APENDIX A15

29/9/2021

[redacted]

From: Damian Maguire [redacted]
Sent: Wednesday 29 September 2021 17:50
To: Jonathon Edgeworth; Sinéad Carey
Cc: John Joyce; Louise Best; Seamus Ryan
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

ByrneLooby (IW) / Damian Maguire / Jon. Edgeworth Sinead Carey John Joyce Louise Best

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(IW) Seamus Rya-

Hi Johnathon,

I have checked with the Contractor regarding the expired SafePass and it is not an issue as long as you are in my company during the site visit.

Regards,

Damian Maguire
Resident Engineer
BYRNELOOBY
[redacted]
IRELAND | UK | UAE | BAHRAIN I KSA
WWW.BYRNELOOBY.COM

From: Jonathon Edgeworth
Sent: Wednesday 29 September 2021 16:46
To: Sinéad Carey
Cc: John Joyce ; Damian Maguire ; Louise Best ; Seamus Ryan
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

29/9/21 Sinead Carey John Joyce Damian Maguire Louise Best S. Kyan Jonathon Edge

Hi Sinéad

Thanks for your email, to confirm the attendees for the site visit will be.

Jonathon Edgeworth
Seamus Ryan

Joanne Fachill

Joanne Frehill
David Conneran

Just to note, Joanne Frehill flagged to me that her Safe Pass has lapsed. Can you check if this will impact her attending the site visit?

I have circulated the induction details below and requested all attendees to complete as required. If you require anything further please let me know.

Kind Regards,

Jonathon Edgeworth
Senior Project Engineer – Major Projects

ervia

[redacted]

29/9/2021
S Ryan
Olive Marshall
J. Edge
J. Joyce
Damien Maguire.
Louise Best
Sinead Carey
(BL)

From: Sinéad Carey [redacted]
Sent: 29 September 2021 13:14
To: Seamus Ryan [redacted] Olive Marshall [redacted]
Cc: Jonathon Edgeworth [redacted] John Joyce [redacted] Damian Maguire [redacted]; Louise Best [redacted]
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

Hi Seamus,

10am next Wed 6th Oct works for the BRDS team.

Below is a link that all attendees will need to complete ahead of attendance. Once this is completed, they will receive an email containing the site induction for BRDS.

[redacted]

They will also need to complete the CIF COVID-19 induction, if they have not completed it yet, the below info can be used:
https://cif.ie/essential-induction/
The password is outlined below, which is case sensitive:
CIFessential2020

On the day of the visit, we ask that they complete the COVID-19 self-declaration as well:

[redacted]

Damian's mobile number is [redacted] if you need to touch base with him directly regarding arrangements for the day.

Kind regards,

Sinéad Carey

Associate Director

BYRNELOOBY

[redacted]

Office: H5, Centrepoint Business Park, Oak Rd
Dublin 12, D12 VW27, Ireland

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29/9/2021
S Ryan
Sinead Carey
Olive Marshall
Jon. Ed
J. Joyce
Damien Maguire
Louise Best

From: Seamus Ryan [redacted]
Sent: Wednesday 29 September 2021 11:29
To: Sinéad Carey [redacted] Olive Marshall <[redacted]
Cc: Jonathon Edgeworth [redacted]; John Joyce [redacted]; Damian Maguire [redacted] Louise Best [redacted]
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

Thanks Sinéad,

Can I suggest 10am for next Wednesday 6th October and I would hope that 2 hours max will cover the visit. We can firm up names from the GDD team over the next couple of days if this is acceptable.

Kind Regards

Seamus Ryan
Project Manager – Major Projects
Mental Health First Aider

ervia

Colvill House, 24-26 Talbot St, Dublin 1
[redacted]

28/9/21

S Ryan.
Olive Marshall
J. Edgeworth
J Joyce
Damian Maguire.
Louise Best

From: Sinéad Carey [redacted]
Sent: 28 September 2021 14:30
To: Seamus Ryan [redacted]; Olive Marshall [redacted]
Cc: Jonathon Edgeworth [redacted]; John Joyce [redacted]; Damian Maguire [redacted]; Louise Best [redacted]
Subject: [EXTERNAL] RE: BRDS GDD Connection 1A

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Sinead Carey

Hi Seamus,

The PRE, Damian Maguire, is on annual leave from lunchtime next Wednesday until next Monday. Is it possible for your team to attend on Wed morning? Failing that could we suggest the following week.

Damian has suggested that a comfortable number of attendees would be 6-8.

All attendees will be required to should bring their own PPE and complete the online CIF Induction and W&B online Covid-19 inductions in advance.

Once we confirm the date and time and attendees, we can forward on details of the inductions and directions to the site.

Kind regards,

Sinéad Carey
Associate Director

BYRNELOOBY

[redacted]

IRELAND | UK | UAE | BAHRAIN | KSA

28/9/21

From: Seamus Ryan <Seamus.Ryan@ervia.ie>
Sent: Tuesday 28 September 2021 11:58
To: Olive Marshall [redacted]; Sinéad Carey [redacted]
Cc: Jonathon Edgeworth [redacted]; John Joyce [redacted]
Subject: Re: BRDS GDD Connection 1A

Thanks Olive,

@Sinead,

Is it possible to arrange a site visit for next Wednesday, 6th October at 12:30pm? I can send you names during week once confirmed and will keep to small numbers.

Seamus Ryan

17/9/21

From: Olive Marshall [redacted]
Date: 17 September 2021 at 11:46:11 IST
To: Seamus Ryan [redacted]
Cc: Jonathon Edgeworth [redacted], John Joyce [redacted]
Subject: FW: BRDS GDD Connection 1A

Hi Seamus,

Please find details from Sinead Carey in BLP in relation to changes to specification. The building of the GDD chamber is ongoing so no as built drawings as yet.

Included some recent aerial shots of the site above.

As Sinead outlines below, they can facilitate site visit in small numbers.

