

Project: Water Farm, Corsley

Subject: Pluvial Flood Risk Technical Note

Reference: 20133-TUM-TN-XXX-0001

Date	Details	Rev	Author	Checked by
14 th June 2026	First issue	A	RP	BF

1 INTRODUCTION

Tumu Consulting Ltd have been appointed by Chris Da Costa to undertake a Pluvial Flood Risk Technical Note Assessment, of the existing flood risk at the proposed residential development at Water Farm, Corsley.

The site is located north of Corsley, Wiltshire, BA12 7FD. The coordinates for the site are 383010, 147090.

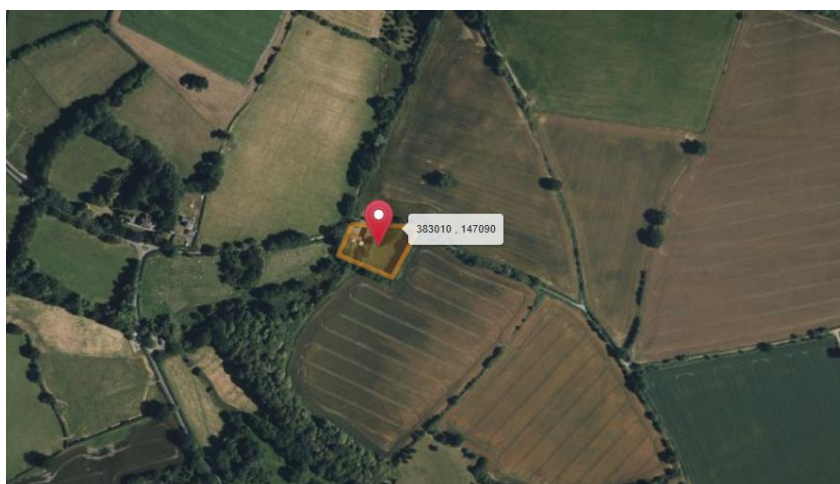


Figure 1-1 Site Location

The existing site comprises 2 no. of disused agricultural barns, as well as associated hard landscaping and access. The topography of the site falls from the eastern tree line, towards the site, before a steep bank just prior to the westernmost barn. External levels around the barn range from approximately 93.75-92.97mAOD, refer to the Topographic Survey in Appendix A. Although rainwater downpipes serve the barn, there is no evidence of a private surface water drainage network serving the existing development.

2 BACKGROUND

2.1 Previous Flood Risk Assessment

A Flood Risk Assessment (FRA) and Drainage Strategy was undertaken in February 2022 by Build Collective ref. BC00719 to support a full planning application to Wiltshire Council. The report was updated in 2025, with the proposed revised scheme. However, the report largely remained the same.

The report noted that the pluvial flood risk which showed encroachment on the western boundary would not impact on the proposed development and that a recommended finished floor level of 93.15mAOD wouldn't provide 600mm freeboard above Water Lane and the extent of the 0.1% Annual Exceedance Probability (AEP) pluvial event.

2.2 Planning Permission and Wiltshire Comments

The development secured planning permission in March 2026, ref. PL/2025/06391. Condition 5 of the decision notice, relates to the proposed surface water drainage strategy, refer to Appendix B. As part of the informatives, on page 6 of the decision notice, the third bullet point makes recommendation of finished floor level. See figure below.

- Evidence that the finished floor levels are above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the SW drainage cover levels. The minimum is 600mm above whichever of the following levels is the highest:

1. The average ground level of the site
2. Adjacent road levels to the building
3. Estimated river or sea level for the site

Figure 2-1 Extract from Wiltshire Council decision notice ref. PL/2025/06391

Wiltshire Council recommend 600mm freeboard above either Average Ground Level, Adjacent Road Level or estimate river and sea level.

2.3 Site Visit

On the 21st May 2026 Tumu attended site to gain background knowledge to the development and flood history of the site. Investigation was undertaken into potential fluvial pathways, which has since been supplemented by the topographic and LIDAR level information. The client informed Tumu, that while inundation of the road to the north west has occurred historically, he is not aware of any flooding affecting the site itself, and critically, the western barn which is to be developed.

3 PLUVIAL FLOOD RISK

3.1 Hydrology

An ordinary watercourse forms the western boundary of the development and is shown on the topographic survey. This discharges south west, and is an eventual tributary of the Rodden Brook. A brick culvert conveys surface water beneath Water Lane. The previous FRA reports the dimensions are 0.6m wide and 0.5m in depth. A secondary 300mm diameter culvert also discharges beneath water lane, linked hydrologically however through a separate outfall.



Figure 3-1 Brick Culvert Upstream Inlet

During a site visit on 21/05/2026 during warm weather on the day and a relatively dry fortnight prior, there was flow within the watercourse. Its anticipated the discharge is perennial. The upstream catchment extends northwards to Chalcot Lane, investigated by using local LIDAR data. The catchment comprises multiple ordinary watercourses and a pond.

3.2 Flood Map for Planning

The Environment Agency (EA) Flood Map for Planning (FMfP) has been consulted to identify flood risk to the development.



Figure 3-2 EA FMfP - Flood Zones

The figure above shows the site is located within flood zone 1. This is the lowest classification of flood risk and corresponds to a tidal or fluvial flood risk of less than 0.1%.

