gravel with sufficient smaller particles but not single size coarse aggregate such as 20 mm gravel) underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³	0.4 ⁴	0.4	0.4
Constructed permeable pavement (where a suitable filtration layer is included that provides treatment, and including a geotextile at the base separating the foundation from the subgrade) underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³	0.7	0.6	0.7
Bioretention underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³	0.8 ⁴	0.8	0.8
Proprietary treatment systems ^{5, 6}	These must demonstrate that they can address each of the contaminant types to acceptable levels for inflow concentrations relevant to the contributing drainage area.		

Table 4.3 Extract of table 26.4 from the SuDS Manual.

- 4.22 The SuDS Manual also allows for proprietary systems such as oil interceptors, smart filters, membranes and silt/debris traps to be utilised to minimise the risk of watercourse pollution. These products must demonstrate that they can address each of the contaminant types as

described in Table 4.3. The proposals include permeable paving which sufficiently mitigates the pollution risk without the need for proprietary petrol interceptors.

SuDS Maintenance and Management Plan

- 4.23 A maintenance regime has been established for the components within the drainage system, to ensure its ongoing functionality. Table 32.1 of the SuDS Manual shows necessary maintenance activities for different SuDS components.
- 4.24 A maintenance schedule for the drainage components including SuDS features is presented in Appendix E.

TABLE 32.1 Typical key SuDS components operation and maintenance activities (for full specifications, see Chapters 11–23)

Operation and maintenance activity	SuDS component											
	Pond	Wetland	Detention basin	Infiltration basin	Soakaway	Infiltration trench	Filter drain	Modular storage	Pervious pavement	Swale/bioretention/trees	Filter strip	Green roofs
Regular maintenance												
Inspection	■	■	■	■	■	■	■	■	■	■	■	■
Litter and debris removal	■	■	■	■	□	■	■	□	■	■	■	□
Grass cutting	■	■	■	■	□	■	■	□	□	■	■	■
Weed and invasive plant control	□	□	□	□	■	□	□	□	□	■	■	■
Shrub management (including pruning)	□	□	□	□	■	■	■	■	□	□	□	■
Shoreline vegetation management	■	■	□	■	■	■	■	■	■	■	■	■
Aquatic vegetation management	■	■	□	■	■	■	■	■	■	■	■	■
Occasional maintenance												
Sediment management ¹	■	■	■	■	■	■	■	■	■	■	■	■
Vegetation replacement	□	□	□	□	■	■	■	■	■	□	□	■
Vacuum sweeping and brushing	■	■	■	■	■	■	■	■	■	■	■	■
Remedial maintenance												
Structure rehabilitation /repair	□	□	□	□	□	□	□	□	□	□	□	□
Infiltration surface reconditioning	■	■	■	■	■	■	■	■	■	■	■	■

Table 4.4 – Extract of Table 32.1 of the SuDS Manual summarising maintenance activities

5.0 FLOOD HAZARD AND PROBABILITY

- 5.1 Flood risk data for the site has been obtained from the online EA Flood Map, an extract of which is shown in Figure 5.1. The mapping shows the site to be located entirely within Flood Zone 1. The PPG to the NPPF defines Flood Zone 1 as having less than 1:1000 annual probability of river or sea flooding (less than 0.1%).

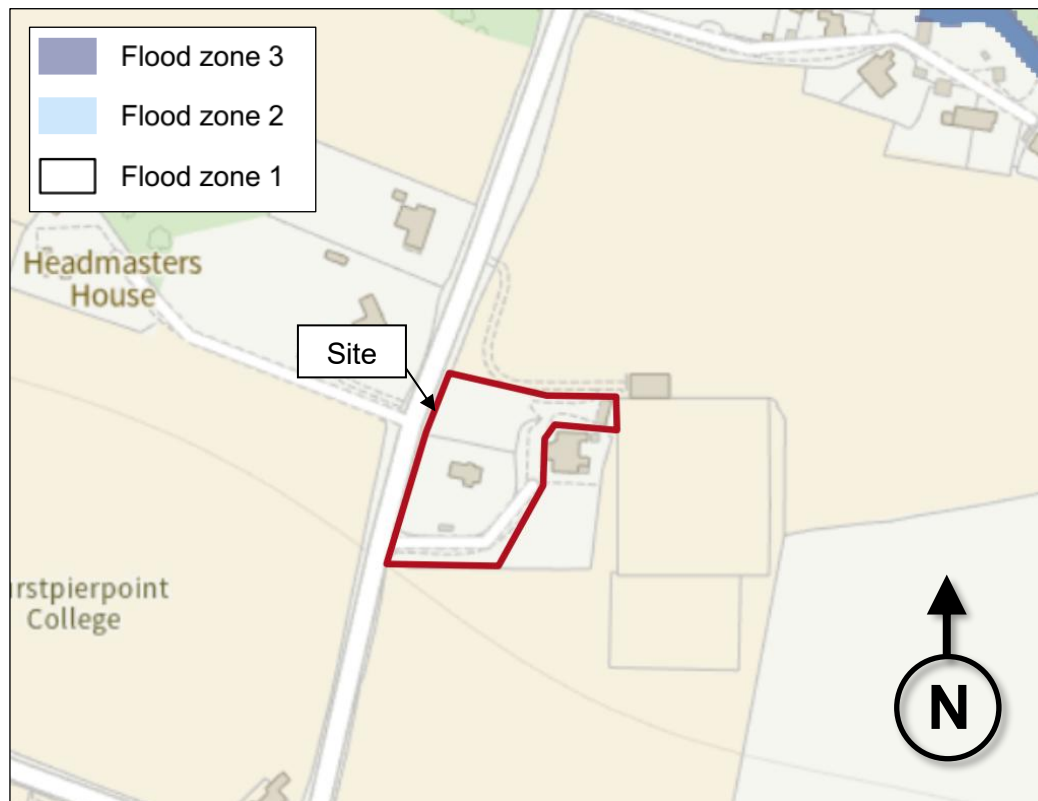


Figure 5.1 Extract from EA Online Flood Zone Map

- 5.2 Table 2 of the NPPF classifies all forms of development to be appropriate for Flood Zone 1.