Regards,
Olive

16/9/21

From: Sinéad Carey [redacted]
Sent: 16 September 2021 19:18
To: Olive Marshall [redacted]
Cc: Louise Best [redacted] John Joyce [redacted]
Subject: RE: BRDS GDD Connection 1A

CAUTION: This email originated from outside of your organisation. Do not click links or open attachments unless you recognise the sender and are sure that the content is safe.

Hi Olive,

See below comments in red where minor changes have occurred since our last review. Remaining text appears to be as previously agreed.

We don't have As-Builts yet for the GDD chamber as it is still under construction. Attached are the Construction Status GA drawings, for information.

Damian and W&B are happy to facilitate a site visit, in reasonably small numbers, in the coming weeks. Let us know what suits the GDD team.

Come back to us if you require further information.

Kind regards,
Sinead

GDD Connection 1A to the BRDS 9C

Connection CC001 is located at the head of Pipeline No.1 and will intercept the flows from the 9C sewer catchment at the BRDS pump station site. The connection shall be undertaken using trenchless methods to an existing 8m diameter shaft being constructed under the BRDS project. The details for the connection are as follows:

- The soft eye dimensions are 3.2m x 3.2m from a level of 40.1mOD to 43.3mOD; *IL of 39.90mOD on the soft eye. ie from a level of 39.90mOD to 43.10mOD*
- The invert level of the connection point is 40.75mOD; Invert level of the channel is 40.74mOD.
- The co-ordinates for connection are X =708106.256 Y = 738926.931; Co-Ordinates for the centre of the chamber are 708102.5145E, 738928.3445N
- As per the control philosophy provided in **Appendix X**, the BRDS Contractor shall undertake following works at BRDS infrastructure to facilitate connection/diversion works:
  - o close CSO and FBT penstocks to isolate the IF001 chamber;
  - o open low connection penstocks;
  - o operate storm return pumps as foul lift pumps;
  - o remove weir plate and bench structure 09 at completion of diversion/connection works.
- As per the control philosophy provided in **Appendix X**, the GDD Contractor shall undertake following works at BRDS infrastructure to facilitate connection/diversion works:
  - o remove pre-cast roof from the interface IF001 chamber;
  - o tunnel into the chamber;
  - o remove TBM from the chamber;
  - o remove existing benching in the chamber;
  - o provide new benching and a weir in the chamber;
  - o place roof back on the chamber;
  - o divert all flows from 9C sewer to the duplication sewer TS1;

All works shall be completed within the Sectional Completion timeframe with flows required to be turned in under Contract No.1.

Pipeline Construction Interface

BRDS Contractor

- The BRDS contractor will provide an 8m approx. internal diameter shaft with soft eye to enable tunnel connection.
- BRDS Contractor shall own the design philosophy to enable the diversion works
- BRDS contractor will facilitate the isolation of the GDD shaft following receipt of notification to commence works.
- The BRDS contractor will undertake the role of a lead PSCS should there be any interface during the construction works.

BRDS Operator

- Liaise with Contract No.1 to confirm ready to accept flows
- BRDS Operator will turn in flow at the start of the Contract No.1 commissioning phase.

GDD Contractor

The BRDS contractor is estimated for completion in 2022 with an operation period of 2 years following construction works. The GDD Contractor shall:

- Liaise with BRDS contractor;
- Submit insurances, method statements, risk assessments etc. in line with the connection requirements;
- Minimum 20 days' notice to BRDS Contractor prior to commencement of works to allow BRDS Contractor to divert flows in accordance with the control philosophy provided in **Appendix X**.
- Conduct any necessary inductions as required
- Follow requirements of the 'Permit to Work'
    - The BRDS connection works shall comprise removing the roof slab of the shaft, removal of the TBM and finishing works at the GDD shaft (Structure 06).
    - The BRDS connection works undertaken by the GDD Contractor shall be limited to the GDD shaft (Structure 06) and Pipeline Section 1A.
- The GDD Contractor shall undertake reinstatement.

Road Construction/ Access Interface

BRDS Contractor

- BRDS contractor will provide access to Contract No. 2 through the site as required.
- BRDS contractor will provide a suitable access road to cater for construction equipment necessary for tunnelling.

GDD Contractor

- The contractor shall upgrade/repair road as per details
- Access shall be permitted to the areas identified

Kind Regards

Seamus Ryan
Project Manager – Major Projects

ervia

[redacted]

Uisce Éireann
Bosca OP 6000
Baile Átha Cliath 1
Éire

Irish Water
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Dublin 1
Ireland

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www.water.ie

Dr. Karen Creed
Environmental Licencing Programme
Office of Climate, Licencing and Resource Use
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Wexford

14th February 2017

IW-ER-LT0325

Dear Karen,

RE: Ringsend Waste Water Discharge Licence - Technical Amendment Application D0034-01

The Agency issued a Wastewater Discharge Licence for the Greater Dublin Area Agglomeration (D0034-01) on the 27th July 2010 and Technical Amendment 16th December 2016. Irish Water now requests a Technical Amendment under Section 33 (1) of the Waste Water Discharge (Authorisation) Regulations 2007, to amend *Schedule A.4 Storm Water Overflows*, to include an additional stormwater overflow as follows:-

Licence Code	SWO Discharge Location	Storm Water Overflow Location	Name of Receiving Water	WFD Code Receiving Water
D0034-01	308267 E 238976 N	WWTP Storm Tank Overflow	River Tolka	IE_EA_09T011150

Irish Water intends to install 4 No. underground storage tanks to balance combined sewer flows before controlled discharge into the Existing 9C sewer network. It is expected that the storm water overflow will be operational by Q4 2020. The tanks provide a stormwater overflow to the River Tolka for return periods in excess of 5 years. Any overflow to the River Tolka will be screened prior to discharge. The overflow will be fully compliant with the DOEHLG's 'Procedures and criteria in relation to Stormwater Overflows'.

The additional storm water overflow discharges to the same water body (where the characteristics of the receiving water are similar, including the proximity of Natura 2000 sites) as a number of the current stormwater discharges which are already included in WWDL D0034-01.

