

Technical Note

Project:	P17-480 Indurent Park, Newport
Subject:	S23 Drain 5 Temporary Weir and Penstock
Date:	February 2025
Document Reference:	17480-RLL-25-XX-RP-O-1290-P03
Prepared by:	Chris Wilson – Principal Geo-Environmental Consultant, Rodgers Leask Limited
Reviewed by:	Howel Morris - Director, Rodgers Leask Limited

Introduction

Rodgers Leask Ltd (RLL) have prepared this Technical Note to set out the background to the recently approved applications under Section 23 of the Land Drainage Act of 1991 (S23 applications) to inform planning considerations at Indurent Park Newport. The S23 application relates to the installation of a weir and a weir/ penstock in Drain 5, located on the former Llanwern Steelworks, Newport henceforth referred to as 'Site'. The weir and weir/ penstock were requested by Tata to allow water testing to be undertaken to confirm suitability prior to it being discharged into the Tata network.

The S23 application for the installation of weir and weir/ penstock in Drain 5 was consented by NRW in December 2024.

The proposed temporary infrastructure is shown on Drawing 17480-RLL-XX-DR-O-1282-P06 (Drain 5 Penning Proposal).

The infrastructure location is presented on Drawing 17480-RLL-XX-DR-O-1284-P02.

S23 Background

Surface water on the Site presently discharges to the River Severn via the Tata surface water discharge permit and there is no change proposed as part of this matter.

The current discharge agreement between Tata and Indurent (formerly St. Modwen Logistics) comes to an end in February 2025. To extend the agreement whilst drainage arrangements for the Site are agreed and implemented, Tata's risk management team requested the installation of a temporary weir to pen a section of Drain 5 where water testing can be undertaken to confirm suitability prior to it being discharged into the Tata network.

The approved S23 consent (presented in **Appendix A**) includes the installation of a temporary weir and a temporary weir/ penstock in Drain 5 to manage water being discharged from the Site into the Tata Network. The weir and weir/ penstock are intended to 'pen' sections of watercourse where water will be held to allow for sampling before being released. The installation will also allow the system to free-flow over the weir above 4.5mAOD during high water levels, working in both directions during a flood event.

It is important to note that the works approved under the S23 consent do not propose any change to the current water network routing. All reens remain open allowing water to freely pass into and out of the water system on the Site. Surface water continues to travel into the Tata Middle East West Ditch (MEWD) then out to the Severn Estuary via Tata's Discharge Permit, routing is shown on drawing 18669-RLL-24-XX-DR-O-0655-P01.

Site Water Levels

At present water levels in reens is controlled by the rate in which Tata are able to discharge water from the MEWD into the Severn Estuary via their consented discharge. This subsequently influences the amount of water that is able to leave the site through Drain 5 (north).

Water levels at Drain 5, in it's current interim state, are rarely below 4.0mAOD.