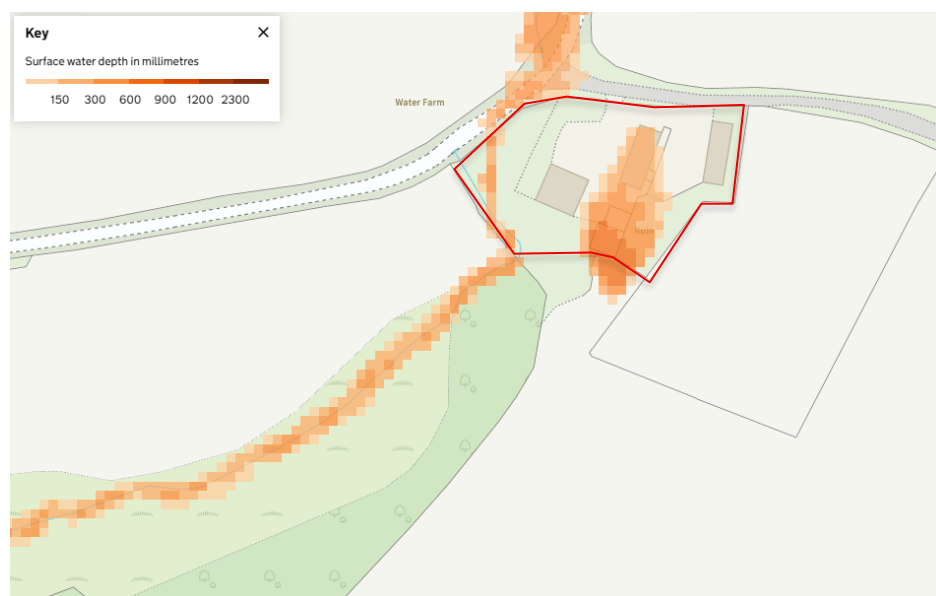


Figure 3-3 EA FMfP – 3.3% AEP Pluvial Flood Risk

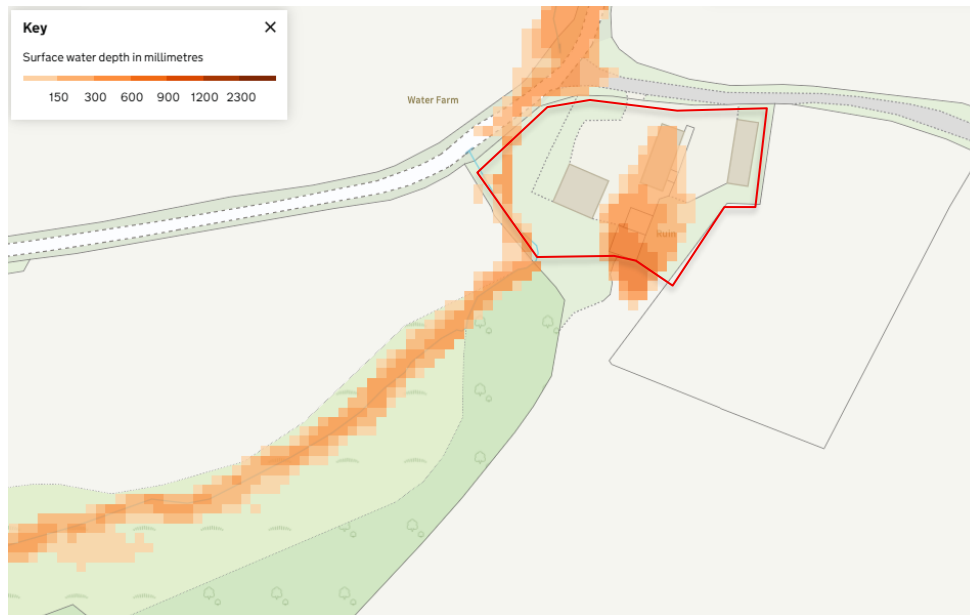


Figure 3-4 EA FMfP – 1.0% AEP Pluvial Flood Risk

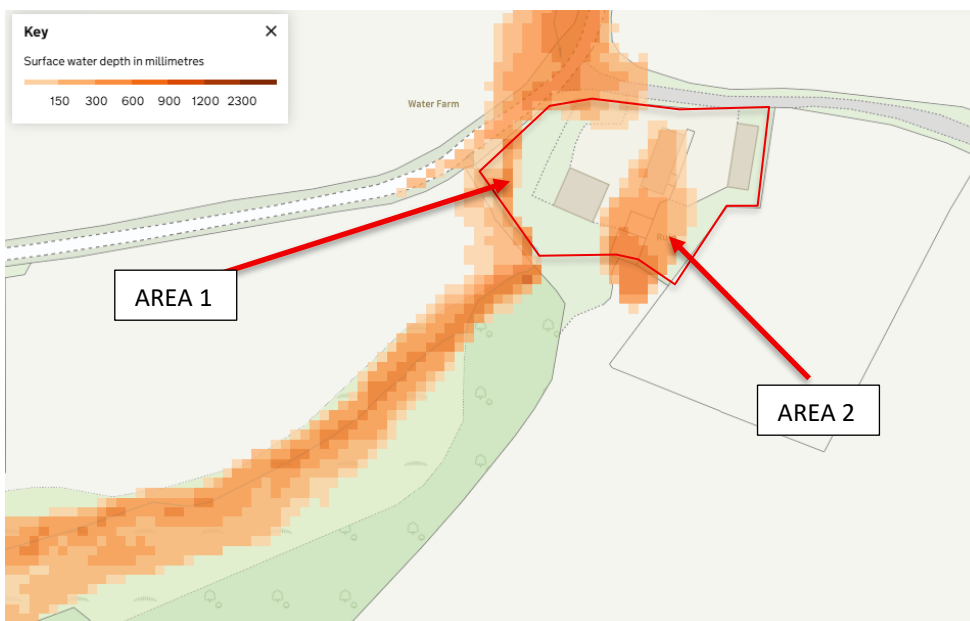


Figure 3-5 EA FMfP – 0.1% AEP Pluvial Flood Risk

As demonstrated by figure 3-3, 3-4 and 3-5, the site is at risk of pluvial flooding in the 3.3%, 1.0% and 0.1% AEP pluvial events. The pluvial flooding shown in area 1 has little to no impact on the site. In area two, the pluvial flooding shows inundation to the western barn.

The cause of the pluvial risk in Area 2 arises from the greenfield catchment to the east, combined with the undrained hardstanding on site. Pluvial flows are conveyed through the local topography and discharge to the site which inundates the lowest elevation, in the centre of the site.

Area 1 flooding as it has no impact on the proposed Barns, no work is proposed mitigate the flows and this report focuses on the flooding mechanism in area 2. Any discussion from here on is focused on area 2

For all pluvial risk probabilities, the western barn is shown to be inundated up to 300mm. The lower lying area to the south showing inundation depths between 600-900mm, where the animal pen was historically situated.

A ridge in the topography forms a high point just west of the western barn, refer to Appendix C. This acts as a weir which prevents discharge of the pluvial flows westwards, to the watercourse. Therefore the ridge retains pluvial flows within area surrounding the two barns. The retaining level is 93.29mAOD, which is the lowest level along the ridge. Any inundation at a depth above this, can discharge westwards. Refer to Appendix C for the Pluvial Catchment Assessment which demonstrates the ridge line.

3.3 Catchment Assessment

In order to determine the magnitude of the flows which arise and cause the inundation, a catchment assessment has been undertaken which estimates greenfield and brownfield flow rates, causing the modelled flood extents. Refer to Appendix C for the Pluvial Catchment Assessment.

Light Detection and Ranging (LIDAR) data has been utilised to generate a local ground profile, from which the catchment has been estimated based upon overland flow directions. The greenfield area to the south east, which has a contributes to pluvial flood risk on site through overland flow, is estimated as 2.508ha.

The topographic survey has been utilised to determine brownfield contributing areas. This comprises the barns and hard standing area between. It is estimate that this contributing area is 0.028ha.

