

Project:	Clawdd Poncen, Corwen	Scheme No:	16722
Subject:	Outline Drainage Strategy	Revision:	01
Client:	Williams Homes (Bala) Ltd	Date:	13/10/25
Doc Ref:	16722-251013-Outline Drainage Strategy-01	Status:	First Issue
Author:	Adam Vale BEng (Hons)		
Checker:	Adam Caldwell MEng (Hons)		
Approver:	Nigel Jones BEng (Hons) CEng MICE		

Introduction

Waterco Datrys have been instructed to prepare an outline drainage strategy in respect of a proposed 99no. plot housing development adjacent to Clawdd Poncen, Corwen, to support the planning application.

Existing Drainage

1. The site is a sloping greenfield site from north to south adjacent to Clawdd Poncen, Corwen with a drainage ditch along the southern boundary of the site.
2. The ground profile of the site falls from Northwest to Southwest with an elevation difference of 168.750m to 161.500m. The contours on site are generally equally spaced and run parallel to the southern boundary.
3. There is an existing $\varnothing 150\text{mm}$ foul sewer located in the adjacent housing estate along the southern site boundary which connects to an existing pumping station located immediately adjacent to the southern boundary of the site. Pumping station flows are then pumped to a chamber located on the industrial estate to the northeast where a number of other pumped networks connect with the gravity sewer.
4. GIS Mapping suggests that there are no other existing live drainage systems within the site boundary.

Foul

1. A Pre-Planning application (**PPA0009520**) was made to DCWW by Williams Homes relating to the proposed site for 99no. plots. The subsequent response received 24.07.25 stated that it is unlikely that sufficient capacity exists within the immediate adjacent public sewerage system. It was recommended that the developer undertakes a development enabling assessment to identify a solution for mitigating the impact of the proposed development. However, it did state that no problems are envisaged with the Corwen Wastewater Treatment Works (to which the network discharges to) in terms of capacity. The wastewater treatment works discharges to the River Dee and Bala Lake 'Special Conservation Area' to which the DCWW process Scientist communicated that they have no concern with the available headroom in the phosphates permit.
2. In light of the above the developer (Williams Homes) has instructed for a development enabling assessment to be undertaken by DCWW. The enabling assessment is due for completion and discussions are planned to take place imminently on the preliminary findings in order to discuss a way forward.
3. Given the need to by-pass the pumped network immediately to the south of the site due to capacity concerns, a gravity connection is not viable. A pumped solution has been proposed which will pump flows to chamber SJ07445702, located southeast of the adjacent industrial estate subject to the findings of the

DCWW assessment.

4. The proposed onsite foul drainage will be offered for adoption under a Section 104 agreement with DCWW, with a type 3 pumping station compound incorporated into the site layout, with the wet well being located a minimum of 15m from any habitable dwelling.

Surface Water

Disposal of surface water is summarised as follows:

1. Porosity testing has not yet been undertaken however due to the limited space on site it is considered unlikely that there is sufficient space for soakaways to be located within the available area of the site where the dwellings are to be located. Once porosity testing has been undertaken and if the results indicate infiltration is suitable then where possible soakaways will be utilised. However, due to the limitations with regards to the soakaways it is likely that a large attenuation basin will be required in the adjoining parcel of land to the southwest of the site in order to achieve the necessary storage.
2. Should infiltration not be viable then an offsite solution will be required for surface water disposal. The ditch along the southern boundary draining to the southwest is the favourable option with the discharge rate limited to the greenfield rate. In the event of attenuation being required, a proposed detention basin located in the land adjacent to the southwest corner will provide storage for up to the threshold design event (1 in 100yr) including for a 30% allowance for climate change and 10% urban creep.
3. The proposals will also aim to incorporate various SuDS features in order to meet water quality, amenity and biodiversity requirements through the use of raingardens, swales and a detention basin, with parking bays consisting of porous paving where possible. The implementation of individual plot features such as waterbutts and individual raingardens to each plot will be considered for the SAB submission.
4. A SAB pre-application will be submitted in due course to ascertain initial feedback from SAB officer to inform the planning submission and SAB application.