Surface Water Flooding

- 5.3 The EA has produced surface water flood maps which show no areas of surface water flooding within the site boundary. An area of localised surface water flooding is identified in Malthouse Lane to the west of the site. The road is at a lower elevation to the site with runoff contained within the highway boundary. The site walkover identified this stretch of road to be served by highway gullies that drain into the highway ditch network to the northwest of the site.

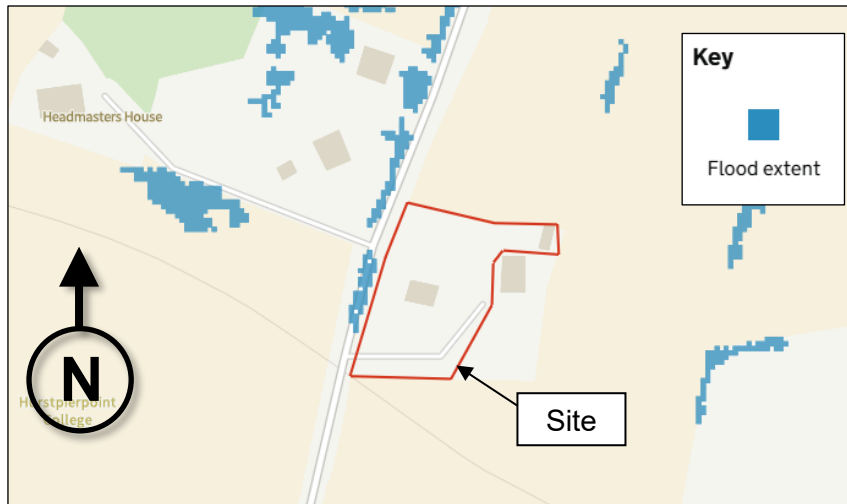


Figure 5.2 Extract from EA Surface Water Flood Map (100 year event)

- 5.4 Surface water flood risk will be mitigated by the inclusion of a new SuDS system, as described in Section 4.0, which will actively manage surface water at source ensuring there is no increase in risk to site users and neighbouring or downstream properties. Buildings should be set 150mm above surrounding ground levels. Exceedance event conveyance routes will be engineered into the final levels scheme with runoff conveyed away from the parking and proposed buildings northwards towards the less vulnerable area in the playing fields to the north of the farm.

Sewer Flooding

- 5.5 Within the Mid Sussex District Council (MSDC) Strategic Flood Risk Assessment (SFRA), there are no historical records of known highway or sewer flooding affecting the site. The existing private foul pump station is situated at a lower elevation than the proposed buildings with levels falling gently away directing runoff to the playing fields to the north should a flood event occur from this location. Risk of sewer flooding affecting the site is considered to be low.

Reservoir Flooding

- 5.6 The online EA maps show the site to be outside any flood risk area associated with reservoir flooding, therefore the risk from this source is considered to be very low.

Groundwater Flooding

- 5.7 The MSDC SFRA notes that the majority of the Mid Sussex area is considered to have low potential for groundwater flooding as a result of underlying geology. Groundwater concerns are most prevalent in the south of the district where permeable chalk geology can be found. The site is underlain by a clay bedrock suggesting a limited susceptibility to groundwater flooding. The site is located on a crest of surrounding levels so that any emergence of groundwater would be directed overland to the north and south, away from the site. Groundwater flood risk is therefore considered to be low.

Climate Change

- 5.8 Increased rainfall intensity, longer storm durations and rising sea levels are all attributed to global climate change. An allowance for an additional 45% rainfall intensity is taken in to account in the design of surface water management for residential developments. The new surface water drainage infrastructure should be designed to manage the 1 in 100 year storm event, plus a 45% allowance for climate change, in accordance with the SFRA and the NSS.