During the site visit, an investigation into whether overland flow from the north can discharge to the site via the Bridleway. It has been determined that there is a presence of a raised verge, on the boundary of property, preventing any passage of overland flow from The Bridleway onto the site. The presence of water marks shows the routing of overland flows, bypass the site and discharge westwards. Refer to Figure 3-6.



Figure 3-6 The Bridleway Looking Eastwards

The lowest elevation of the verge, relative to the bridleway was investigated to ensure there was no overtopping flow into site. As per Figure 3-7, shown is the elevation difference between the water mark within the road, and the top of the lowest relative verge height.



Figure 3-7 The Bridleway Looking Eastwards

Refer to Appendix C for the Pluvial Catchment Assessment which shows the orientation of the photographs taken, for Figure 3-6 and 3-7.

Utilising the two catchments, the existing rate of discharge to site can be estimated using a greenfield runoff calculation, and a modified rationale calculation (brownfield). Local rainfall data from the Flood Estimation Handbook 22 (FEH22) has been used to estimate both flow rates. Causeway FLOW software has been used to calculate the greenfield discharge rates. Refer to Appendix D for the Causeway FLOW calculations, outlining the greenfield runoff rate.

The existing area of hard standing on site is 0.028ha. The brownfield run-off rate has been calculated using the modified rational approach from 'The Wallingford Procedure - Volume 4', the existing hard standing area, A , and the average rainfall intensity during the time of concentration, i . Due to the small area associated with the brownfield catchment, a 15 minute storm duration has been used as the concentration time. The modified rational approach equation is as follows:

$$Q = 2.78iA$$

Tabulated below, is the discharge rate estimate from both catchments for the 50, 3.3 and 1.0% AEP pluvial events. Causeway FLOW software does not allow the modelling of 0.1% AEP greenfield events.

Return Period (% AEP)	Area (ha)	Greenfield Discharge Rate (l/s)
50	2.508	9.5
3.3	2.508	21.0
1.0	2.508	26.2

Table 3-1 Existing Greenfield Catchment Discharge Rates

Return Period (% AEP)	Area, A (ha)	Rainfall Intensity, I (mm/hr)	Brownfield Discharge Rate (l/s)
50	0.028	26.84	2.1
3.3	0.028	72.68	5.7
1.0	0.028	91.76	7.1

Table 3-2 Existing Brownfield Catchment Discharge Rates

Return Period (% AEP)	Combined Discharge Rate (l/s)
50	11.6
3.3	26.7
1.0	33.3

Table 3-3 Combined Catchment Discharge Rates

It can be estimated that in the 1% AEP event, the flows arising to site and causing inundation are in the magnitude of 33.3l/s.

3.4 Groundwater

The Wiltshire Strategic Flood Risk Assessment (SFRA) Level 1 viewer tool notes the site as being within an area where groundwater may be at the surface, or very close to the surface. The previous Flood Risk Assessment concluded that groundwater flood risk was not an issue. BRE365 compliant infiltration testing has been undertaken as part of the Surface Water Drainage Strategy, refer to technical note 20133-TUM-TN-XXX-0002. As part of the testing, a groundwater test pit was excavated to check for groundwater. The groundwater level at the time of testing was 2.1m bgl on site. It is likely that the groundwater level is hydrologically linked with the water level within the watercourse to the west of the site. A french drain has been installed around the perimeter of the western barn, which currently alleviates groundwater to the barn. However, there is no known outfall to the french drain. The client informs he has not aware of any groundwater seepage at surface level on site.



Figure 3-8 Western Barn Perimeter French Drain

4 MITIGATION AND RESILIENCE

4.1 Surface Water Drainage System

A new surface water drainage system is proposed to serve the barns and associated hard surfacing/driveway. As such, the existing brownfield contributing area, which is currently undrained, will now be drained by a surface water network which intercepts flows from the roof and proposed hard standing areas. The surface water drainage system will feature attenuation, to store on site flows, prior to discharging at a reduced rate into the watercourse for all storms up to and including the 1% AEP event, with a 40% allowance for climate change. Refer to technical note 20133-TUM-TN-XXX-0002 for the Proposed Surface Water Drainage Strategy.

In addition to this, a large proportion of the existing hard standing is proposed to be replaced with soft landscaping, further reducing the flow rate. It can therefore be considered that upon development, the existing contributing brownfield catchment will be negated by the proposed private surface water drainage network.

4.2 Overland Flow Interception

In order to alleviate the risk of overland flows discharging to the site in Area 2, it is proposed to intercept these flow routes at the top of the embankment to the south east of the development as shown in Appendix C. It is proposed to install a french drain, which will be adequately sized with a 225mm Ø perforated drain at the base, sized to convey the 1% AEP event greenfield catchment, with a rate of 26.2l/s.

This will convey overland flows to the west through a new pluvial alleviation drainage system, prior to discharging to the watercourse, while bypassing the proposed development. Refer to Appendix E for the Pluvial Alleviation Layout, and Appendix D for the Causeway Flow Calculations where the 26.2l/s has been added as a baseflow, as well as the outflows from the surface water network and groundwater french drain surrounding the property.

4.3 Regrading of Levels

In addition to the measures proposed to intercept flows, external levels and the ridge which currently retains pluvial flooding will be regraded so that pluvial flows discharge away from the dwelling. This means that in an exceedance event or if the system becomes blocked, the development is still protected. Exceedance flows will discharge to the western watercourse.

4.4 Extension of French Drain

Currently a french drain forms a channel around the perimeter of the western barn. This will be extended to surround the western barn extension. Any raised groundwater levels will be intercepted by the french drain surrounding the western barn. An outfall will also be installed, which will discharge any raised groundwater to the pluvial alleviation system. It will also act as a back up solution to any pluvial flows which may discharge to the western barn, which can be intercepted by the french drain and diverted to the watercourse.

4.5 Proposed Finish Floor Levels

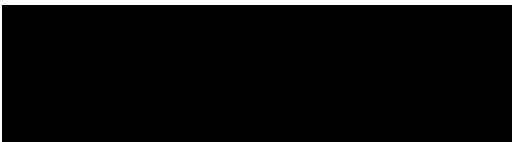
The Wiltshire Council Informative to the approved planning permission, requiring raising of FFL 600mm above the greatest of the three parameters set out. However, with the alleviation measures proposed as part of the development, the pluvial flood risk can be mitigated against through the introduction of a new private surface water drainage system, as well as intercepting and redirecting pluvial flows. Therefore, the finished floor level of the western barn is proposed at 93.15mAOD. This provides a standard construction of 150mm freeboard above proposed external ground levels, and not be at risk of pluvial flooding. The eastern barns FFL will remain as existing at 93.60mAOD. The new garage FFL will be 93.30mAOD. Levels fall away from both of these barns.