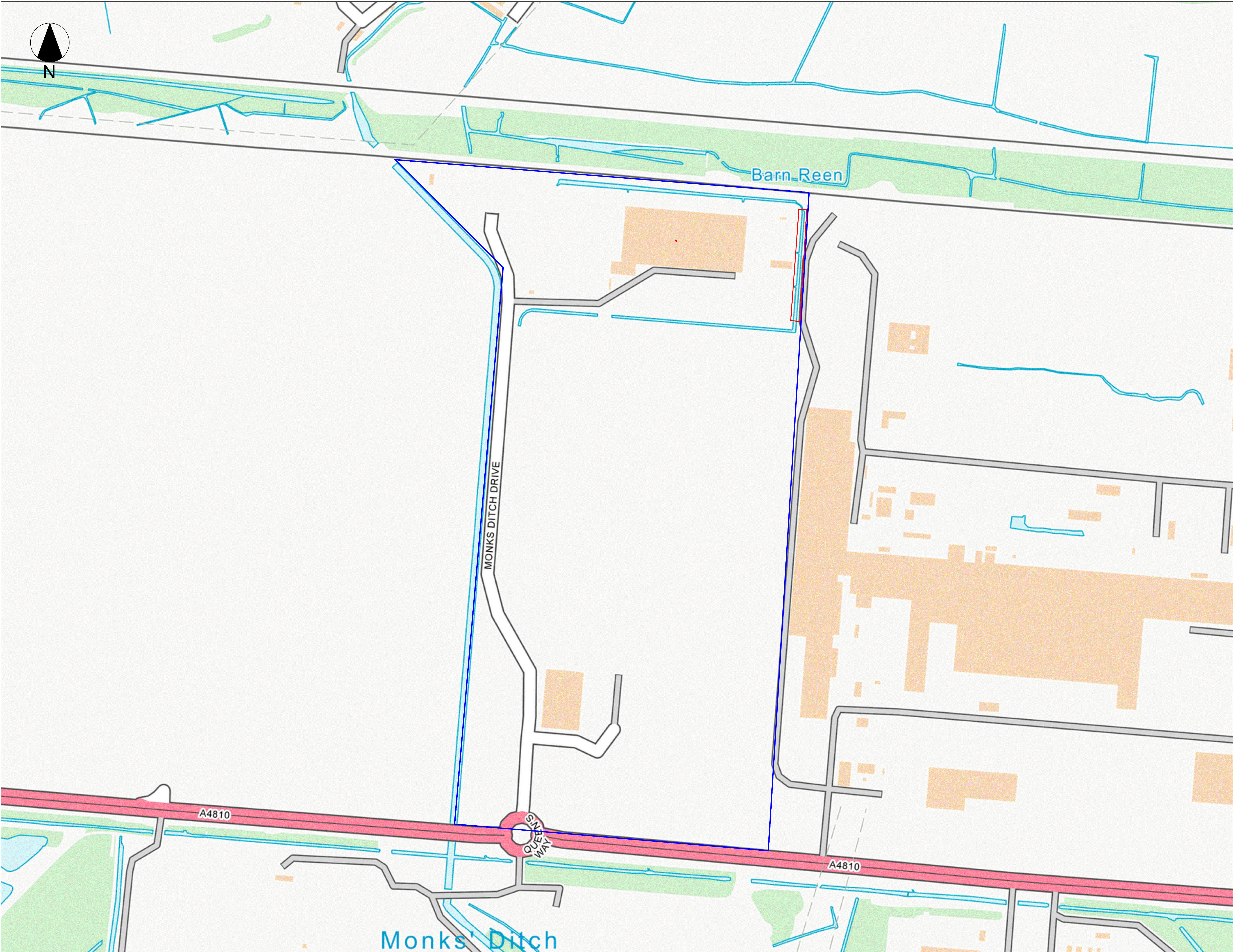
The invert level of the reen on site is 3.1mAOD, the proposed water level behind the weir is 4.5mAOD. The approved planning drawings (reliant on approval of the discharge permit) show a normal operating level between 3.4mAOD and 4.5mAOD, severe storm levels of 5.3mAOD and a flood level of 6.5mAOD. The approved S23 infrastructure is within the normal range at 4.5mAOD.

Conclusions

This Technical Note has been prepared by RLL to set out the background for the proposed installation of a weir and a weir/ penstock in Drain 5 to inform planning considerations.

On approval of a discharge permit to Monk's Ditch, the temporary infrastructure shall be removed (following further S23 applications (land drainage) and the system shall there onwards be able to operate in accordance with the approved drainage strategy.