Irish Water has had regard to the EPA's publication *EPA Guidance for Irish Water on Requests for Alterations to a Waste Water Discharge Licence or Certificate of Authorisation* in compiling this submission for a Technical Amendment.

A screening report for Appropriate Assessment has been undertaken in relation to the Storm Water Overflow and which determined that a Stage 2 Appropriate Assessment is not required.

Please find enclosed:

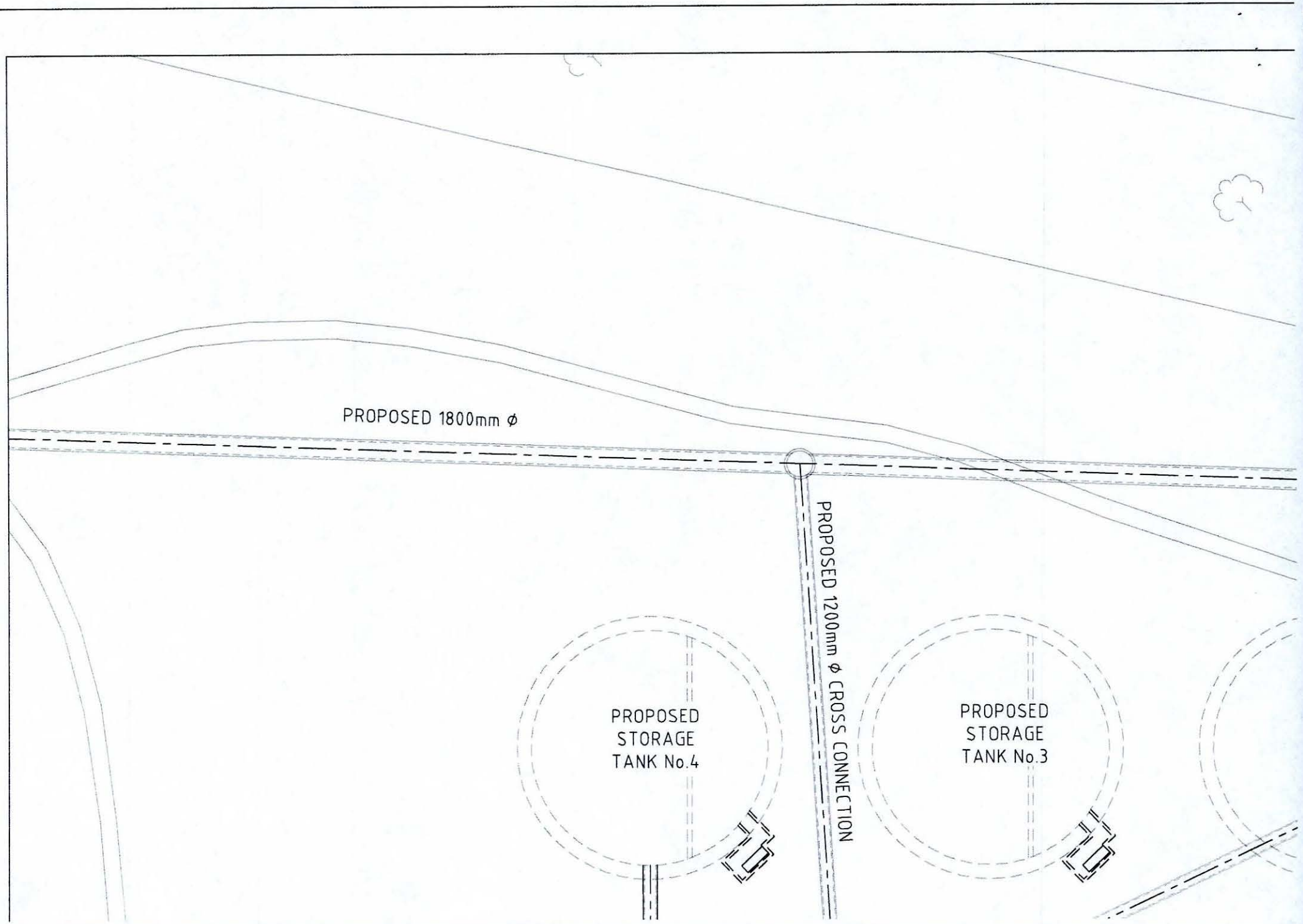
1. Map of Stormwater Overflow Location
2. Appropriate Assessment Screening

Best Regards,

Tom Stafford
Environmental Regulation Manager

Appendix 1. Map of Stormwater Overflow Location

A1


PROPOSED 1800mm ø
PROPOSED 1200mm ø CROSS CONNECTION
PROPOSED STORAGE TANK No.4
PROPOSED STORAGE TANK No.3

Appendix 2. Appropriate Assessment Screening

UISCE ÉIREANN : IRISH WATER

Irish Water Report

Appropriate Assessment Screening of an overflow to the River Tolka as part of a Technical Amendment to the Ringsend Waste Water Discharge Licence

Contents

Introduction

This report provides an Appropriate Assessment (AA) Screening of an overflow to the River Tolka from proposed stormwater tanks which form part of the Blanchardstown Regional Drainage Scheme, for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007), as amended. It assesses whether the proposed operation of the overflow, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 Site(s) in view of best scientific knowledge and the conservation objectives of the site(s). Natura 2000 Sites are those identified as sites of European Community importance designated as Special Areas of Conservation under the Habitats Directive or as Special Protection Areas under the Birds Directive.

This report follows the guidance for AA published by the Environmental Protection Agency's (EPA) '*Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)*' (EPA, 2009); and takes account of the Department of the Environment, Heritage and Local Government's guidelines '*Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*' (DoEHLG, 2009) and Circular L8/08 '*Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments*' (DoEHLG, 2008).

This Screening for Appropriate Assessment was carried out by a qualified ecologist working for Irish Water.

Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

> *Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*

Article 6(4) states:

> *If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

Methodology

Guidance Followed

Both EU and national guidance exists in relation to Member States fulfilling their requirements under the EU Habitats Directive, with particular reference to Article 6(3) and 6(4) of that Directive. The methodology followed in relation to this AA Screening has had regard to the following guidance:

- Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Environmental Protection Agency, (EPA, 2009).
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government, (DoEHLG, 2010).
- Circular L8/08 – Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Department of Environment, Heritage and Local Government, (DoEHLG, 2008).
- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg, (EC, 2000a).
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg, (EC, 2000b).
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels (EC, 2001).
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg, (EC, 2007).
- Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg (EC, 2006).
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin (NPWS, 2012).
- European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No.477 of 2011).

- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).

Stages Involved in the Appropriate Assessment Process

Stage 1: Screening / Test of Significance
This process identifies whether the stormwater tank overflow is directly connected to or necessary for the management of a Natura 2000 Site(s); and identifies whether the overflow is likely to have significant impacts upon a Natura 2000 Site(s) either alone or in combination with other projects or plans.

The output from this stage is a determination for each Natura 2000 Site(s) of not significant, significant, potentially significant, or uncertain effects. The latter three determinations will cause that site to be brought forward to Stage 2.

Stage 2: Appropriate Assessment
This stage considers the impact of the stormwater tank overflow on the integrity of a Natura 2000 Site(s), either alone or in combination with other projects or plans, with respect to (1) the site's conservation objectives; and (2) the site's structure and function and its overall integrity. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts

The output from this stage is a Natura Impact Statement (NIS). This document must include sufficient information for the EPA to carry out the appropriate assessment. If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must consider alternatives (Stage 3) or proceed to Stage 4.

Stage 3: Assessment of Alternatives
This process examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 Site. This assessment may be carried out concurrently with Stage 2 in order to find the most appropriate solution. If no alternatives exist or all alternatives would result in negative impacts to the integrity of the Natura 2000 Sites then the process either moves to Stage 4 or the project is abandoned.

Stage 4: Assessment Where Adverse Impacts Remain
An assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

Stage 1: Screening / Test of Significance

In complying with the obligations under Article 6(3) and following the appropriate guidelines, this AA Screening has been structured as a stage by stage approach as follows:

- Description of the project;
- Identification of Natura 2000 sites potentially affected;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of any effects on the Natura 2000 sites;
- Exclusion of sites where it can be objectively concluded that there will be no significant effects; and
- Screening conclusion.

Screening

Description of the Project

Background Information on the BRDS Scheme

Irish Water intend to undertake the duplication of the existing 9C Sewer (9CS) and provide an associated pumping station and storage in Blanchardstown, Dublin 15. The proposed scheme will be referred to as the BRDS 9C Sewer Duplication and Storage Scheme, incorporating Tolka Valley Park Pumping Station. The proposed works are required to cater for inter alia future domestic population growth within the 9C catchment (including Fingal, Meath and Kildare areas), industrial growth within the 9C catchment and the significant industrial/manufacturing growth proposed in the adjacent Liffey catchment (Leixlip, Co. Kildare). The proposed scheme is also needed to reduce existing uncontrolled spills to the Tolka River as a result of surcharging and excess flows in addition to associated water pollution and odour issues.

The design philosophy for the BRDS 9C Sewer Duplication (9CSD) is to duplicate the existing 9C Sewer (9CS) for a distance of approximately 3.2 km through Tolka Valley Park, from Parslickstown Bridge to Waterville Park (immediately west of Mill Road) and provide 4 No. off line storage tanks and a pumping station within Waterville Park.

The 9CSD scheme proposal aligns with the Greater Dublin Drainage Study design parameters and has been tested using hydraulic modelling to ensure that the design proposal satisfies the requirement to limit a Combined Sewer Overflow (CSO) spill to the Tolka River to a 1 in 5 year return period storm event, and prevent manhole surcharging for a 1 in 30 year return period storm event.

An EIS and AA Screening is currently being prepared for the scheme and planning permission will be sought from Fingal County Council in 2017.

Stormwater Tank Overflow to the River Tolka

The 4 No. Underground Storage Tanks will be located within an existing park to balance combined sewer flows before controlled discharge into the Existing 9C sewer network. The tanks provide emergency overflow facilities to the River Tolka for return periods in excess of 5 years in accordance with DOEHLG's 'Procedures and criteria in relation to Stormwater Overflows'. The proposed technical amendment to the Ringsend Licence (D0034-01) is for the addition of this overflow location.

Description of the Receiving Environment and Monitoring Results

EPA monitoring data from 2015 for the River Tolka upstream (Mulhuddart Br) and downstream (Abbotstown Br) of the proposed overflow is provided in Table 1.0. Results for Ammonia and BOD meet the Surface Water Regulations 'Good status' EQS's for these parameters. Orthophosphate measured is slightly above the EQS for Good status.

Table 1.0: River Tolka Monitoring Data

	Ammonia	BOD	Dissolved Oxygen	Ortho-Phosphate	Total Oxidised Nitrogen
SW Regs EQS	≤0.14 (good) ≤0.090 (high)	≤2.6 (good) ≤2.2 (high)		≤0.075 (good) ≤0.045 (high)	
Mulhuddart Br					
20/03/2015	0.07	0.5	97	0.06	2.12
26/06/2015	0.3	2	101	0.09	0.91
18/09/2015	0.08	0.5	94	0.1	0.86
11/12/2015	0.03	0.5	96	0.12	1.7
Abbotstown Br					
20/03/2015	0.07	0.5	98	0.06	2.12
26/06/2015	0.08	2	97	0.08	1.3
18/09/2015	0.05	0.5	107	0.09	1.17
11/12/2015	0.03	0.5	103	0.07	1.79

The EPA carry out biological water quality monitoring on the Tolka. The closest station upstream of the proposed outfall is currently assigned Bad status (Q2 in 2015), while the nearest downstream station is currently assigned Poor status (Q3 in 2013). The EPA class the Tolka Estuary as Potentially Eutrophic (2010-2012). In terms of Water Framework Directive Status[1], the River Tolka is currently classed as Bad upstream of Mulhuddart and Poor elsewhere in the catchment of the river within Dublin.