5 CONCLUSION

- The EA FMfP notes the site is at risk of pluvial flooding. However it is not at risk of fluvial or tidal flooding. The client is not aware of any flooding on site historically.
- An existing catchment contributing to pluvial flood risk arises from both hard and soft areas.
- An existing ridge line retains the pluvial inundation, preventing flow westwards to the existing watercourse and acting as a weir to the elevation of 93.29mAOD.
- The Wiltshire SFRA notes there may be a presence of groundwater emergence. However, the previous FRA concluded there was no risk. BRE365 testing found groundwater presence at 2.1m bgl. A french drain currently surrounds the western barn and the client notes he is not aware of any groundwater egress on site.
- It is proposed to intercept overland flows causing the flooding by installing a french drain and re-route the flows to the watercourse using conventional pipework.
- A new surface water drainage system serving the barns and associated proposed hard standing areas has been developed. Existing concrete hard standing will become landscaped. The system is sized for the 1% AEP event with a 40% climate change allowance. This will negate any existing contributing area from roofs or hard standing.
- Levels will be reprofiled to ensure exceedance pathways are kept open for discharge to the western watercourse.
- The existing french drain which surrounds the western barn will be extended around the perimeter of the extension. An outfall will be added to the wider pluvial alleviation system.
- The finished floor level of the western barn is proposed at 93.15mAOD. Which provides an adequate 150mm freeboard over external areas.

It is proposed that with the alleviation measures proposed, the flood risk to the development has been negated, and there is no requirement for a 600mm raised FFL as per the Wiltshire Council Decision Notice informatives.

Robbie Parnham, BEng (Hons), MSc



Senior Infrastructure Engineer

Tumu Consulting

Appendix A – Topographic Survey

Appendix B – Planning Decision Notice



The Town and Country Planning Act 1990
Approval of Full Planning Permission with Conditions
Application Reference Number: PL/2025/06391
Decision Date: 12/03/2026

Applicant:	Mr Chris Da Costa Water Farm, Corsley, Warminster, BA12 7QD
Particulars of Development:	Convert and extend two barns to create a dwellinghouse with ancillary accommodation including the erection of an outbuilding and associated works
At:	Water Farm, Corsley, Warminster, BA12 7QD

In pursuance of its powers under the above Act, the Council hereby **GRANT PLANNING PERMISSION** for the above development to be carried out in accordance with the application and plans submitted (listed below).

In accordance with paragraph 39 of the National Planning Policy Framework, Wiltshire Council has worked proactively to secure this development to improve the economic, social and environmental conditions of the area.

Subject to the following conditions:

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

REASON: To comply with the provisions of Section 91 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004.

- 2** The development hereby permitted shall be carried out in accordance with the following approved plans and documents:

Location plan - Received 31/7/25

Proposed site plan - Drawing No 1245/2A - Received 21/11/25

Proposed floor and roof plans new barn - Drawing No 1245/3 - Received 31/07/25

Proposed elevations - Drawing No 1245/4A - Received 21/11/25

Proposed floor plans and elevations old barn - Drawing No 1245/6 - Received 31/07/25

Proposed floor plan and elevations of outbuilding - Drawing No 1245/7 - Received 31/07/25

REASON: For the avoidance of doubt and in the interests of proper planning.

- 3** The development hereby approved shall be carried out in accordance with the following documents:

- Proposed Bat House, llewellyn Harker Lowe, February 2023 - Drawing No 4013-TD 201 - Received 17/10/25

- Bat House Notes, CdaC, October 2025

- Proposed Bat Roost & Biodiversity Enhancements, llewellyn Harker Lower, December 2021 - Drawing No 4184/BR1A - Received 17/10/25

- Lighting Plan – Proposed Bat Roost & Biodiversity Enhancements, llewellyn Harker Lowe, December 2021” - Drawing No 4184/BR1A - Received 17/10/25, and a lighting letter from Context Planning, October 2025

- Phase 2 further bat activity and inspection surveys, Greena Ecological Consultancy, September 2024

- Biodiversity Net Gain Report, Greena Ecological Consultancy, February 2026

REASON: For the avoidance of doubt and for the protection, mitigation and enhancement of biodiversity

- 4** No development shall commence on site (including any vegetation removal or works to existing structures), until a Construction Method Statement has been submitted to, and approved in writing by the Local Planning Authority. The Construction Method Statement shall include all precautionary measures to be implemented during the construction period, for the protection of sensitive habitats and species known to be present within or adjacent the site, with particular reference to bats, nesting birds (including Barn Owls), and the bordering deciduous woodland and waterway. The development shall be carried out in strict accordance with the approved Construction Method Statement.

REASON: To ensure adequate protection, mitigation and compensation for protected species and priority habitats throughout the construction period.

- 5** No development shall commence on site until a scheme for the discharge of surface water from the site (including surface water from the access/driveway), incorporating sustainable drainage details, has been submitted to and approved in writing by the Local Planning Authority. The development shall not be first occupied until surface water drainage has been constructed in accordance with the approved scheme.

REASON: To ensure that the development can be adequately drained.

- 6** The development hereby approved shall not be first brought into use until a scheme of hard and soft landscaping has been submitted to and approved in writing by the Local Planning Authority, the details of which shall include :-
- location and current canopy spread of all existing trees and hedgerows on the land;
 - full details of any to be retained, together with measures for their protection in the course of development;
 - a detailed planting specification showing all plant species, supply and planting sizes and planting densities;
 - means of enclosure;
 - parking layout;
 - all hard and soft surfacing materials;
 - proposed and existing functional services above and below ground (e.g. drainage, power, communications, cables, pipelines etc indicating lines, manholes, supports etc);
- REASON: To ensure a satisfactory landscaped setting for the development and the protection of existing important landscape features.

- 7** All soft landscaping comprised in the approved details of landscaping shall be carried out in the first planting and seeding season following the first occupation of the building(s) or the completion of the development whichever is the sooner; All shrubs, trees and hedge planting shall be maintained free from weeds and shall be protected from damage by vermin and stock. Any trees or plants which, within a period of five years, die, are removed, or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing by the local planning authority. All hard landscaping shall also be carried out in accordance with the approved details prior to the occupation of any part of the development or in accordance with a programme to be agreed in writing with the Local Planning Authority.

REASON: To ensure a satisfactory landscaped setting for the development and the protection of existing important landscape features.

- 8** No development shall commence on site above ground slab level until details of the materials to be used for the external walls and roofs of the buildings including cladding, windows and doors have been submitted to and approved in writing by the Local Planning Authority (this shall include manufacturers details, product information and photographs of the proposed materials). Development shall be carried out in accordance with the approved details.