Residual Risk

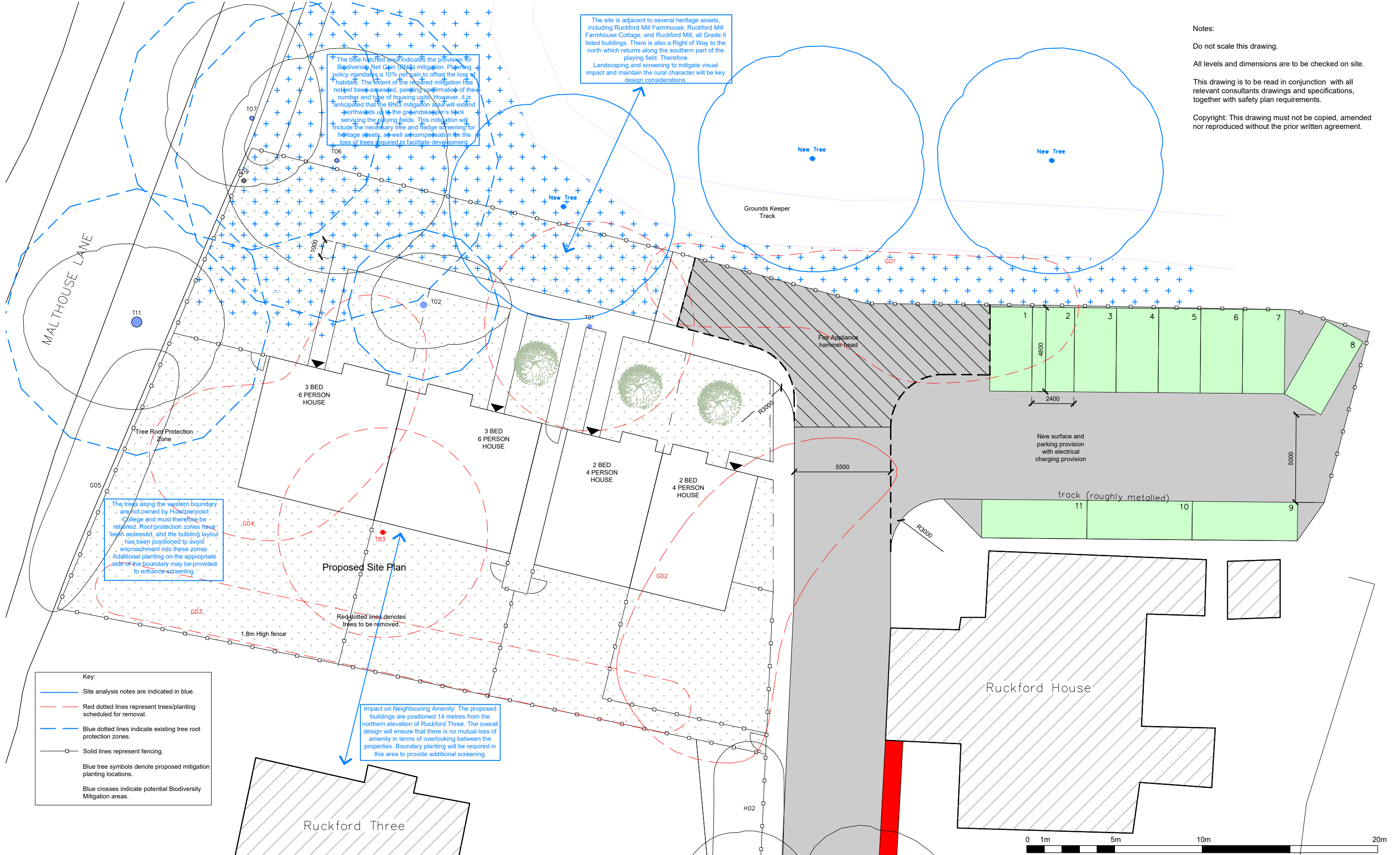
- 5.9 Residual risks are limited to exceedance events above the design criteria and/or a blockage failure of the local drainage network. Should flooding occur due to excess rainfall or through infrastructure blockage or failure, the surrounding topography and engineered hardstanding levels would suggest that overland flows established from such potential events would be directed beyond the site boundary to undeveloped land to the south.

6.0 CONCLUSIONS

- 6.1 The proposed development of staff accommodation at Hurstpierpoint College is deemed appropriate for Flood Zone 1 according to the principles set out in the NPPF. The site is currently shown to be at low risk of surface water flooding at the development site. Surface water flood risk will be further mitigated by the inclusion of a new SuDS system. The risk of flooding from all other sources is considered to be low or very low.
- 6.2 The staff accommodation site is served by private sewerage infrastructure, with foul and surface water flows from the existing buildings pumped to the public sewer network by a private pump station to the northwest of the site. An area of impermeable hardstanding currently draining to the foul pump station is to be incorporated into the infiltration-based surface water proposals, reducing the flow to the drainage system. Additional foul flows are anticipated to the foul drainage system, however an overall decrease in peak flows is anticipated due to the surface water catchment to be removed.
- 6.3 Infiltration testing was undertaken within the Head deposits and found to be acceptable for the proposed SuDS features. Infiltration will be the ultimate means of managing runoff at source. This will provide an improvement over the existing arrangement, which is currently unmanaged in places, and discharges to the foul drainage network in others. Infiltration is the preferred solution as defined by the SuDS hierarchy in the CIRIA SuDS Manual and Building Regulations Part H.
- 6.4 The external surfaces will be drained via permeable paving. Roof runoff will be collected via guttering, which will drain into the permeable paving sub-base.
- 6.5 As dictated by current guidance, the permeable paving has been designed to accommodate surface water generated from storm with a 100-year return period, with an additional 45% increase in rainfall intensity due to climate change. Exceedance flow routes have been assessed and are directed to the playing fields to the north and south of the site to further mitigate the risk to people and property.
- 6.6 This report has identified measures that reduce the level of residual risk to the site with the construction of a new SuDS system utilising infiltration. This report shows that the proposals for the redevelopment of the HPPC Ruckford House staff accommodation site can be successfully implemented and managed and that there should be no increase in risk to users and neighbouring properties from flooding over the expected design life of the development.



APPENDIX A - Architectural Proposals and Topographic Survey



Notes:

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All levels and dimensions are to be checked on site.