Supporting Information References

- **APPENDIX A:** PPA0009520 (date received 24.07.25)
- **APPENDIX B:** PPA0009520 Sewer Plan
- **APPENDIX C:** Email Correspondence
- **APPENDIX D:** 16722-2000P01 Proposed Drainage Scheme

APPENDIX A –**PPA0009520 (date received 24.07.25)**

Mr Daryl Davies
Williams Homes (Bala) Ltd
unit 18-19 Enterprise Park
Bala
Gwynedd
LL23 7NL

Date: 24/07/2025
Our Ref: PPA0009520

Dear Mr Davies

Grid Ref: 307237 344664
Site Address: Land at Clawdd Poncen, Corwen, Denbighshire
Development: Residential housing development of 100 units.

I refer to your pre-planning enquiry received relating to the above site, seeking our views on the capacity of our network of assets and infrastructure to accommodate your proposed development. Having reviewed the details submitted I can provide the following comments which should be taken into account within any future planning application for the development.

APPRAISAL

Firstly, we note that the proposal relates to the erection of 100 residential units at land at Clawdd Poncen, Corwen, Denbighshire and acknowledge that the site is allocated (Ref. BSC1 Housing allocation or Housing commitment) within the Local Development Plan (LDP) for 128 units.

In reference to our representations during the LDP consultation process, we can confirm that an assessment has been undertaken of the public sewerage and watermains systems to accommodate the housing allocation and informs our appraisal as follows.

PUBLIC SEWERAGE NETWORK

The proposed development site is located in the immediate vicinity of a predominantly separate sewerage foul and surface water public sewers, which drains to Corwen Wastewater Treatment Works (WwTW) via the Corwen pumping station and a combined system.

This catchment discharges into national and international designated waters, comprising the River Dee and Bala Lake 'Special Conservation Area'. A key fundamental issue associated with any proposed developments in these catchment areas is the potential impact on nutrient neutrality and the consideration for potential mitigation measures as part of new developments.

This site includes a section of a public 375mm gravity storm overflow with the approximate position being marked on the attached Statutory Public Sewer Record. In accordance with the Water Industry Act 1991, Dwr Cymru Welsh Water requires access to its apparatus at all times in order to carry out maintenance and repairs. No part of any building will be permitted within the protection zone of the public sewer measured 4 metres either side of the centreline. Please note, the distance specified for this protection zone is indicative and based on industry standard guidelines. However, the depth of the asset will need to be verified on site which may infer a greater protection zone. For completeness, we recommend the developer refer to their title deeds to confirm if there are any covenants or restrictions associated with the asset(s) crossing the proposed development site.

In addition, the proposed development site is within close proximity to a public Sewerage Pumping Station. We would like to advise the developer that no habitable buildings be constructed within 15m of this asset as to minimise any effects of noise and odour nuisance.

Accordingly, it is recommended that the developer contact our Plan and Protect team (PlanandProtect@dwrcymru.com) to carry out a survey to verify the location of this asset and establish its relationship to the proposed development. Our strong recommendation is that your site layout takes into account the location of the assets crossing the site and should be referred to in any master-planning exercises or site layout plans submitted as part of any subsequent planning application. Further information regarding Asset Protection is provided in the attached Advice & Guidance note.

You are also advised that some public sewers and lateral drains may not be recorded on our maps of public sewers because they were originally privately owned and were transferred into public ownership by nature of the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011. The presence of such assets may affect the proposal. In order to assist you may contact Dwr Cymru Welsh Water on 0800 085 3968 to establish the location and status of the apparatus in and around your site. Please be mindful that under the Water Industry Act 1991 Dwr Cymru Welsh Water has rights of access to its apparatus at all times.