EPA reports suggest there has been a downward trend in the levels of total phosphorus and total nitrogen present in the River Tolka discharging into the Tolka Estuary (Bradley et al., 2015[2], Ní Longphuirt and Stengal, 2016[3]). Currently however, uncontrolled spills from the existing 9C sewer are likely to be contributing to water quality pressures in the River Tolka.

[1] http://gis.epa.ie/Envision/ 2010-2015 Status

2 Bradley, C., Byrne, C., Craig, M., Free, G., Gallagher, T., Kennedy, B., Little, R., Lucey, J., Mannix, A., McCreesh, P., McDermott, G., McGarrigle, M., Ní Longphuirt, S., O'Boyle, S., Plant, C., Tierney, D., Trodd, W., Webster, P., Wilkes, R. and Wynne, C., 2015. Water Quality in Ireland 2010-2012. Environmental Protection Agency, Johnstown Castle, Co. Wexford.

3 Ní Longphuirt, S. and Stengel, D.B., 2016. Assessing Recent Trends in Nutrient Inputs to Estuarine Waters and Their Ecological Effect. (2012-W-FS-9) EPA Final Report. Prepared for the Environmental Protection Agency by Botany and Plant Science, School of Natural Sciences, National University of Ireland Galway

Brief Description of the Natura 2000 Sites

This section of the screening process describes the Natura 2000 sites within a 15km radius of the stormwater tank overflow location. A 15km buffer zone has been chosen as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process, which is in line with Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities produced by the Department of the Environment, Heritage and Local Government.

Table 2.0 lists the SACs and Table 3.0 lists the SPAs that are within 15km of the overflow location, and Figure 1.0 shows their location in relation to the proposed stormwater tanks and the overflow location. The qualifying interests of each of the identified Natura 2000 Sites is also provided.

Table 3.0: SACs located within 15km of the stormwater tank overflow

Site Code	Site Name	Qualifying Habitats	Qualify Species
000205	Malahide Estuary SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Spartina swards (Spartinion maritimae) [1320] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	
000206	North Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline	*Petalophyllum ralfsii* (Petalwort) [1395]

Site Code	Site Name	Qualifying Habitats	Qualify Species
		with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190]	
000210	South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	
001209	Glenasmole Valley SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Petrifying springs with tufa formation (Cratoneurion) [7220]	
001398	Rye Water Valley/Carton SAC	Petrifying springs with tufa formation (Cratoneurion) [7220]	*Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014] *Vertigo moulinsiana* (Desmoulin's Whorl Snail) [1016]

Table 4.0: SPAs located within 15km of the stormwater tank overflow

Site Code	Site Name	Special Conservation Interests
004006	North Bull Island SPA	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141]

		Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999]
004024	South Dublin Bay and River Tolka Estuary SPA	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999]
004025	Broadmeadow/Swords Estuary SPA	Great Crested Grebe (*Podiceps cristatus*) [A005] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Pintail (*Anas acuta*) [A054] Goldeneye (*Bucephala clangula*) [A067] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143]

		Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Wetland and Waterbirds [A999]