Drawings



GENERAL NOTES

NO DIMENSIONS TO BE SCALED OFF THIS DRAWING.
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS.
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

KEY:

- Approximate Indurent ownership Boundary
- Proposed ree penning section

P02	10/02/25	Updated Scale	ET	CW
P01	22/10/2024	First Draft	ET	CW
Rev	Date	Amendments	By	Chk

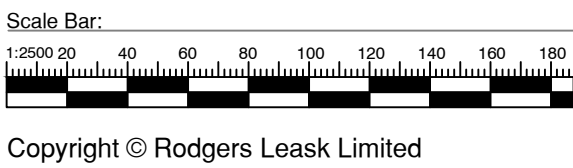


Client
St. Modwen Developments

Project
P17-480
Indurent Park Newport

Drawing Title
Drain 5 penning section
location plan

S2	Drawn	Checked	Date
1:2500 @ A1	ET	CW	10/02/25
Drawing No.	Rev.		
17480-RLL-24-XX-DR-O-1284	P02		



General Notes

1. This drawing is to be read in conjunction with all other relevant Engineering and Architect's details.
2. All dimensions are in metres unless otherwise stated.
3. The Contractor shall be responsible for checking all tie-ins for line and level with existing foul and surface water systems before commencing any works.
4. The Engineer shall be notified immediately, in writing, should any errors or discrepancies be found prior to the commencement or continuation of any works.
5. All work is to be carried out in accordance with current British Standards, Building Regulations.
6. All drainage work is to be strictly in accordance with the requirements of the Building Regulations 2015, Approved Document Part H, "Drainage and waste disposal".
7. It is the responsibility of the Contractor to execute the works at all times in strict accordance with the requirements of the Health and Safety at Work Act 1974, and the C.D.M. Regulations 2015. The Contractor will be deemed to have allowed for full compliance, including full liaison with the Principle Designer, within his rates.
8. All existing land drains encountered on site during construction are to be re-connected.
9. Should any departure from the proposed slab or external levels be considered, agreement shall be sought from the Engineer immediately and prior to the commencement or continuation of any works. Proposals should take full account of all restrictions to the slab level.
10. Temporary protection to be provided to drainage work during construction as necessary.

KEY:

- Temporary Weir Structure to 4.5m AOD
- Temporary Penstock / Sluice Gate to 4.5m AOD
- Water Monitoring Position
- Reen

ANY WORKS UNDERTAKEN PRIOR TO RECEIPT OF TECHNICAL APPROVAL FOR THEIR RESPECTIVE PROPOSALS IS DONE AT THE CONTRACTOR'S OWN RISK.

1. Working close to steep or difficult ground.
2. Working close to Reen.

Health & Safety Information Key

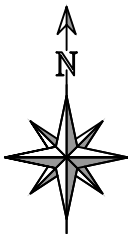
- Used to provide design specific safety information that may not be obvious to a competent contractor but may be useful.
- Used to restrict/prevent a possible action, eg. stop construction traffic from entering an area.
- Used to warn of significant design hazards, adding recommendations
- Used to encourage a positive action, e.g. use of robust protection for inspection chambers

Rev	Date	Amendments	By	Chk
P06	13/02/2025	Client Comments	ET	CW
P05	11/02/2025	Client Comments	ET	CW
P04	29/10/2024	Updated Water level	ET	CW
P03	22/10/2024	Third Draft	ET	CW
P02	03/10/2024	Second Draft	AMS	CW
P01	01/10/2024	First Draft	AMS	CW



Client	Indurent Management
Project	Indurent Park Newport
Drawing Title	Drain 5 Temporary Penning Proposal
Status	For Information
Scale	NTS
Drawn	ET
Checked	CW
Date	11/02/25
RLL Project/Drawing Number	17480-RLL-24-XX-DR-O-1282
Revision	P06
Copyright	© Rodgers Leask Limited

Proposed Penstock / Weir to 4.5 m AOD.