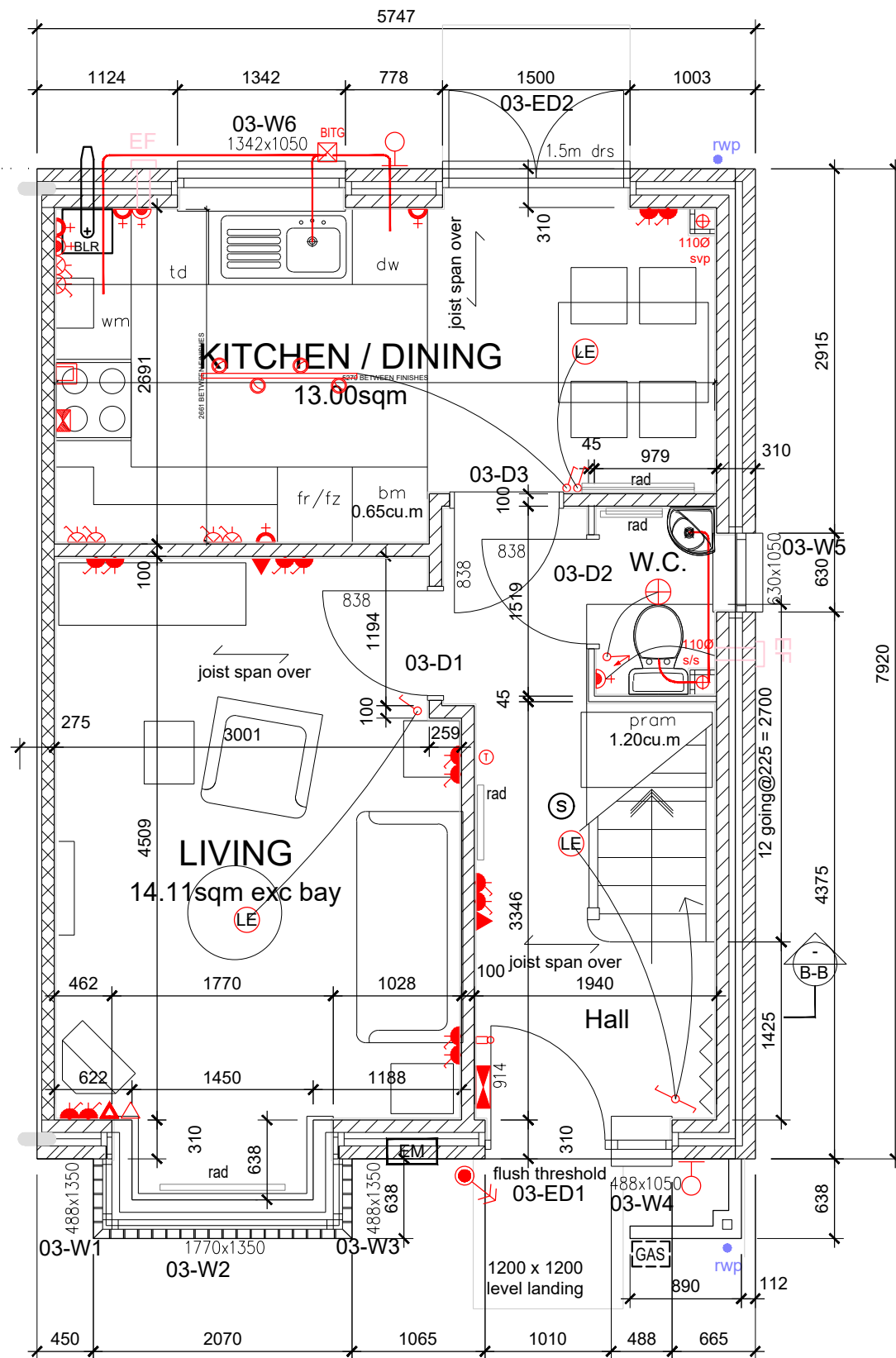
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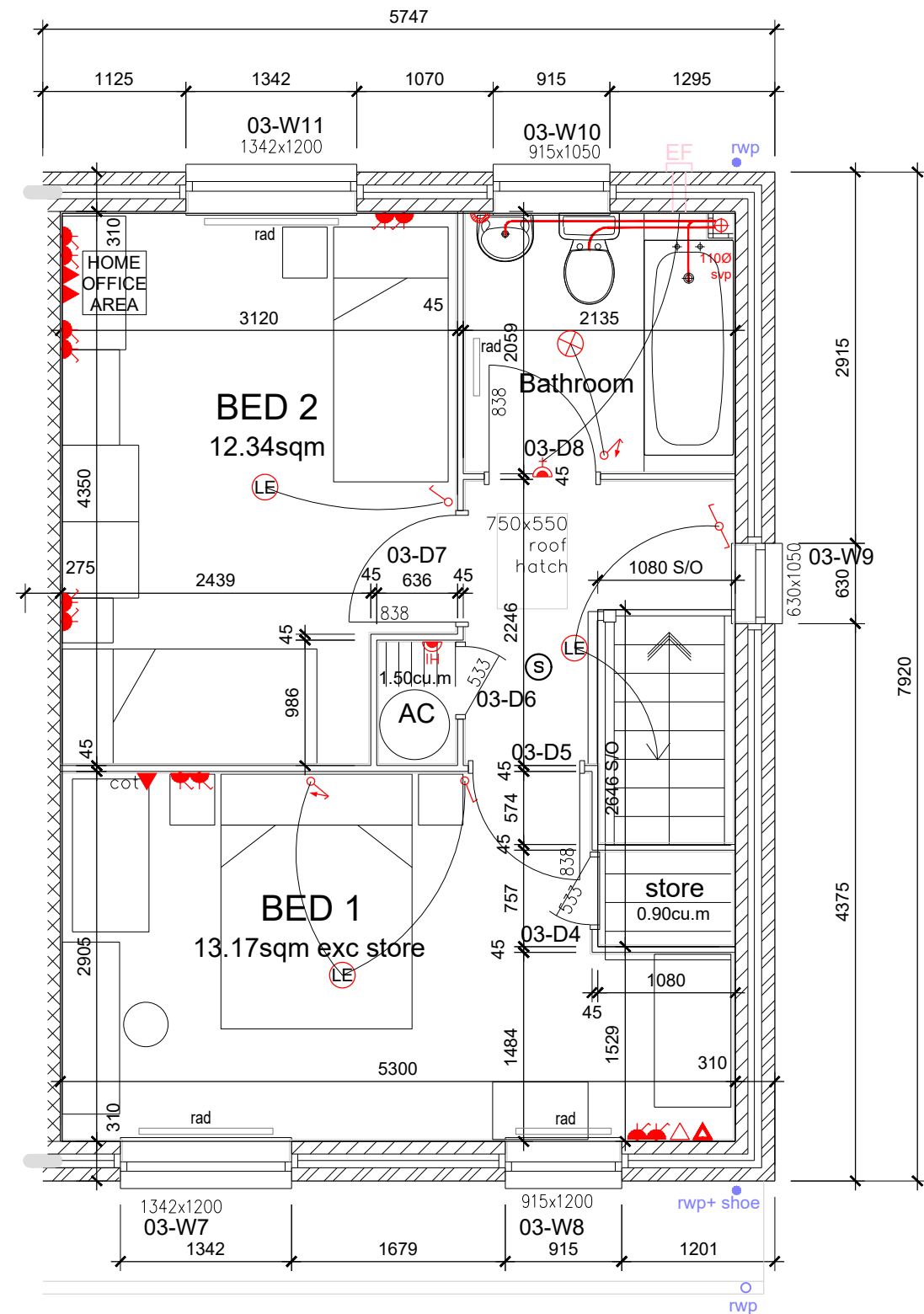
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A	15/05/2025	DB	Housing Types Amended - Client Instruction