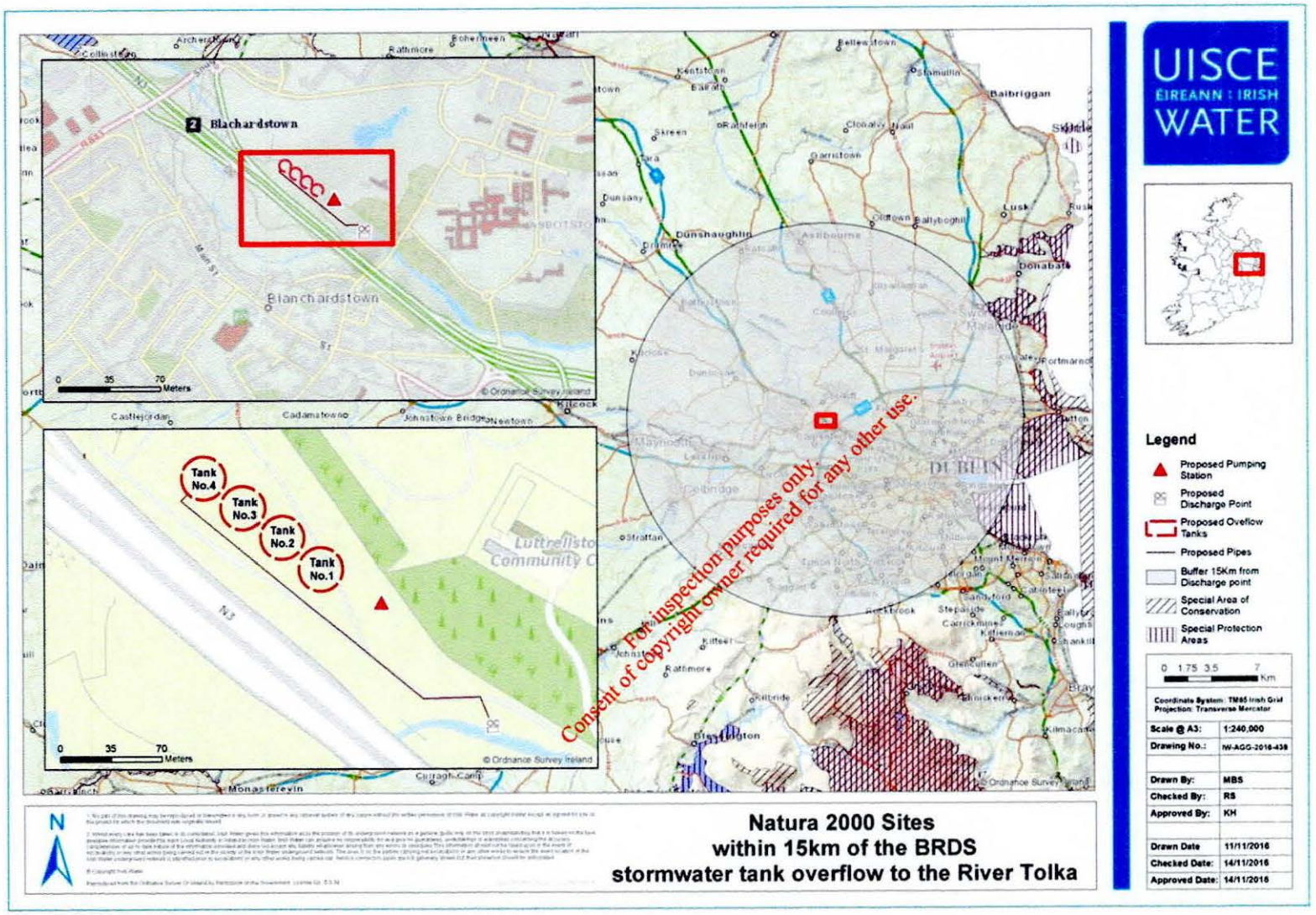


Figure 1.0: Natura 2000 Sites

Potential Impacts of the Stormwater Tank Overflow and Likely Significant Effects on Natura 2000 Sites

The purpose of this section of the screening is to examine the possibility that the stormwater tank overflow, either individually or in combination with other plans and projects, may result in significant negative effects on the Conservation Objectives and the integrity of the Natura 2000 Sites identified.

The most apparent potential risk to a Natura 2000 Site(s) from a stormwater tank overflow is to the water quality of the receiving environment, and the assessment therefore needs to consider whether the receiving environments water quality has the potential to interact with the qualifying interests of the Natura 2000 Sites identified. Using the source-pathway-receptor model, only the qualifying interests and special conservation interests South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC the North Bull Island SPA and North Dublin Bay SAC were considered to have potential connectivity to the Tolka overflow. Sites at a further distance are not considered further in this assessment as they were either unconnected, or they are at a sufficient distance such that significant dilution/dispersion is considered available in intervening coastal waters.

The Conservation Objectives of these relevant sites were reviewed as part of this Screening Assessment:

- NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

The stormwater tank overflow to the River Tolka is not directly connected with or necessary to the management of the site for nature conservation.

Direct, Indirect or Secondary Impacts

The existing 9C Sewer is regularly subject to flows in excess of the original design capacity. As a result, uncontrolled spills to the Tolka River occur from time to time when surcharging occurs in the existing sewers and excess flows discharge to the surface via the existing manholes. The proposed 9CSD project will provide additional capacity and therefore reduce frequency of surcharge and the likelihood of uncontrolled spills. The stormwater tanks will provide 30,000 m^3 of storage, which will limit such emergency discharges to storm events with a return period of greater than 5 years.

The overflow has been designed to be compliant with relevant guidelines. It is further noted that any overflow discharge would be very dilute due to the high volume of stormwater. It is expected that the BRDS scheme will result in an improvement in water quality in the River Tolka, and that as any stormwater overflow will occur so infrequently and be highly diluted, there will be no detrimental effect on water quality at a local scale.

The relevant Natura 2000 sites are located at a significant distance from the overflow location, the closest site being South Dublin Bay and River Tolka Estuary SPA over 10km downstream. With any dilute infrequent overflow not likely to impact locally, there is no potential for impacts to water quality in the Tolka Estuary given the distance involved. Furthermore, species for which the relevant sites are designated are adapted to nutrient and sediment rich environments and are not considered sensitive to such distant water quality pressures.

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) the tank overflow to the River Tolka does not have the potential to impact the relevant qualifying interests identified, and therefore will not affect the conservation objectives of South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC the North Bull Island SPA and North Dublin Bay SAC. No significant adverse impacts on any Annex I habitat or Annex II species are anticipated as a result of the stormwater overflow.

No significant adverse impacts on the qualifying interests of the remaining Natura 2000 Sites identified within 15km of the overflow location is considered likely due to lack of hydrological connection between the overflow and the relevant terrestrial SACs and SPAs, or the dilution and dispersion provided by intervening coastal waters for remote coastal/marine SACs and SPA sites.

Possible Cumulative Impacts with other Plans and Projects in the Area

As part of Stage 1 Screening, in addition to the stormwater overflow, other relevant projects and plans in the relevant region must also be considered. This step aims to identify at this early stage any possible significant effects on the Natura 2000 Sites from the stormwater tank overflow in-combination or cumulative with other plans and projects. Existing plans which have been examined include:

- Fingal Development Plan 2011-2017
- Eastern River Basin District – River Basin Management Plan (ERBD, 2010)
- Fingal Biodiversity Action Plan 2010-2015

The above plans have been assessed in accordance with Article 6(3) of the Habitats Directive and Part XAB of the Planning and Development Act, 2000, and are not envisaged to result in significant effects on the integrity of the Natura 2000 network.

The potential cumulative/in-combination impacts with the existing Ringsend WwTP and wastewater network were also considered. As the proposed Tolka overflow is not likely to significantly impact water quality, or affect the QI's of any Natura 2000 site, there is no potential for in-combination effects with the ongoing discharges from Ringsend and the network. The Ringsend plant will be upgraded in the near future with an associated improvement in effluent

quality. The Greater Dublin Drainage Scheme will also lead to significant improvements in waste water quality entering the Dublin catchments and ultimately Dublin Bay.

A search for Planning Applications on the Fingal County Council Planning Search Website identified three proposed developments in the Tolka Valley area (FW15A/0156, FW16A/0122 and FW16A/0050). These projects do not have the potential to contribute to in-combination effects on any Natura 2000 sites with the proposed overflow to the Tolka.

Summary of Potential Impacts and Likely Significant Effects

Table 4.0 provides a summary of the likely significant impact of the proposed stormwater tank overflow on the conservation objectives of the Natura 2000 sites potentially linked to the stormwater tank overflow as identified in Tables 2.0 and 3.0.