REASON: In the interests of visual amenity and the character and appearance of the area.

- 9** No part of the development shall be first brought into use until the visibility splays shown on the approved plans (Proposed Block Plan Drawing No.1245/8) have

been provided with no obstruction to visibility at or above a height of 900mm above the nearside carriageway level. The visibility splays shall always be maintained free of obstruction thereafter.

REASON: In the interests of highway safety

- 10** The development hereby permitted shall not be first brought into use until the first 5m of the access, measured from the edge of the carriageway, has been consolidated and surfaced (not loose stone or gravel). The access shall be maintained as such thereafter.

REASON: In the interests of highway safety

- 11** No external light fixture or fitting shall be installed within the application site other than as specified within the approved plans and documents unless details of existing and proposed new lighting have been submitted to and approved by the Local Planning Authority in writing. The submitted details will demonstrate how the proposed lighting will impact on bat habitat compared to the existing situation. The plans will be in accordance with the appropriate Environmental Zone standards set out by the Institution of Lighting Professionals (ILP) Guidance Notes on the Avoidance of Obtrusive Light (GN 01/2021) and Guidance note GN08/23 "Bats and artificial lighting at night", issued by the Bat Conservation Trust and Institution of Lighting Professionals.

REASON: To avoid illumination of habitat used by bats.

- 12** The additional accommodation provided in the converted single storey barn shall remain ancillary to the residential use of the main dwelling in the converted two storey barn and the two converted buildings together with the new ancillary garage building hereby permitted shall not be occupied at any time other than for the purposes of a single residential unit of accommodation.

REASON: The site and buildings are located in the countryside and laid out in a manner that the Local Planning Authority, having regard to the reasonable standards of residential amenity, access, and planning policies pertaining to the creation of new residential dwellings, would not permit more than one dwelling on the site.

- 13** Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) or any Order revoking or re-enacting or amending those Orders with or without modification, no development within Part 1, Classes A, AA, B, C or E shall take place on the dwellinghouse and ancillary accommodation hereby permitted or within the curtilage.

REASON: In the interests of protecting the biodiversity on the site and to enable the Local Planning Authority to consider individually whether planning permission should be granted for additions, extensions or enlargements.

Informatives

Water Farm is used by roosting bats. Under the Conservation of Habitats and Species Regulations 2017 (as amended), it is an offence to harm or disturb bats or damage or destroy their roosts. Planning permission for development does not provide a defence against prosecution under this legislation. The applicant is advised that a European Protected Species Licence will be required before any work is undertaken to implement this planning permission. Future works on site could also breach this legislation and advice should be obtained from a professional bat ecologist before proceeding.

The adults, young, eggs and nests of all species of birds are protected by the Wildlife and Countryside

Act 1981 (as amended) while they are breeding. Please be advised that works should not take place that will harm nesting birds from March to August inclusive. All British birds, their nests and eggs are

protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000 while birds are nesting, building nests and sitting on eggs. The applicant is advised to check any structure or vegetation capable of supporting breeding birds and delay removing or altering such features until after young birds have fledged. Damage to extensive areas that could contain nests/breeding birds should be undertaken outside the breeding season. This season is usually taken to be the period between 1st March and 31st August but some species are known to breed outside these

limits.

The applicant is advised that the development hereby approved may represent chargeable development under the Community Infrastructure Levy Regulations 2010 (as amended) and Wiltshire Council's CIL Charging Schedule. If the development is determined to be liable for CIL, a Liability Notice will be issued notifying you of the amount of CIL payment due. If an Additional Information Form has not already been submitted, please submit it now so that we can determine the CIL liability. In addition, you may be able to claim exemption or relief, in which case, please submit the relevant form so that we can determine your eligibility. The CIL Commencement Notice and Assumption of Liability must be submitted to Wiltshire Council prior to commencement of development. Should development commence prior to the CIL Liability Notice being issued by the local planning authority, any CIL exemption or relief will not apply and full payment will be required in full and with immediate effect. Should you require further information or to download the CIL forms please refer to the Council's Website <https://www.wiltshire.gov.uk/dmcommunityinfrastructurelevy>.

The applicant should note that under the terms of the Wildlife and Countryside Act (1981) and the Habitats Regulations (2010) it is an offence to disturb or harm any protected species, or to damage or disturb their habitat or resting place. Please note that this consent does not override the statutory protection afforded to any such species. In the event that your proposals could potentially affect a protected species you should seek the advice of a suitably qualified and experienced ecologist and consider the need for a licence from Natural England prior to commencing works. Please see Natural England's website for further information on protected species.

The surface water drainage strategy shall include:

- Evidence that the applicant has considered how surface water re-use can be maximised or provide justification as to why it cannot be achieved on this site.
- The site layout should be updated to demonstrate the inclusion and arrangement of interception storage features in accordance with Standard 2 of the National Standards for SuDS. Evidence and calculations shall be provided to demonstrate that the runoff from each positively drained surface, for at least 5mm of rainfall, is either collected for use, infiltrated into the ground, or else captured, conveyed and stored within SuDS features.
- Evidence that the finished floor levels are above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the SW drainage cover levels. The minimum is 600mm above whichever of the following levels is the highest:

1. The average ground level of the site

2. Adjacent road levels to the building

3. Estimated river or sea level for the site

- Design calculations for management of surface water runoff up to the 1 in 100-year storm plus 40% climate change.
- A dedicated exceedance routing plan shall be submitted and approved, showing how flows will be safely managed during exceedance events, in accordance with National SuDS Standard 4
- The applicant shall submit details of the proposed outfall to the adjacent watercourse, demonstrating the design discharge rate for the 1 in 100-year storm event plus 40% climate change (restricted to greenfield runoff rates) and showing that the design includes measures to prevent backflow from the watercourse into the site drainage system.
- Evidence that infiltration testing carried out in accordance with BRE Digest 365, undertaken at the depth and location of all proposed infiltration features, with results submitted for approval.
- Prior to installation, detailed cross-section drawings of the drainage features (infiltration trench, permeable paving) shall be submitted.

The applicant is referred to Wiltshire Council's Surface Water Soakaway Guidance for the standards that must be met for planning approval and adoption of infiltration drainage features.

Wiltshire Council is the land drainage authority under the Land Drainage Act 1991. Land drainage consent is required if a development proposes to discharge flow into an ordinary watercourse or carry out work within 8m of an ordinary watercourse.

An ordinary watercourse is a watercourse that does not form part of a main river. The term watercourse includes all rivers and streams and all ditches, drains, cuts, culverts, dikes, slices, sewers (other than public sewers within the meaning of the Water Industry Act 1991) and passages, through which water flows. Wiltshire Council's land drainage bylaws can be downloaded at [Drainage - Wiltshire Council](#). The land drainage consent application form and guidance notes can be found on our website [Land drainage and ordinary watercourse - Wiltshire Council](#).