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PROJECT New Staff Accomodation, Hurstpierpoint College			
DRAWING Proposed Site and Floor Plans			
STAGE Stage 2 Output			JOB NO. : 675
			DATE : 09/05/2025
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GROUND FLOOR PLAN
1:50



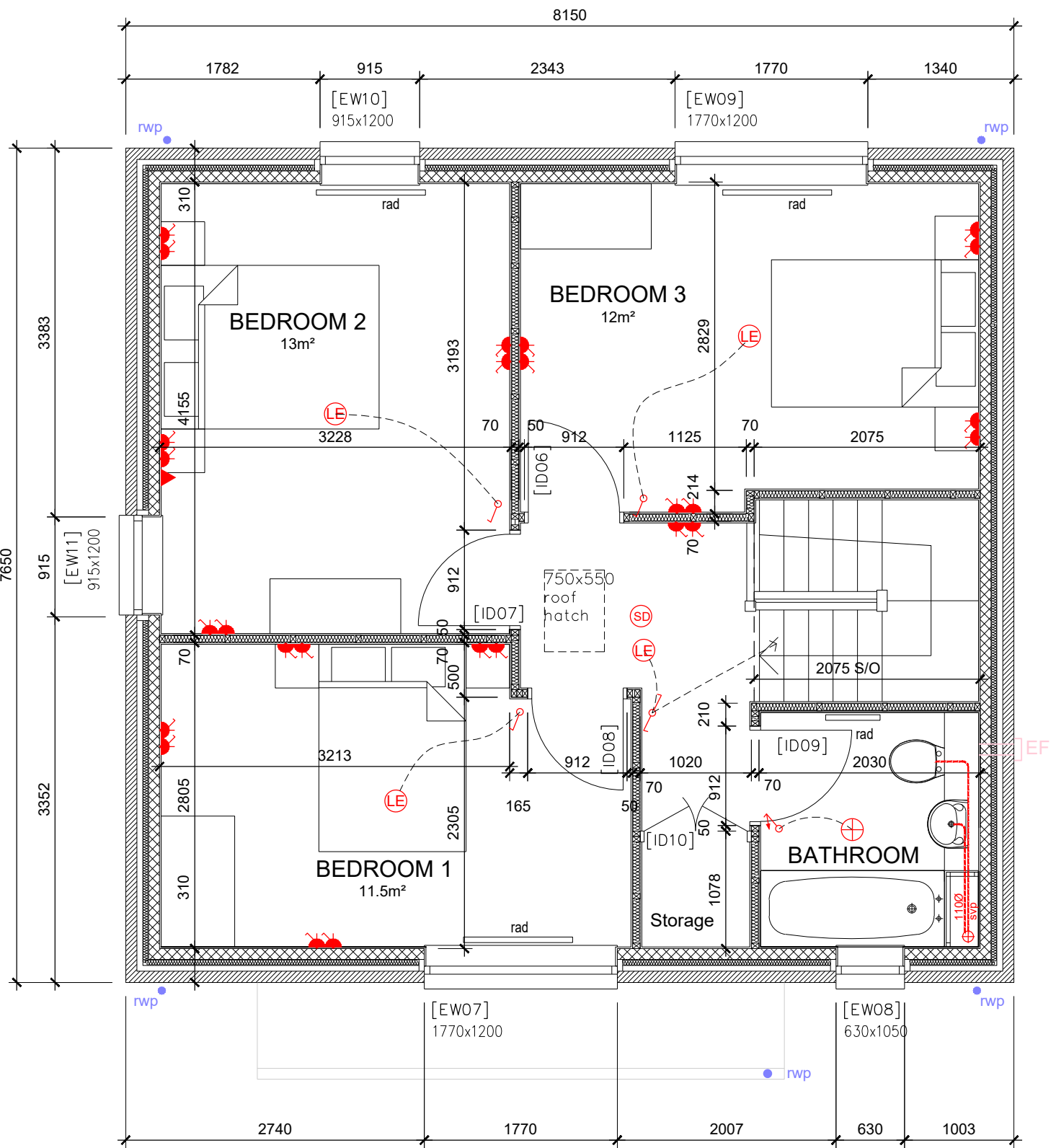
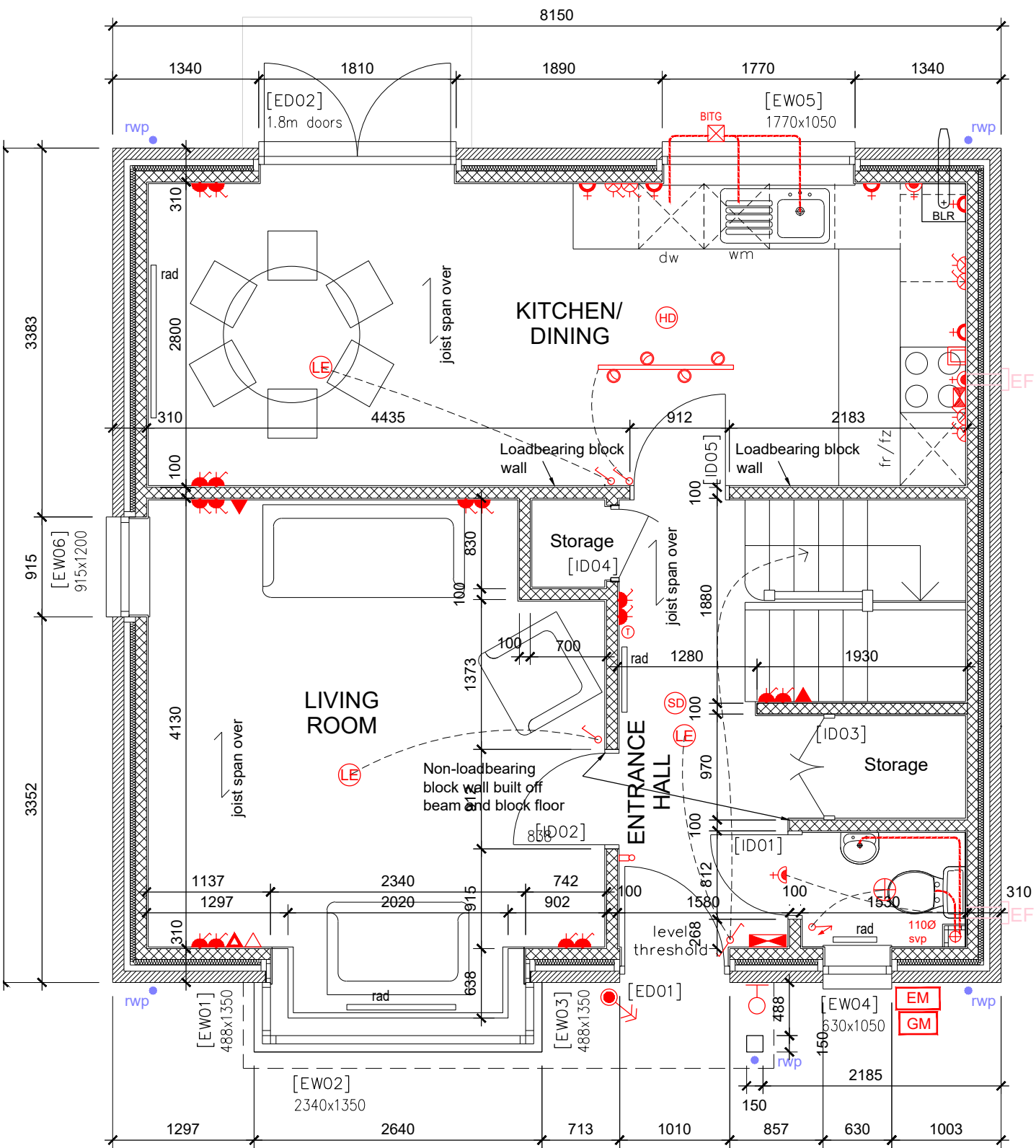
FIRST FLOOR PLAN
1:50