Table 5.0: Potential Significant Impacts on Natura 2000 sites from the Stormwater Tank Overflow

Site Name	Direct Impacts	Indirect/ Secondary	Resource Requirements (Drinking Water Abstraction Etc.)	Emissions (Disposal to Land, Water or Air)	Excavation Requirements	Transportation Requirements	Duration of Construction, Operation, Decommissioning
Malahide Estuary SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
North Dublin Bay SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
South Dublin Bay SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
Glenasmole Valley SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
Rye Water Valley/Carton SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
North Bull Island SPA	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
South Dublin Bay and River Tolka Estuary SPA	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
Broadmeadow/Swords Estuary SPA	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest

Likely Changes to the Natura 2000 Site(s)

The likely changes that will arise from the stormwater tank overflow have been examined in the context of a number of factors that could potentially affect the integrity of the identified Natura 2000 Sites. Overall, it has been found that the proposed stormwater overflow will not affect the integrity of the identified Natura 2000 Sites, alone or in-combination with other plans or projects.

Table 6.0: Likely Affect on Natura 2000 Sites

Site Name	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Density	Changes in Key Indicators of Conservation Value (Water Quality Etc.)	Climate Change
Malahide Estuary SAC	None	None	None	None	None	None
North Dublin Bay SAC	None	None	None	None	None	None
South Dublin Bay SAC	None	None	None	None	None	None
Glenasmole Valley SAC	None	None	None	None	None	None
Rye Water Valley/Carton SAC	None	None	None	None	None	None
North Bull Island SPA	None	None	None	None	None	None
South Dublin Bay and River Tolka Estuary SPA	None	None	None	None	None	None
Broadmeadow/Swords Estuary SPA	None	None	None	None	None	None

Elements of the Project where the Impacts are Likely to be Significant

No elements of the proposed stormwater tank overflow are likely to cause significant impacts on NATURA 2000 Sites.

Screening Conclusion

The likely impacts that will arise from the proposed BRDS stormwater tank overflow to the River Tolka have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network. None of the sites within 15km of the overflow location will be adversely affected. A finding of No Significant Effects Matrix has been completed and is presented in next section of this Screening Statement.

On the basis of the findings of this Screening for Appropriate Assessment of Natura 2000 Sites, it is concluded that the proposed BRDS stormwater tank overflow will not have a significant effect on the Natura 2000 network, alone or in-combination with other plans or projects, and a Stage 2 Appropriate Assessment is not required.

Finding of No Significant Effects Report Matrix

Name of project or plan	
Name and location of Natura 2000 site	South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC North Dublin Bay SAC
Description of the project or plan	The project subject to AA Screening is an overflow to the River Tolka from proposed stormwater tanks which form part of the Blanchardstown Regional Drainage Scheme. Underground Storage Tanks will be located within an existing park to balance combined sewer flows before controlled discharge into the Existing 9C sewer network. The tanks provide emergency overflow facilities to the River Tolka for return periods in excess of 5 years in accordance with DOEHLG's 'Procedures and criteria in relation to Stormwater Overflows'. The proposed technical amendment to the Ringsend Licence (D0034-01) is for the addition of this overflow location.
Is the project or plan directly connected with or necessary to the management of the site?	No.
Are there other projects or plans that together with the project or plan being assessed could affect the site?	No.
The Assessment of Significance of Effects	
Describe how the project or plan (alone or in combination) is likely to affect the European Site(s).	The existing 9C Sewer is regularly subject to flows in excess of the original design capacity. As a result, uncontrolled spills to the Tolka River occur from time to time when surcharging occurs in the existing sewers and excess flows discharge to the surface via the existing manholes. The proposed 9CSD project will provide additional capacity and therefore reduce frequency of surcharge and the likelihood of uncontrolled spills. The stormwater tanks will provide 30,000 m^3 of storage, which will limit such emergency discharges to storm events with a return period of greater than 5 years. The overflow has been designed to be compliant with relevant guidelines. It is further noted that any overflow discharge would be very dilute due to the high volume of stormwater. It is expected that the BRDS scheme will result in an improvement in water quality in the River Tolka, and that as any stormwater overflow will occur so

	infrequently and be highly diluted, there will be no detrimental effect on water quality at a local scale.
Explain why these effects are not considered significant.	The relevant Natura 2000 sites are located at a significant distance from the overflow location, the closest site being South Dublin Bay and River Tolka Estuary SPA over 10km downstream. With any dilute infrequent overflow not likely to impact locally, there is no potential for impacts to water quality in the Tolka Estuary given the distance involved. Furthermore, species for which the relevant sites are designated are adapted to nutrient and sediment rich environments and are not considered sensitive to such distant water quality pressures. On the basis of the findings of this Screening for Appropriate Assessment of Natura 2000 Sites, it is concluded that the proposed BRDS stormwater tank overflow will not have a significant effect on the Natura 2000 network, alone or in-combination with other plans or projects, and a Stage 2 Appropriate Assessment is not required.
List of agencies consulted: provide contact name and telephone or e-mail address.	N/A
Response to consultation.	N/A
Data Collected to Carry Out the Assessment	
Who carried out the assessment?	Qualified Ecologist, Irish Water
Sources of data	NPWS database; EPA database; WFD Ireland database; and Information from Irish Water.
Level of assessment completed	Desktop survey
Where can the full results of the assessment be accessed and viewed?	EPA
Overall Conclusion	Stage 1 Screening indicates that the proposed BRDS stormwater tank overflow will not have a significant negative impact on the Natura 2000 network. Therefore, a Stage 2 'Appropriate Assessment' under Article 6(3) of the Habitats Directive 92/43/EEC is not required.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BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME
9C SEWER DUPLICATION & TOLKA VALLEY PUMPING STATION

PLANNING APPLICATION

MAY 2017

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BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME
9C SEWER DUPLICATION & TOLKA VALLEY PUMPING STATION