Discharge from the package treatment plant may require a separate Environmental Permit or exemption from the Environment Agency. The applicant is advised to discuss the discharge from the package treatment plant with the council's building control team to confirm compliance with the General Binding Rules and engage with the Environment Agency if required.

The effect of paragraph 13 of Schedule 7A to the Town and Country Planning Act 1990 is that planning permission granted for the development of land in England is deemed to have been granted subject to the condition "(the biodiversity gain condition)" that development may not begin unless:

- (a) a Biodiversity Gain Plan has been submitted to the planning authority, and
- (b) the planning authority has approved the plan.

The planning authority, for the purposes of determining whether to approve a Biodiversity Gain Plan if one is required in respect of this permission would be Wiltshire Council.

There are statutory exemptions and transitional arrangements which mean that the biodiversity gain condition does not always apply. For further information on exempt developments please refer to:

<https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments>

Based on the information available this permission is considered to be one which will require the approval of a biodiversity gain plan before development is begun because none of the statutory exemptions or transitional arrangements are considered to apply.

Irreplaceable habitat

If the onsite habitat includes irreplaceable habitat (within the meaning of the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024) there are additional requirements for the content and approval of Biodiversity Gain Plans.

The Biodiversity Gain Plan must include, in addition to information about steps taken or to be taken to minimise any adverse effect of the development on the habitat, information on arrangements for compensation for any impact the development has on the biodiversity of the irreplaceable habitat.

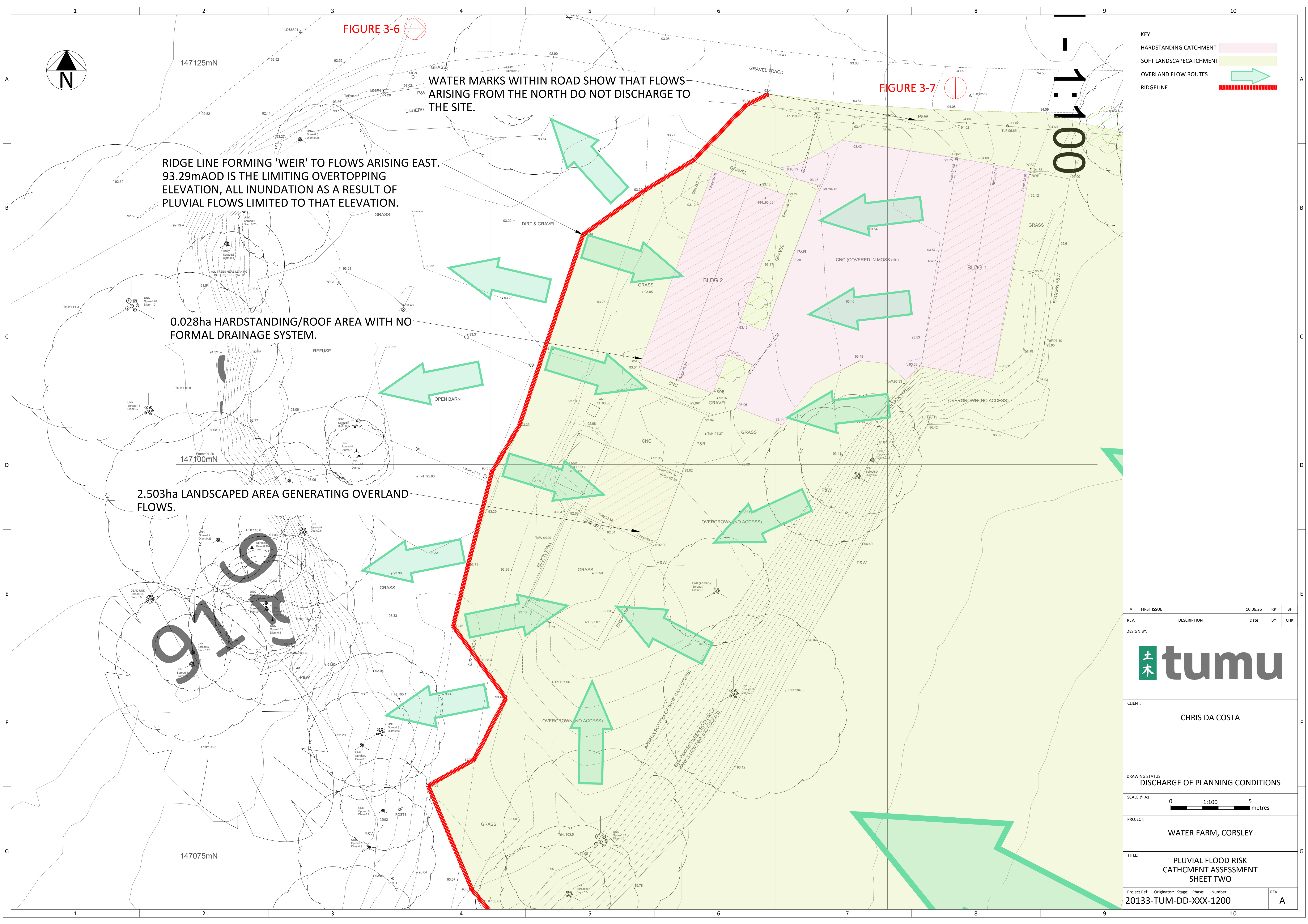
The planning authority can only approve a Biodiversity Gain Plan if satisfied that the adverse effect of the development on the biodiversity of the irreplaceable habitat is minimised and appropriate arrangements have been made for the purpose of compensating for any impact which do not include the use of biodiversity credits.