SURFACE WATER DRAINAGE

As of 7th January 2019, this proposed development is subject to Schedule 3 of the Flood and Water Management Act 2010. The development therefore requires approval of Sustainable Drainage Systems



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We welcome correspondence in
Welsh and English

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Wales no 2366777. Registered office: Pentwyn Road,
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(SuDS) features, in accordance with the 'Statutory standards for sustainable drainage systems – designing, constructing, operating and maintaining surface water drainage systems'. As highlighted in these standards, the developer is required to explore and fully exhaust all surface water drainage options in accordance with a hierarchy preferring infiltration (PL2) and, where infiltration is not possible, disposal to a surface water body (PL3), in liaison with the Lead Local Flood Authority and/or Natural Resources Wales, or surface water sewer or highway drain (PL4) in liaison with the riparian owner and/or Local Highways Authority. Please be advised that due to capacity constraints with the downstream public sewerage network, under no circumstances would we allow surface water runoff highway run-off from the proposed development to communicate directly or indirectly with the public combined sewerage system. Please note, no amount of land drainage run-off is permitted to discharge directly or indirectly into the public sewerage system.

Furthermore, Planning Policy Wales (PPW) acknowledges that discharge of surface water to foul sewers is prohibited and highlights that any additional surface water from new developments should not be discharged to combined systems because of the risk of pollution when combined systems overflow (Para 6.6.3). Moreover, PPW recognises the challenges faced from rainfall intensity causing surface water flooding and diffuse pollution (Para 6.6.14) along with the importance of well-maintained sewerage networks (Para 6.6.15), particularly as a result of run-off from built surfaces and the sewage discharges from overloaded sewers (Para 6.6.16).

It is therefore recommended that the developer consult with Denbighshire County Council, as the determining SuDS Approval Body (SAB), in relation to their proposals for SuDS features. Please note, DCWW is a statutory consultee to the SAB application process and will provide comments to any SuDS proposals by response to SAB consultation. Please refer to further detailed advice relating to surface water management included in our attached Advice & Guidance note and our Developer Services website at <https://developers.dwrcymru.com/en/help-advice/regulation-to-be-aware-of/sustainable-drainage-systems>.

In addition, please note that no highway or land drainage run-off will be permitted to discharge directly or indirectly into the public sewerage system.

FOUL WATER DRAINAGE – SEWERAGE NETWORK

We have considered the impact of foul flows generated by the proposed development and concluded it is unlikely that sufficient capacity exists to accommodate your development within the immediate public sewerage system without causing detriment to the existing services we provide to our customers, or in regard to the protection of the environment. There are no planned reinforcement works within Dwr



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Cymru Welsh Water's Capital Investment Programme and therefore, at this stage, we are unable to provide you with a point of adequacy on the network.

In light of the above, our recommendation is that the developer undertakes a development enabling assessment to identify a solution for mitigating the impact of the proposed development. This may include the removal of surface water flows from the immediate public sewerage system to offset the new foul flows from the development. Where this is not possible, the identification of an alternative reinforcement solution to the network via further hydraulic modelling will be required to identify suitable off-site reinforcement works to the public sewerage system

Please note that we will seek to control the identification and delivery of a solution via appropriate planning conditions and therefore recommend that a development enabling assessment is undertaken in advance of a planning application being submitted, in order to avoid any subsequent delays. Please contact us to discuss further on this matter.

You may need to apply to Dwr Cymru Welsh Water for any connection to the public sewer under Section 106 of the Water Industry Act 1991. However, if the connection to the public sewer network is either via a lateral drain (i.e. a drain which extends beyond the connecting property boundary) or via a new sewer (i.e. serves more than one property), it is now a mandatory requirement to first enter into a Section 104 Adoption Agreement (Water Industry Act 1991). The design of the sewers and lateral drains must also conform to the Welsh Ministers Standards for Foul Sewers and Lateral Drains, and conform with the publication "Sewers for Adoption"- 7th Edition. Further information can be obtained via the Developer Services pages of www.dwrcymru.com.

FOUL WATER DRAINAGE - SEWAGE TREATMENT

No problems are envisaged with the Waste Water Treatment Works for the treatment of domestic discharges from this site.

POTABLE WATER SUPPLY

The water supply system in the immediate vicinity has insufficient capacity to serve the development and will also cause detriment to existing customers' water supply. The applicant is advised that as part of any future water connection application under Section 41 of the Water Industry Act (1991), a hydraulic modelling assessment and the delivery of reinforcement works may be required at the same time as the provision of new water mains to serve the new development under Section 41 and Section 51 of the Water Industry Act (1991).



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Information relating to our Hydraulic Modelling Assessment process is available on our website and within our guidance notes. The area planning officer will also be able to provide you with information relating to this process.