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REV.#	DATE	NAME	NOTES

PROJECT New Staff Accomodation, Hurstpierpoint College			
DRAWING Typical Floor Plans (2B4P)			
STAGE DRAFT - For Discussion Purposes			JOB NO. : 675
			DATE : 18/03/2025
DWG NO. SK.05	SCALE 1:100 @A3	REVISION : -	DRAWN : DB
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GROUND FLOOR PLAN
1:50

FIRST FLOOR PLAN
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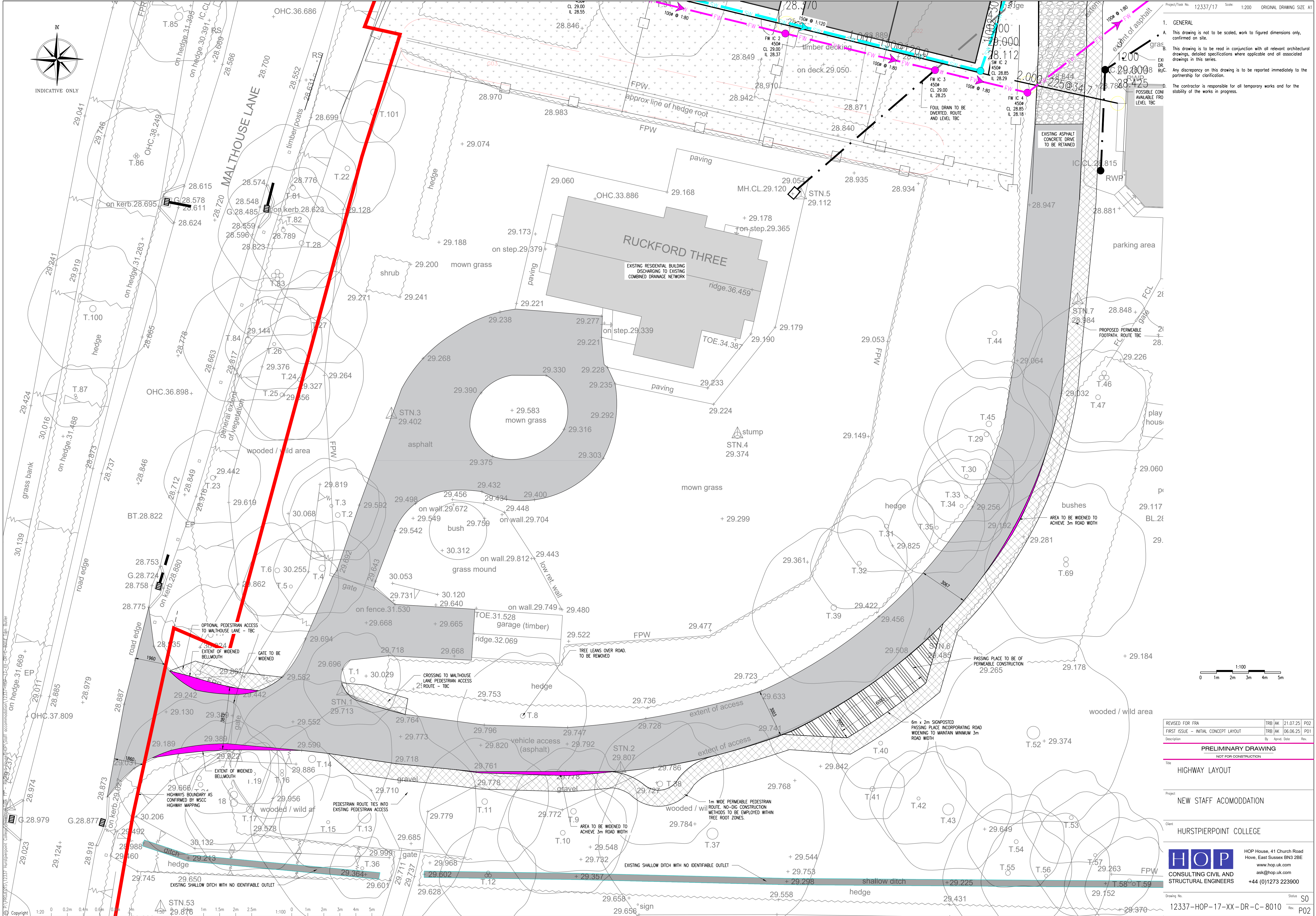
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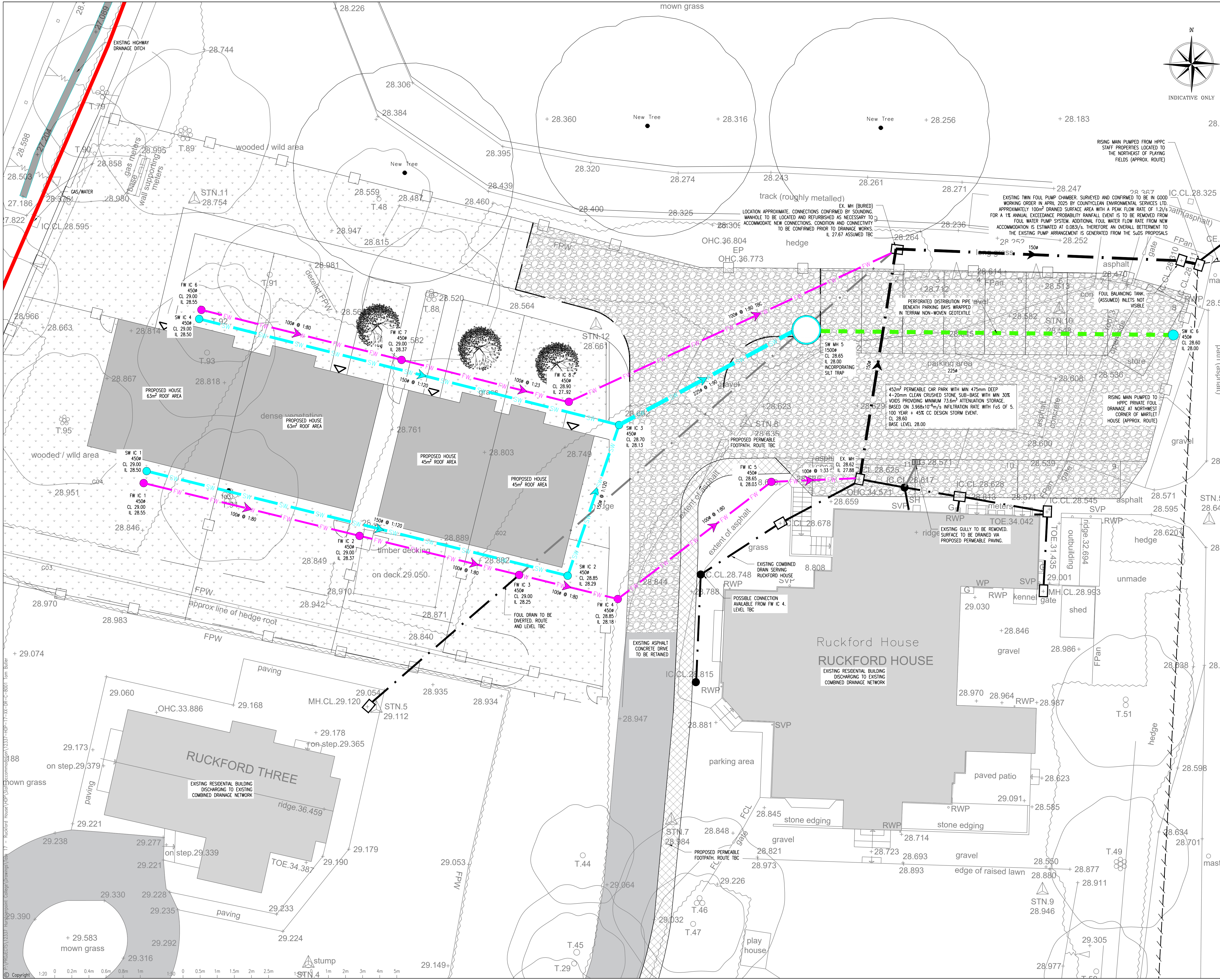
PROJECT New Staff Accommodation, Hurstpierpoint College			
DRAWING Typical Floor Plans (3B6P)			
STAGE DRAFT - For Discussion Purposes			JOB NO. : 675
			DATE : 18/03/2025
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APPENDIX B - HOP Proposed Drainage Layout



1. GENERAL
- A. This drawing is not to be scaled, work to figured dimensions only, confirmed on site.
 - B. This drawing is to be read in conjunction with all relevant architectural drawings, detailed specifications where applicable and all associated drawings in this series.
 - C. Any discrepancy on this drawing is to be reported immediately to the partnership for clarification.
 - D. The contractor is responsible for all temporary works and for the stability of the works in progress.