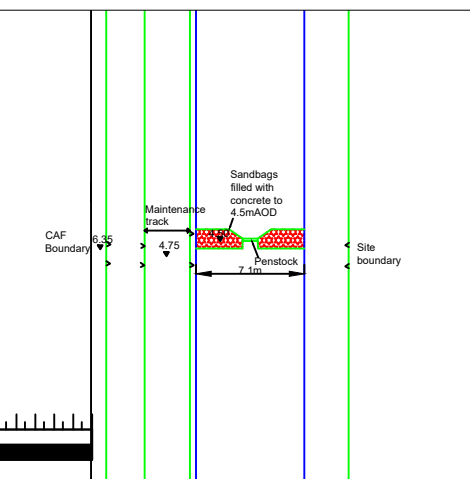
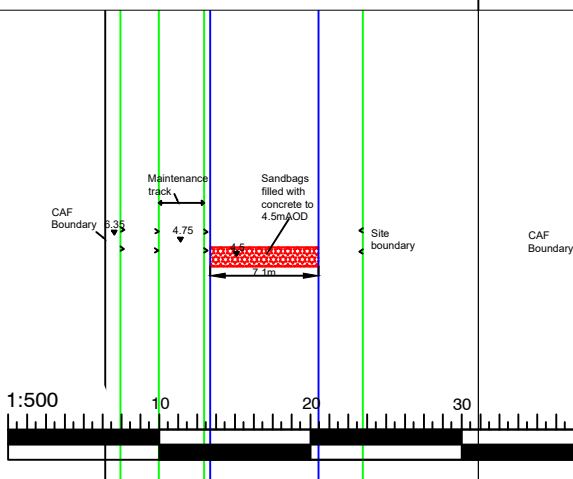


Volume Capacity at 4.5m AOD: 726m³ - 1,398m³

Proposed Weir Structure to 4.5 m AOD.

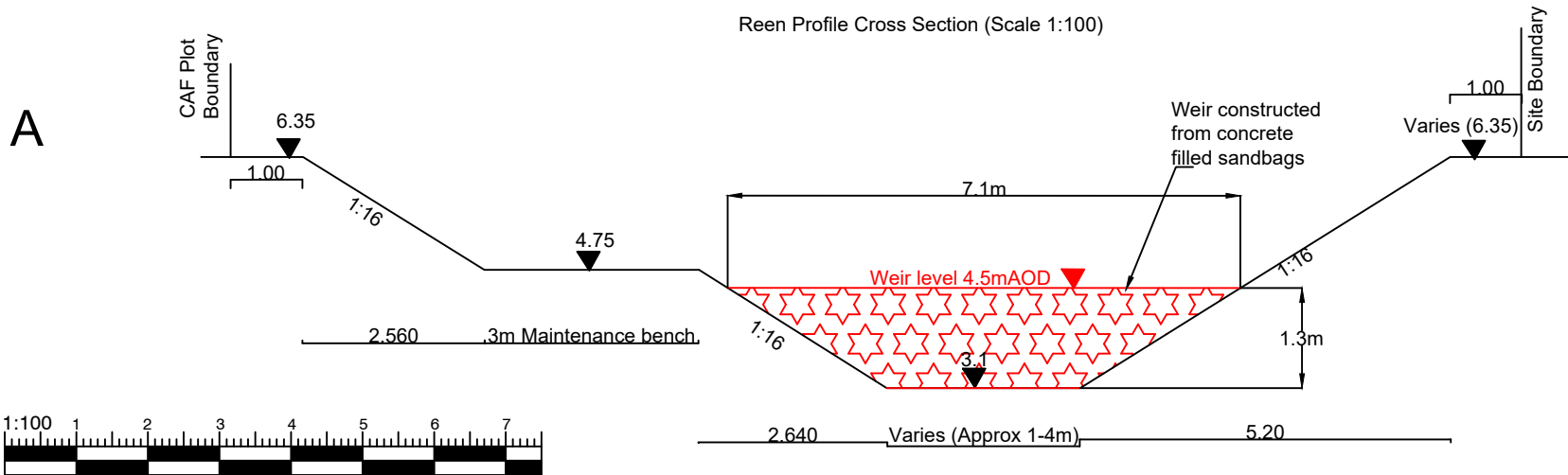
Weir Plan View (Scale 1:500)

Penstock Plan View (Scale 1:500)