Nic Thomas - Director of Planning, Economy and Regeneration

NOTES

- 1 **Other Necessary Consents.** This document only conveys permission for the proposed development under Part III of the Town and Country Planning Act 1990 and the applicant must also comply with all the byelaws, regulations and statutory provisions in force in the area and secure such other approvals and permissions as may be necessary under other parts of the Town and Country Planning Act 1990 or other legislation.
 - 1.1 the need in appropriate cases to obtain approval under Building Regulations. **(The Building Regulations may be applicable to this proposal. Please contact the Council's Building Control team before considering work on site);**
 - 1.2 the need to obtain an appropriate order if the proposal involves the stopping up or diversion of a public right of way or other highway (including highway verge);
 - 1.3 the need to obtain a separate "Listed Building Consent" to the demolition, alteration or extension of any listed building of architectural or historic interest;
 - 1.4 the need to make any appropriate arrangements under the Highways Act 1980, in respect of any works within the limits of a highway. The address of the Highway Authority is County Hall, Trowbridge, BA14 8JD (It is the responsibility of the applicant to ascertain whether the proposed development affects any listed building or public right of way / other highway, including highway verge).
- 2 **Appeals.** If the applicant is aggrieved by the decision of the local planning authority to grant permission subject to conditions, he may appeal to the Secretary of State for the Environment in accordance with Section 78(1) of the Town and Country Planning Act 1990 within six months of the date of this decision. (Information and forms relating to the appeals process can be found at the Planning Portal - <http://www.planningportal.gov.uk/planning/appeals>).
- 3 **Climate Change.** Wiltshire Council acknowledges the climate emergency and is seeking to make the county carbon neutral. You are encouraged to include energy efficiency that exceeds building regulations and to meet residual energy demand through renewable energy and low-carbon technologies, including high levels of electric vehicle charging points. The developer is encouraged to contact the climate team to discuss this further. climate@wiltshire.gov.uk
- 4 **CIL.** The applicant is advised that the development hereby approved may represent chargeable development under the Community Infrastructure Levy Regulations 2010 (as amended) and Wiltshire Council's CIL Charging Schedule. A separate Community Infrastructure Levy Liability Notice will be issued by the Local Planning Authority. Should you require further information with regards to CIL please refer to the Council's Website [Community Infrastructure Levy \(CIL\) - Wiltshire Council](#)

Appendix C – Pluvial Catchment Assessment



RIDGE LINE FORMING 'WEIR' TO FLOWS ARISING EAST.
93.29mAOD IS THE LIMITING OVERTOPPING
ELEVATION, ALL INUNDATION AS A RESULT OF
PLUVIAL FLOWS LIMITED TO THAT ELEVATION.

0.028ha HARDSTANDING/ROOF AREA WITH NO
FORMAL DRAINAGE SYSTEM.

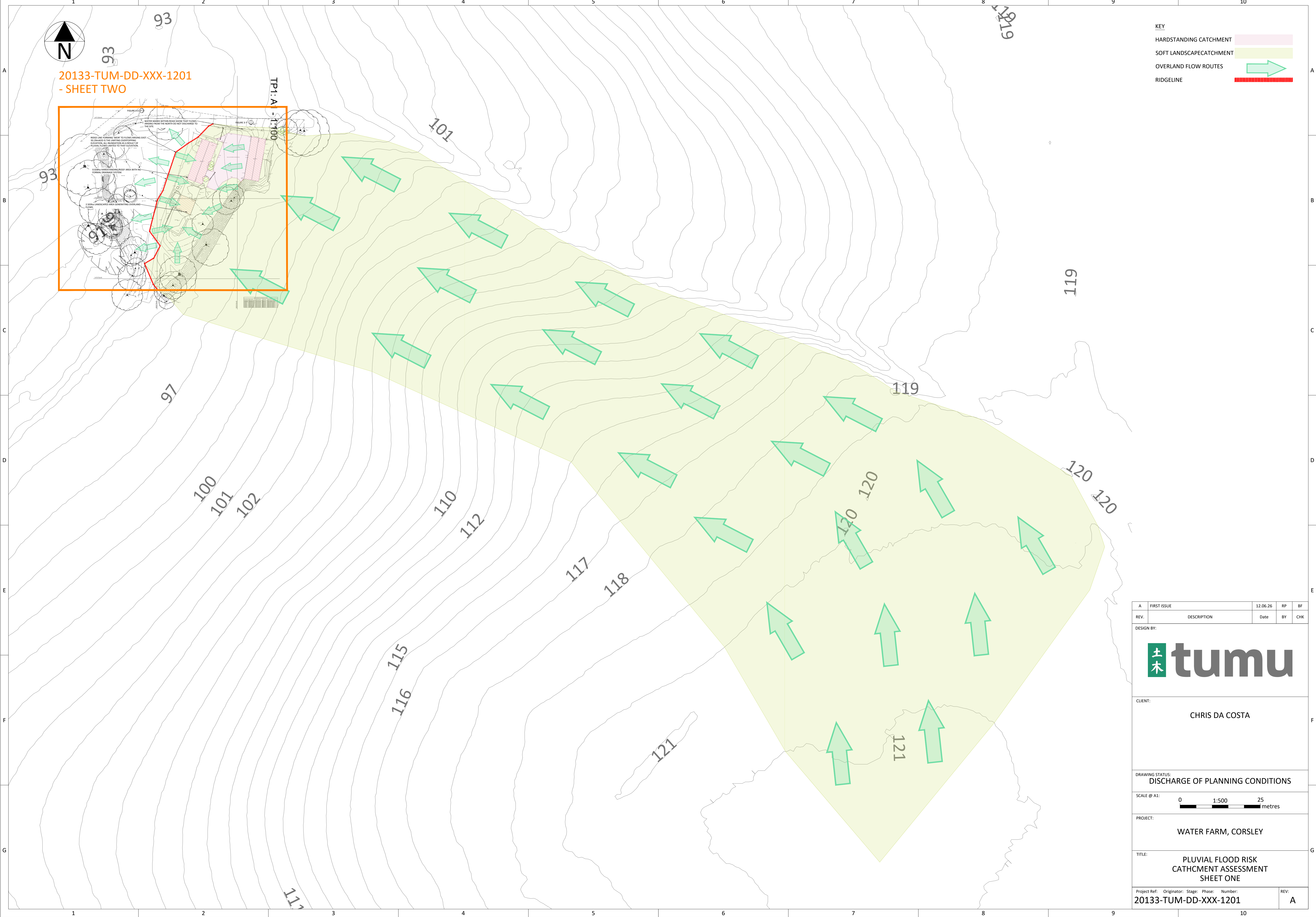
2.503ha LANDSCAPED AREA GENERATING OVERLAND
FLOWS.

WATER MARKS WITHIN ROAD SHOW THAT FLOWS
ARISING FROM THE NORTH DO NOT DISCHARGE TO
THE SITE.