I trust the above information is helpful and will assist you in forming water and drainage strategies that should accompany any future planning application. I also attach copies of our water and sewer extract plans for the area, and a copy of our Planning Guidance Note which provides further information on our approach to the planning process, making connections to our systems and ensuring any existing public assets or infrastructure located within new development sites are protected.

Please note that our response is based on the information provided in your enquiry and should the information change we reserve the right to make a new representation. Should you have any queries or wish to discuss any aspect of our response please do not hesitate to contact our dedicated team of planning officers, either on 0800 917 2652 or via email at developer.services@dwrcymru.com

Please quote our reference number in all communications and correspondence.

Yours faithfully,

Matthew Lord
Planning Liaison Manager
Developer Services

Please Note that demands upon the water and sewerage systems change continually; consequently the information given above should be regarded as reliable for a maximum period of 12 months from the date of this letter.



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APPENDIX B –**PPA0009520 Sewer Plan**



14/10/2025



Scale: 1: 2209



Dwr Cymru Cyfyngedig (the Company) gives this information as to the position of its underground apparatus by way of general guidance only and on the strict understanding that it is based on the best information available and no warranty as to its correctness is relied upon. In the event of excavations or other works made in the vicinity of the company's apparatus and any onus of locating the apparatus before carrying out any excavations rests entirely on you. The information which is supplied hereby the company, is done so in accordance with statutory requirements of sections 198 and 199 f the water industry Act 1991 based upon the best information available and in particular, but without prejudice to the generality of the foregoing, it should be noted that the records that are available to the Company may not disclose the existence of a drain sewer or disposal main laid before 1 September 1989, or if they do, the particulars thereof including their position underground may not be accurate. It must be understood that the furnishing of this information is entirely without prejudice to the provision of the New Roads and Street Works Act 1991 and the company's right to be compensated for any damage to its apparatus.

**EXACT LOCATION OF
ALL APPARATUS TO
BE DETERMINED ON
SITE**

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Whilst every reasonable effort has been taken to correctly record the pipe material of DCWW assets, there is a possibility that in some cases pipe material (other than Asbestos Cement or Pitch Fibre) may be found to be Asbestos Cement (AC) or Pitch Fibre (PF). It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation

**APPENDIX C –
Email Correspondence**

Adam Vale

From: Adam Caldwell
Sent: 10 October 2025 14:46
To: Tony Hughes
Cc: Owain Williams; Kane Williams; Penny Lofts; Adam Vale
Subject: Clawdd Poncen Phosphates & network capacity HMA
Attachments: RE: 16722 - Clawdd Poncen, Corwen - Pumping Station Flow Rate - PPA0009520 [Filed 14 Aug 2025 17:21]; FW: Clawdd Poncen HMA progression

Hi Tony,

Re phosphates:

- Williams Homes submitted DCWW pre-app and the response, received 24.7.25 gave no comment on phosphates aspect.
- During a meeting with DCWW on 13th August we raised the need for clarity on phosphates.
- Followed up with email on 14th August for need for clarity.
- Matthew Lord (DCWW Planning Liaison Manager) emailed on 14.8.25 with the following (which was fairly conclusive confirmation):
'We currently have a backstop permit of 5mg/l in place until we deliver a scheme to meet a refused permit of 1 mg/l by 31st Dec 2025.
Our process Scientist has no concern with available headroom in the phosphate permit and the scheme will build in future growth.'

Re network & treatment works capacity:

- The pre-app response confirmed there were no issues with receiving the proposed foul flows from the proposed development into the wastewater treatment works. They did however highlight concern relating to the network local to the site to receive further flows.
- During a meeting with DCWW on 14.8.25 discussed by-passing the immediate concern of the adjacent network and connect further downstream where the network consists of gravity pipework (as opposed to pumping stations).
- DCWW confirmed the need for an assessment and Williams Homes have made payment to commence the Hydraulic Modelling Assessment.
- DCWW have advised that the assessment is in progress and a meeting is to be arranged imminently to discuss initial options that have been considered.