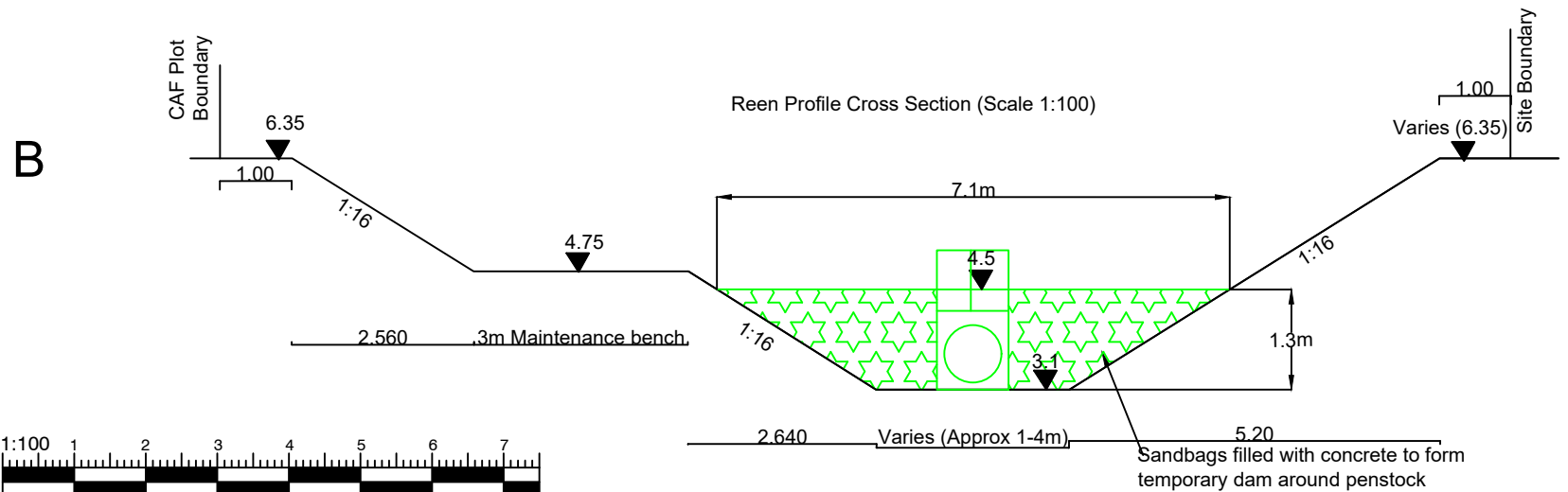
i) Rectangular Weir Cross Section

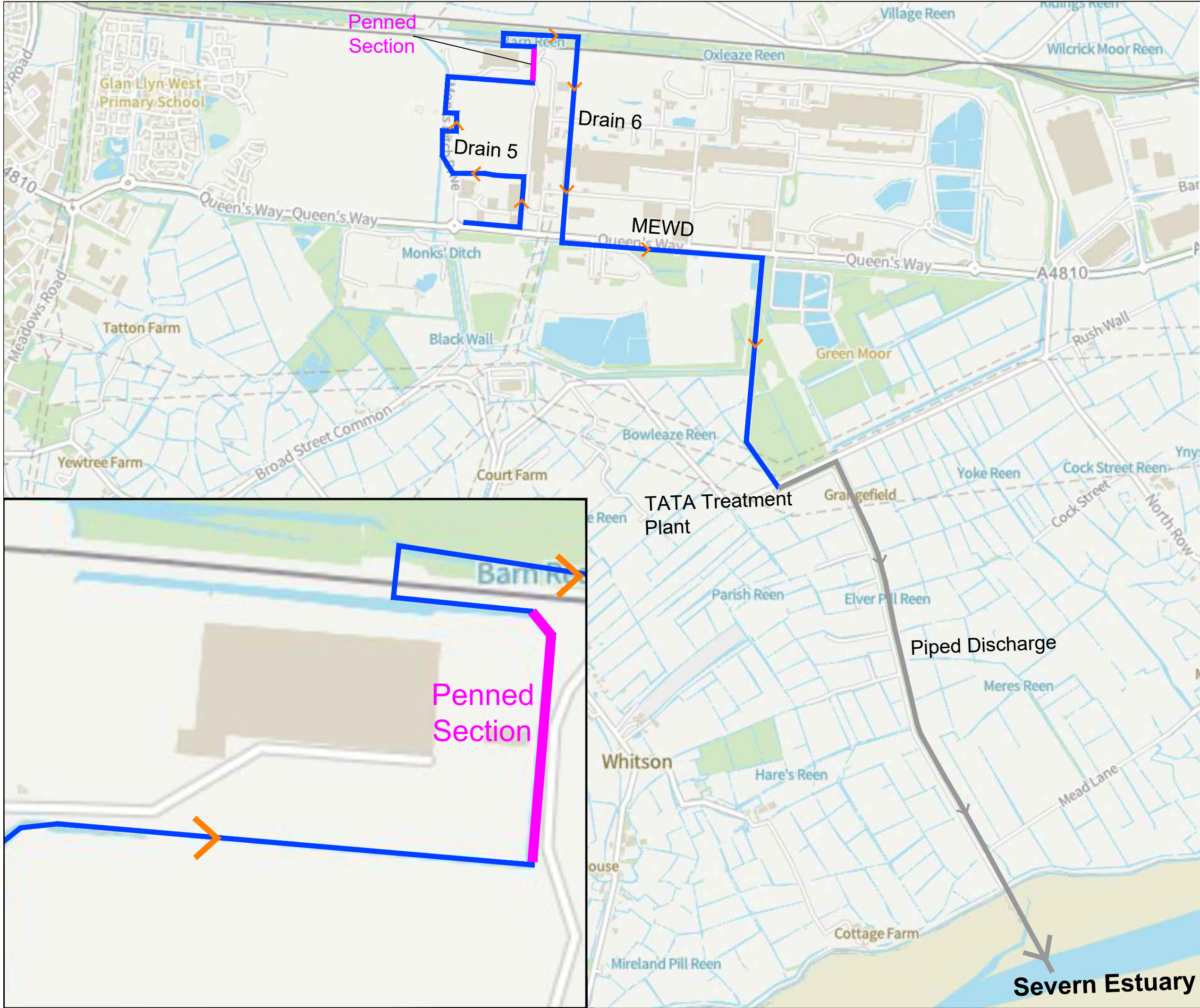
Reen Profile Cross Section (Scale 1:100)



ii) Purposed Penstock / Sluice Gate

Reen Profile Cross Section (Scale 1:100)





General Notes

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ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.

ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

KEY:

- DRAIN 5 REEN NETWORK AND FLOW DIRECTION
- PENNED SECTION OF DRAIN 5 REEN NETWORK
- TATA DRAINAGE NETWORK AND FLOW DIRECTION

Rev	Date	Amendments	By	Chk



Client
INDURENT

Project
P18-669 Llanwern Reclamation

Drawing Title
Drain 5 & TATA Drainage Network Routing Plan

INFORMATION

Drawn	Checked	Date
NTS	AMS	CW
24/10/24		

Drawing No.	Rev.
18669-RLL-24-XX-DR-O-0655	P01

Appendix A

Mr. Chris Wilson
Rodgers Leask Limited
1/100A Woodlands Court, Ash Ridge Road,
Almondsbury, Bristol,
BS32 4LB

30/12/24

Dear Mr. Richardson

**Land Drainage Act 1991/Land Drainage Byelaws 1993
Land Drainage Consent Application No. 2024/13**

Thank you for your application for Consent under the Land Drainage Act 1991/Land Drainage Byelaws 1993 for:

This application includes the installation of a weir and penstock in the northern part of Drain 5 that is within the Indurent Park Newport site. The weir and penstock are intended to 'pen' an approximate 150m section of watercourse where water will be held at an approximate level of 4.5mAOD before being released whilst allowing the system to free-flow in both directions above 4.5mAOD.