FIGURE 3-7

- KEY
- HARDSTANDING CATCHMENT
 - SOFT LANDSCAPE CATCHMENT
 - OVERLAND FLOW ROUTES
 - RIDGELINE

A	FIRST ISSUE	10.06.26	RP	BF
REV.	DESCRIPTION	Date	BY	CHK
DESIGN BY:				
				
CLIENT:				
CHRIS DA COSTA				
DRAWING STATUS:				
DISCHARGE OF PLANNING CONDITIONS				
SCALE @ A1:				
0 1:100 5 metres				
PROJECT:				
WATER FARM, CORSLEY				
TITLE:				
PLUVIAL FLOOD RISK CATCHMENT ASSESSMENT SHEET TWO				
Project Ref: Originator: Stage: Phase: Number:				REV:
20133-TUM-DD-XXX-1200				A



Appendix D – Causeway FLOW Calculations

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
PA1	5.00	26.2	95.000	600	383012.114	147118.468	0.800	94.200
PA2			93.450	600	383002.777	147120.161	0.850	92.600
PA3			93.200	600	382997.003	147105.963	0.850	92.350
PA4			93.100	600	382989.317	147100.547	0.950	92.150
PA5	5.00	5.0	92.950	600	382977.327	147109.292	0.750	92.200
PA6			92.850	600	382971.971	147106.521	0.850	92.000
PA7		0.7	92.750	600	382963.858	147106.994	0.930	91.820
HW			92.000	225	382958.448	147107.280	0.250	91.750

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	PA1	PA2	9.489	0.600	94.200	92.600	1.600	5.9	225	5.03	46.2
1.001	PA2	PA3	15.327	0.600	92.600	92.350	0.250	61.3	225	5.18	45.3
1.002	PA3	PA4	9.403	0.600	92.350	92.150	0.200	47.0	225	5.26	44.9
1.003	PA4	PA6	18.346	0.600	92.150	92.000	0.150	122.3	225	5.52	43.7
2.000	PA5	PA6	6.030	0.600	92.200	92.000	0.200	30.2	150	5.05	46.4
1.004	PA6	PA7	13.544	0.600	92.000	91.820	0.180	75.2	225	5.67	42.9
1.005	PA7	HW	5.418	0.600	91.820	91.750	0.070	77.4	225	5.73	44.1

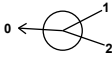
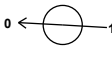
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	5.408	215.0	26.2	0.575	0.625	0.000	26.2	52	3.678
1.001	1.673	66.5	26.2	0.625	0.625	0.000	26.2	98	1.576
1.002	1.912	76.0	26.2	0.625	0.725	0.000	26.2	91	1.740
1.003	1.181	46.9	26.2	0.725	0.625	0.000	26.2	120	1.211
2.000	1.840	32.5	5.0	0.600	0.700	0.000	5.0	40	1.335
1.004	1.509	60.0	31.2	0.625	0.705	0.000	31.2	116	1.525
1.005	1.488	59.1	31.9	0.705	0.025	0.000	31.9	117	1.513

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	9.489	5.9	225	Circular	95.000	94.200	0.575	93.450	92.600	0.625
1.001	15.327	61.3	225	Circular	93.450	92.600	0.625	93.200	92.350	0.625
1.002	9.403	47.0	225	Circular	93.200	92.350	0.625	93.100	92.150	0.725
1.003	18.346	122.3	225	Circular	93.100	92.150	0.725	92.850	92.000	0.625
2.000	6.030	30.2	150	Circular	92.950	92.200	0.600	92.850	92.000	0.700
1.004	13.544	75.2	225	Circular	92.850	92.000	0.625	92.750	91.820	0.705
1.005	5.418	77.4	225	Circular	92.750	91.820	0.705	92.000	91.750	0.025

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	PA1	600	Manhole	Adoptable	PA2	600	Manhole	Adoptable
1.001	PA2	600	Manhole	Adoptable	PA3	600	Manhole	Adoptable
1.002	PA3	600	Manhole	Adoptable	PA4	600	Manhole	Adoptable
1.003	PA4	600	Manhole	Adoptable	PA6	600	Manhole	Adoptable
2.000	PA5	600	Manhole	Adoptable	PA6	600	Manhole	Adoptable
1.004	PA6	600	Manhole	Adoptable	PA7	600	Manhole	Adoptable
1.005	PA7	600	Manhole	Adoptable	HW	225	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
PA1	383012.114	147118.468	95.000	0.800	600				
						0	1.000	94.200	225
PA2	383002.777	147120.161	93.450	0.850	600		1	1.000	92.600
						0	1.001	92.600	225
PA3	382997.003	147105.963	93.200	0.850	600		1	1.001	92.350
						0	1.002	92.350	225
PA4	382989.317	147100.547	93.100	0.950	600		1	1.002	92.150
						0	1.003	92.150	225
PA5	382977.327	147109.292	92.950	0.750	600		0	2.000	92.200
						0	2.000	92.000	150
PA6	382971.971	147106.521	92.850	0.850	600		1	2.000	92.000
						2	1.003	92.000	225
						0	1.004	92.000	225
PA7	382963.858	147106.994	92.750	0.930	600		1	1.004	91.820
						0	1.005	91.820	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
HW	382958.448	147107.280	92.000	0.250	225	1 	1.005	91.750	225

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	2 year (l/s)	9.5
Rainfall Events	Singular	Drain Down Time (mins)	240	30 year (l/s)	21.0
Summer CV	1.000	Additional Storage (m³/ha)	0.0	100 year (l/s)	26.2
Winter CV	1.000	Starting Level (m)		Check Discharge Volume	x
Analysis Speed	Normal	Check Discharge Rate(s)	✓		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	0	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	FEH	Growth Factor 100 year	2.48
Positively Drained Area (ha)	2.508	Betterment (%)	0
SAAR (mm)	880	QMed	9.5
Host	1	QBar	10.6
BFIHost	0.587	Q 1 year (l/s)	
Region	1	Q 30 year (l/s)	
QBar/QMed conversion factor	1.111	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	PA1	1	94.253	0.053	26.2	0.0149	0.0000	OK
15 minute summer	PA2	2	92.705	0.105	26.2	0.0296	0.0000	OK
15 minute summer	PA3	3	92.450	0.100	26.2	0.0282	0.0000	OK
15 minute summer	PA4	1	92.291	0.141	26.2	0.0398	0.0000	OK
15 minute summer	PA5	2	92.240	0.040	5.0	0.0113	0.0000	OK
15 minute summer	PA6	1	92.135	0.135	36.3	0.0381	0.0000	OK
15 minute summer	PA7	4	91.957	0.137	31.9	0.0388	0.0000	OK
15 minute summer	HW	5	91.867	0.117	31.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	PA1	1.000	PA2	26.2	2.129	0.122	0.1194	
15 minute summer	PA2	1.001	PA3	26.2	1.498	0.394	0.2686	
15 minute summer	PA3	1.002	PA4	26.2	1.301	0.345	0.1994	
15 minute summer	PA4	1.003	PA6	31.3	1.232	0.667	0.4667	
15 minute summer	PA5	2.000	PA6	5.0	0.501	0.154	0.0615	
15 minute summer	PA6	1.004	PA7	31.2	1.294	0.520	0.3266	
15 minute summer	PA7	1.005	HW	31.9	1.382	0.539	0.1250	486.3

Appendix E – Pluvial Alleviation Layout