Adam Caldwell MEng (Hons)
Senior Civil Engineer

☎ 01286 800 396
✉ adam.caldwell@waterco.co.uk



APPENDIX D –**16722-2000P01 Proposed Drainage Scheme**



INDIVIDUAL PLOTS TO HAVE WATERBUTTS
AND SUDS FEATURES - SUBJECT TO LEVELS
AND DETAILED DESIGN

ALL PARKING BAYS WITHOUT POROUS
PAVING TO HAVE ACOs/GULLIES
INCORPORATED

OUTLINE DESIGN FOR S.W BASED ON
ATTENUATION SOLUTION USING SOIL
TYPE 2 AND GREENFIELD RUNOFF RATE
EQUIVALENT TO THE THRESHOLD DESIGN
EVENT. POROSITY TESTING YET TO BE
UNDERTAKEN. WILL BE CARRIED OUT IN
ADVANCE OF PLANNING SUBMISSION AND
S.W SOLUTION ADJUSTED TO SUIT
SHOULD TESTING RESULTS CONFIRM
INFILTRATION TO BE FEASIBLE

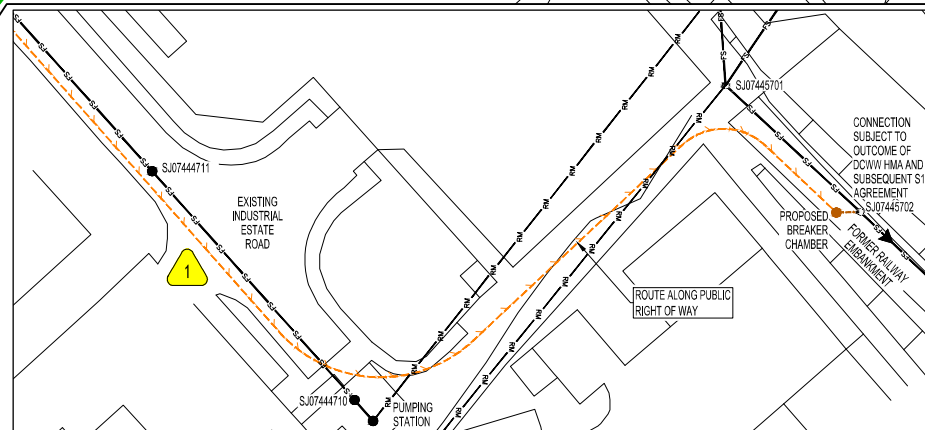
Council
Yard

Proposed new site
entrance

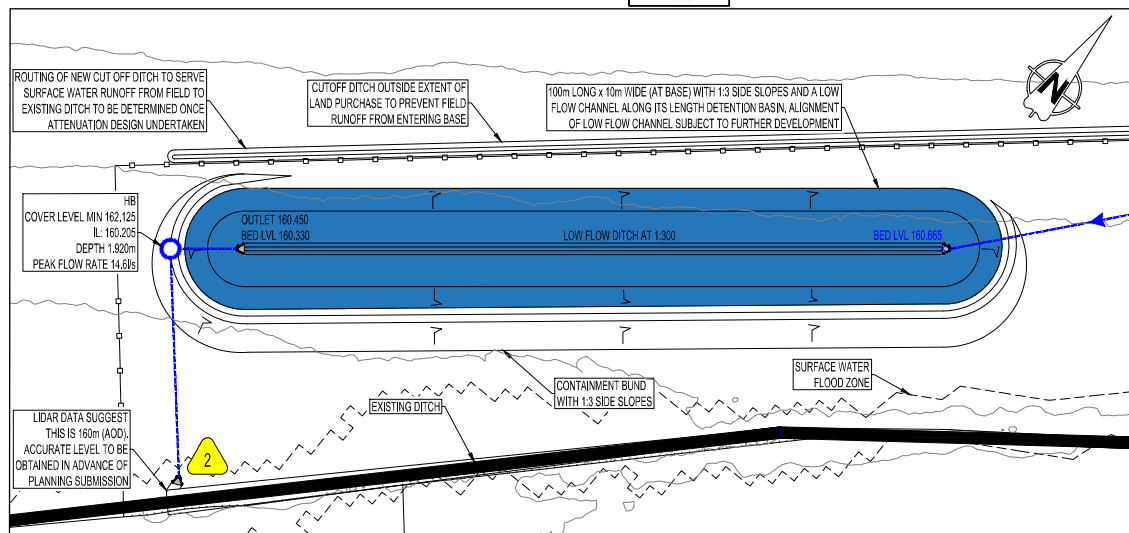
Chapel

Surface Water
Flood Risk Zone

HAZARD WARNING TABLE	
REFER TO DESIGNER'S RISK ASSESSMENT DOCUMENT FOR DETAILS	
SIGNIFICANT / UNUSUAL HAZARD	
1	EXISTING UTILITIES - RISK OF RISING MAIN CLASHING WITH EXISTING UTILITIES (BT, ELECTRIC, LP GAS MAIN & WATERMANS)
2	EXISTING DITCH - RECEIVING DOWN PUMP STATION STORM OVERSPILL CONNECTION



INSET A
1:500



INSET B
1:500

NOTES

- TOPOGRAPHICAL SURVEY DATA SHOWN HAS BEEN CARRIED OUT BY RSK GEOSCIENCES GEOSPATIAL.
- THE POSITIONS OF THE APPARATUS OF STATUTORY UNDERTAKERS, HIGHWAY AUTHORITIES AND OTHERS CLOSE TO THE WORKS HAVE BEEN PROVIDED FOR INFORMATION ONLY. NO WARRANTY IS GIVEN AS TO THE ACCURACY OR COMPLETENESS OF THIS INFORMATION AND ERRORS AND OMISSIONS SHALL NOT BE TAKEN AS A CHANGE TO THE WORKS INFORMATION OR SCOPE OF WORKS. IN PARTICULAR, NO SERVICE CONNECTIONS TO INDIVIDUAL PROPERTIES ARE SHOWN. WHERE SERVICES ARE NOT SHOWN THIS SHALL NOT BE TAKEN AS EVIDENCE THAT NO SERVICES ARE PRESENT AND THE CONTRACTOR SHALL ENSURE HE HAS CONSULTED ALL RELEVANT RECORDS. THE CONTRACTOR SHALL CHECK AND CONFIRM THE POSITION OF ALL SERVICES PRIOR TO EXCAVATION.