Refer to full description in LDC application int. ref; 2024/13 and associated documents as provided by applicant.

I am pleased to advise that the details submitted are satisfactory and accordingly I enclose herewith the ***Formal Consent for the Works***.

Note: Please refer to Guidance for Pollution Prevention [PPG 6: Working at construction and demolition sites](https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/) and [GPP 5: Works and maintenance in or near water](https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/) available at www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/

Your attention is drawn to the Conditions relating to the Consent.

It should be noted that this Consent does not free you from the need to obtain other licenses, consents, approvals or permissions (including planning permission) which may be required in law, or to comply with any duties or responsibilities for conservation or protection of the environment. In addition, you should ensure that you obtain the prior consent of any owners or occupiers of land if necessary. This Consent does not confer any rights of entry or rights over property.

I would be grateful if you could please notify us when the work is completed in order that we can carry out an inspection.
Thank you for your co-operation.

A handwritten signature in blue ink, reading 'DPL Penny'.

David P L Penny – IDD Engineer Team Leader (S.E)
Caldicot and Wentlooge and Lower Wye Internal Drainage District



Natural Resources Wales Gwent Levels & Lower Wye Internal Drainage District

LAND DRAINAGE ACT 1991
Land Drainage Byelaws 1993

NOTIFICATION OF CONSENT

The **Natural Resources Wales Gwent Levels and Lower Wye Internal Drainage District** Hereby Consents to the construction of the under mentioned works subject to the Conditions attached hereto in accordance with Sections 23 and 66 of the Land Drainage Act 1991.

Consent Number: 2024/13
Name of Applicant: Mr. Jamie Payne
Address: Indurent Management Limited
Floor 2,
One Colmore Row,
Birmingham,
B3 2BJ

Name of Agent: Chris Wilson
Address: Rodgers Leask Limited
1/100A Woodlands Court, Ash Ridge Road,
Almondsbury, Bristol,
BS32 4LB

Description of Works: This application includes the installation of a weir and penstock in the northern part of Drain 5 that is within the Indurent Park Newport site. The weir and penstock are intended to 'pen' an approximate 150m section of watercourse where water will be held at an approximate level of 4.5mAOD before being released whilst allowing the system to free-flow in both directions above 4.5mAOD.

Refer to full description in LDC application int. ref: 2024/13 and associated documents as provided by applicant.



Location: Indurent Park, Newport
NP19 4RG

Watercourse: Drain 5 (Business Park Reen)

**watercourse
Grid Reference:** ST 335964, 186835

NB: *This Consent is issued for the purposes of Land Drainage Consent only and it is the Applicant's responsibility to ensure that all other consents and approvals are obtained and, to satisfy themselves whether or not the carrying out of the works affects another party's rights and, if so, to secure any agreements with such other parties as may be necessary.*

Natural Resources Wales Gwent Levels and Lower Wye Internal Drainage District

LAND DRAINAGE ACT 1991 Land Drainage Byelaws 1993

This document should be kept with the deeds to the property.

Introduction

This Note does not form part of the Certificate of Authorisation.

Natural Resources Wales Gwent Levels Internal Drainage District

Land Drainage Consent is required by the Land Drainage Byelaws and enforced by section 66 of the Land Drainage Act 1991. The following activities require Natural Resources Wales Consent under the Byelaws:

- the alteration of watercourse control works.
- diversion or stopping of watercourses.
- the obstruction or anticipated obstruction to flow into, in or out of a watercourse.
- detrimental substances not to be put in watercourses.

Note: The above examples are an abbreviated list of activities requiring consent under the Byelaws. Reference must be made to the formal Land Drainage Byelaw.

Contraventions

Generally, if any person carries out any work in contravention of the Byelaws Natural Resources Wales can, in respect of the above sections.

- a) on summary conviction, be liable to a fine of up to level 5 on the standard scale referred to in section 17 of the Criminal Justice Act 1991.



- b) remove, alter, or pull down the work; and
- c) recover from that person the expenses incurred in doing so.