REVISED FOR FRA	TRB AK	21.07.25	P02
FIRST ISSUE - INITIAL CONCEPT LAYOUT	TRB AK	06.06.25	P01
Description			
By			
Date			
Rev.			
PRELIMINARY DRAWING			
NOT FOR CONSTRUCTION			
Title			
HIGHWAY LAYOUT			
Project			
NEW STAFF ACOMODDATION			
Client			
HURSTPIERPOINT COLLEGE			
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1. GENERAL
- A. This drawing is not to be scaled, work to figured dimensions only, confirmed on site.
- B. This drawing is to be read in conjunction with all relevant architectural drawings, detailed specifications where applicable and all associated drawings in this series.
- C. Any discrepancy on this drawing is to be reported immediately to the partnership for clarification.
- D. The contractor is responsible for all temporary works and for the stability of the works in progress.
2. BELOW GROUND DRAINAGE
- A. All foul and storm water drains which are not to be adopted as public sewers under a Section 104 Agreement must be constructed in accordance with Building Regulations Approved Document H, BS EN 752:2017 and, where appropriate, the relevant agreement certificates.
- B. Plastic pipes and fittings shall be of unplasticised polyvinyl chloride (PVC-U) complying with the requirements of BS EN 1401-1:2019 +A1:2023.
- C. Concrete pipes shall be spun by a centrifugal process or be vertically pressed. Concrete pipes shall comply with the requirements of, and be tested in accordance with, BS 5911-1:2021 and BS EN 1916:2002.
- D. Vitrified Clay pipes, fittings, joints, adaptors and couplings shall comply with the requirements of BS EN 295-1:2013 and BS EN 295-4:2013.
- E. All private foul water drains are to be laid at minimum gradient of 1 in 40 at the head of pipe runs, and minimum 1 in 80 elsewhere, unless otherwise stated on the drawing. Use chamber main channel invert levels to set gradient. Incoming branch invert level is typically 50mm above main channel.
- F. All private foul water drains are 100mm diameter, unless otherwise stated on the drawing.
- G. All private surface water drains are to be laid at minimum gradient of 1 in 80 unless otherwise stated on the drawing. Use chamber main channel invert levels to set gradient. Incoming branch invert level is typically 50mm above main channel.
- H. All private surface water drains are 100mm diameter from downpipes and 150mm diameter elsewhere, unless otherwise stated on the drawing.
- I. Allow for rodding access above ground where rainwater downpipes do not have a direct connection to an inspection chamber.
- J. Plastic Inspection Chambers shall comply with the requirements of BS EN 13598-1:2020.
- K. Precast concrete manhole units shall comply with the requirements of BS 5911-3:2022 and BS EN 1917:2002. Manhole cover slabs situated under carriageways shall be heavy duty and those situated elsewhere shall be light duty. The relevant absorption tests required shall be carried out on a sample of those rings and slabs used unless a certificate of testing is supplied by the manufacturer.
- L. Manhole covers and frames are to be a minimum of: Class B125 in non-traffic areas, footways and verges. Class D400 in trafficked areas and highways. Class E600 and F900 manhole covers to be used for heavy duty applications such as docks, airports and industrial areas.
- M. Manhole covers and frames to be bedded and hunched externally in mortar.
- N. All concrete used in drainage works is to comply with BRE Special Digest 1 (SD1:2005 - 3rd Edition) for Class 2 sulphate conditions.
- O. Any existing drain or sewer being re-used is to be surveyed and levelled prior to commencement of the drainage works, and refurbished if necessary.
- P. Connections to an adopted sewer are only to be made after receiving approval, from the relevant Sewerage Undertaker, of a sewer connection application (Section 106 - Water Industry Act 1991).
- Q. All drains, sewers and manholes are to be cleaned and tested for watertightness on completion of construction.

LEGEND

PROPOSED SURFACE WATER DRAIN

PROPOSED FOUL WATER DRAIN

PROPOSED PERFORATED PIPE

EXISTING RISING MAIN

EXISTING SURFACE WATER DRAIN

EXISTING SURFACE WATER DRAIN TO BE ABANDONED

EXISTING FOUL/COMBINED WATER DRAIN

EXISTING FOUL/COMBINED WATER DRAIN TO BE ABANDONED

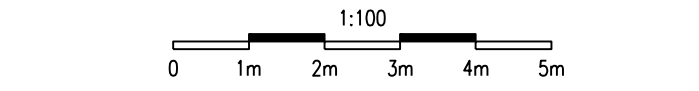
PROPOSED CONCRETE MANHOLE

PROPOSED PLASTIC INSPECTION CHAMBER (PPIC)

HIGHWAY GULLY

PROPOSED PERMEABLE PAVING

SITE BOUNDARY



FIRST ISSUE	TRB	AK	21.07.25	P01
Description	By	Appld.	Date	Rev.
PRELIMINARY DRAWING				
NOT FOR CONSTRUCTION				
Title				
DRAINAGE LAYOUT				
Project				
NEW STAFF ACCOMMODATION				
Client				
HURSPIERPOINT COLLEGE				
Drawing No.				
12337-HOP-17-XX-DR-C-8011				
Status				
S0				
Rev.				
P01				