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECTS, CONSULTANTS AND OTHER ENGINEERS.
- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH CESM 8 (CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY (8TH EDITION))

KEY

- DEVELOPMENT BOUNDARY
- EXISTING FOUL WATER DRAIN / SEWER AND CHAMBER
- EXISTING FOUL RISING MAIN
- PROPOSED FOUL WATER SEWER AND CHAMBER
- PROPOSED FOUL WATER RISING MAIN
- PROPOSED SURFACE WATER DRAIN AND CHAMBER
- PROPOSED SWALE
- PROPOSED DETENTION BASIN
- PROPOSED PERMEABLE PAVING
- PROPOSED PERFORATED PIPE

SITE LOCATION

GRID REFERENCE: 307288, 344696
SITE ADDRESS: CLAWDD PONCEN,
CORWEN,
DENBIGHSHIRE
LL21 9YB



CAUTION: THE MANAGEMENT AND DESIGN OF ANY AND ALL TEMPORARY WORKS REQUIRED TO EXECUTE THIS DESIGN ARE THE RESPONSIBILITY OF THE CONTRACTOR.

P01	13/10/25	FIRST ISSUE	AV	AC	NJ
REV	DATE	DESCRIPTION	ORG	CHK	APP

CLIENT

Williams
Homes (Bala) Ltd

PRINCIPAL DESIGNER

AINSLEY GOMMON ARCHITECTS

Waterco

Waterco Ltd., Eden Court,
Lon Parcw Business Park, Ruthin LL15 1NJ

tel (+44) 1824 702220
www.waterco.co.uk

SCHEME

CLAWDD PONCEN,
CORWEN

TITLE

PROPOSED DRAINAGE SCHEME

ORIGINATOR A.VALE	CHECKER A.CALDWELL	APPROVER N.JONES
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STATUS

PRELIMINARY

SCALE / SHEET SIZE 1:500 / A1	REV P01
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DRAWING NUMBER

16722-2000

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