Other information

This Consent does not free you from the need to obtain other licenses, consents, approvals or permissions (including planning permission) which may be required in law or, to comply with any duties or responsibilities for conservation or protection of the environment. In addition, you should ensure that you obtain the consent of any owners or occupiers of land if necessary. This Consent does not confer any rights of entry or rights over property.

You should ensure that the works are carried out in a proper manner so as not to adversely affect the watercourse and you are advised to consult and comply with any special requirements issued by Natural Resources Wales for your use. Work should be completed as quickly as possible once started. Any temporary works affecting the watercourse required for construction will require a separate prior consent.

You are reminded that it is an offence under Section 85 of the Water Resources Act 1991 to cause or knowingly permit any poisonous, noxious or polluting matter or any solid waste matter to enter any controlled waters. Care must be taken to ensure that neither the watercourse nor groundwater become polluted particularly by for example diesel fuel, petrol and oil from machinery. All diesels must be stored securely, and any large containers left on site must be banded. Care should also be taken when filling machinery to ensure that diesel/petrol/oil is not spilt on the ground as this could lead to pollution of the watercourse or groundwater by migration or direct run off. Spillages must not be washed away but absorbed by some medium and then removed from site to a suitable tip. Any such incidents must be reported to Natural Resources Wales immediately.

The above information must be brought to the attention of your contractor.

Natural Resources Wales Gwent Levels and Lower Wye Internal Drainage District

LAND DRAINAGE ACT 1991 Land Drainage Byelaws 1993

Consent Number: 2024/13

CONDITIONS RELATING TO THE CONSENT:

1. Any works undertaken are to be in strict accordance with the proposals contained in the submitted plans and drawings.
2. These works should be carried out in such a way as to minimise disturbance to the existing banks and bed of all watercourses.
3. Any works must not compromise the stability of the banks or create a gradient of more than 1:20 towards any IDD watercourse within 7m of a watercourse.
4. The bed and banks of any watercourse which are disturbed by the works, shall be reinstated to the satisfaction of the IDD Engineer.
5. No costs or claims arising from the carrying out of the Consented Works shall be directed to Natural Resources Wales and the Applicant shall indemnify them against any such costs arising out of or in consequence of the Consented Works.
6. In carrying out the Consented Works the Applicant shall comply with all reasonable instructions given by Natural Resources Wales including providing access for emergency works on adjacent watercourse.

General

1. All reasonable care must be taken to ensure all watercourses are kept free of foreign matter and floating debris during the construction period and on completion.
2. Works must be carried out in such a way as to ensure minimum obstruction to flows all watercourse at all times.



3. On completion of the works all debris and surplus material shall be removed from the banks of all watercourses and the banks shall be left in a stable condition with adequate protection being provided to avoid erosion.
4. All works must adhere to Pollution Prevention Guidelines (GPP5) Working in or near the watercourse, please refer to the guidance documents at: [GPP5](#)
5. [PPG 6: Working at construction and demolition sites](#)
6. All works to be undertaken in accordance with The Health and Safety at Work Act 1974 and other H&S Regulations

Timing

1. The construction of the works described in this consent must be completed **within twelve months** from the date of issue of this consent. Works not completed within this time and/or any additional works will require a further consent.
2. The works referred to in this consent shall not be carried out in the watercourse during periods of high rainfall.

Approved Drawings and Documents:

Drain 5 Penning land-drainage-consent-application-form FINAL. Int. ref. 2024/13

241028 - MS-004 - Drain 5 Penstock Works_REV1

18669-RLL-24-XX-DR-O-0655-P01 - Drain 5 and TATA Drainage Network Routing Plan

17480-RLL-24-XX-DR-O-1282-P03 Drain 5 Wier Proposal DRAFT

17480-RLL-24-XX-DR-O-1284 Drain 5 Penned section location plan

Name

Date

	30/12/2024
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David Penny, IDD Engineer/Team Leader – Gwent Levels and Lower Wye Internal Drainage District