DRAWING LIST

W3036/3001 COVER
W3036/3002 DRAWING INDEX
W3036/3003 KEY MAP
W3036/3004 SITE LOCATION MAP SHEET 1 OF 3
W3036/3005 SITE LOCATION MAP SHEET 2 OF 3
W3036/3006 SITE LOCATION MAP SHEET 3 OF 3
W3036/3007 OVERALL SCHEME LAYOUT
W3036/3101 SITE PLAN & LONGSECTION SHEET 1 OF 6
W3036/3102 SITE PLAN & LONGSECTIONS SHEET 2 OF 6
W3036/3103 SITE PLAN & LONGSECTIONS SHEET 3 OF 6
W3036/3104 SITE PLAN & LONGSECTIONS SHEET 4 OF 6
W3036/3105 SITE PLAN & LONGSECTIONS SHEET 5 OF 6
W3036/3106 SITE PLAN & LONGSECTIONS SHEET 6 OF 6
W3036/3200 PUMPING STATION PLAN, SECTIONS AND ROOF PLAN
W3036/3201 PUMPING STATION ELEVATIONS
W3036/3202 PUMPING STATION ELEVATIONS WITH BOUNDARIES
W3036/3203 STORAGE TANKS PLANS AND SECTIONS
W3036/3219 PROPOSED SURFACE LEVEL COVER LAYOUT
W3036/3220 PROPOSED SITE LAYOUT INCLUDING LANDSCAPING
W3036/3301 MISCELLANEOUS DETAILS PROPOSED SITE ACCESS WATERVILLE DISTRIBUTOR ROAD
W3036/3302 MISCELLANEOUS DETAILS PROPOSED TELEMETRY KIOSK, VENT STACK & PIPE CROSS SECTION - TYPICAL DETAILS

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A1

KEY MAP
SCALE 1:50,000

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11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN / IRISH WATER

PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: KEY MAP

STATUS: PLANNING

Date: 14/03/17	Scale: AS SHOWN	Drawn: MS	Chkd: AMcC	Appd: AS
Project No: W3036	Drg. No: W3036/3003			Rev: P1

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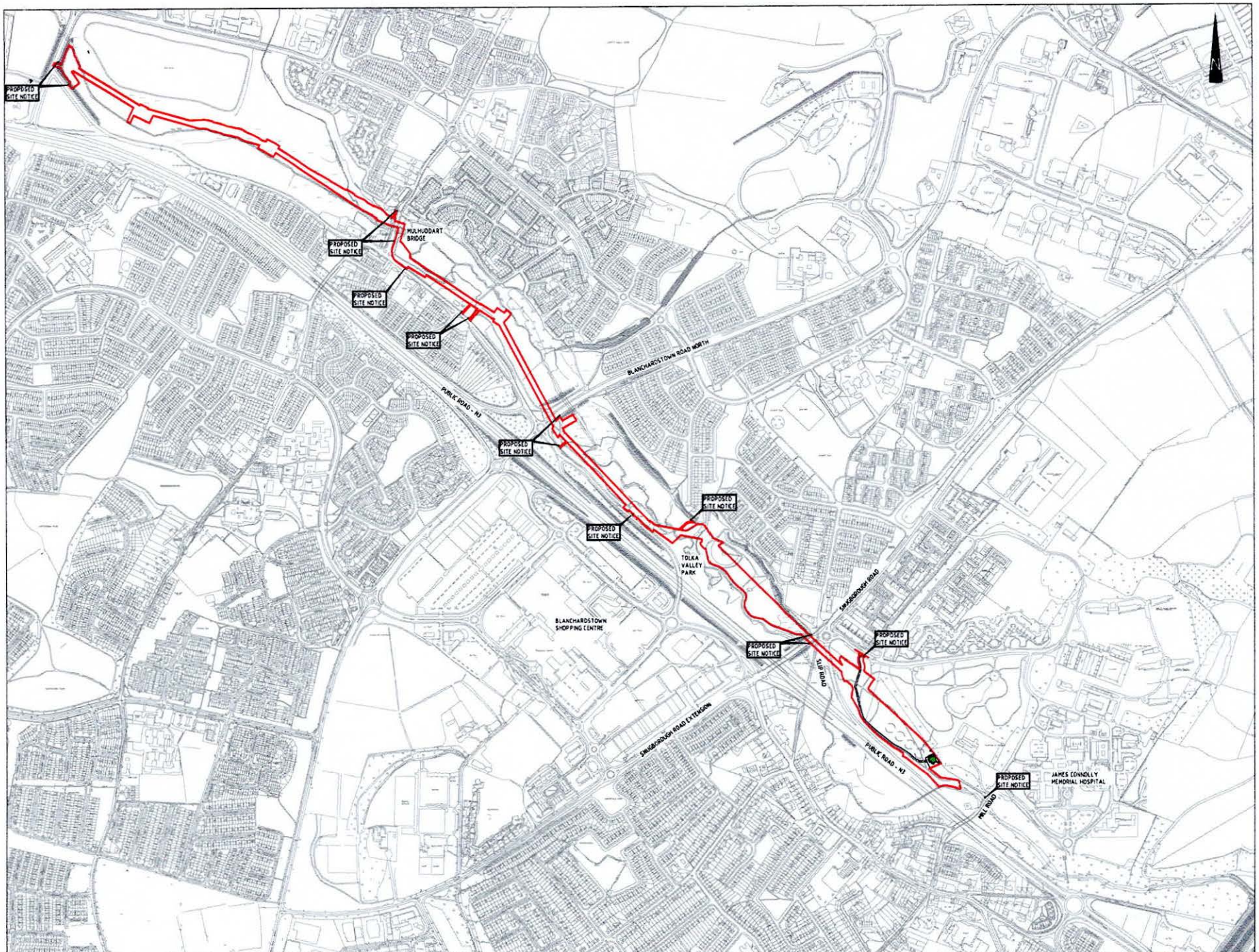

LEGEND

PROPOSED DEVELOPMENT BOUNDARY

OS TILE REFERENCE
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3866-C & D,
3902-C,
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3125-A,B & C,
3138-16,
3139-A & C

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Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN - IRISH WATER

PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
SITE LOCATION MAP
SHEET 1 OF 3

STATUS
PLANNING

Date: 16/03/17	Scale: AS SHOWN	Drawn: MS	Chk: ANC	App: ES
Project No: W3036	Drg. No: W3036/3804			Rev: P1

SITE LOCATION MAP
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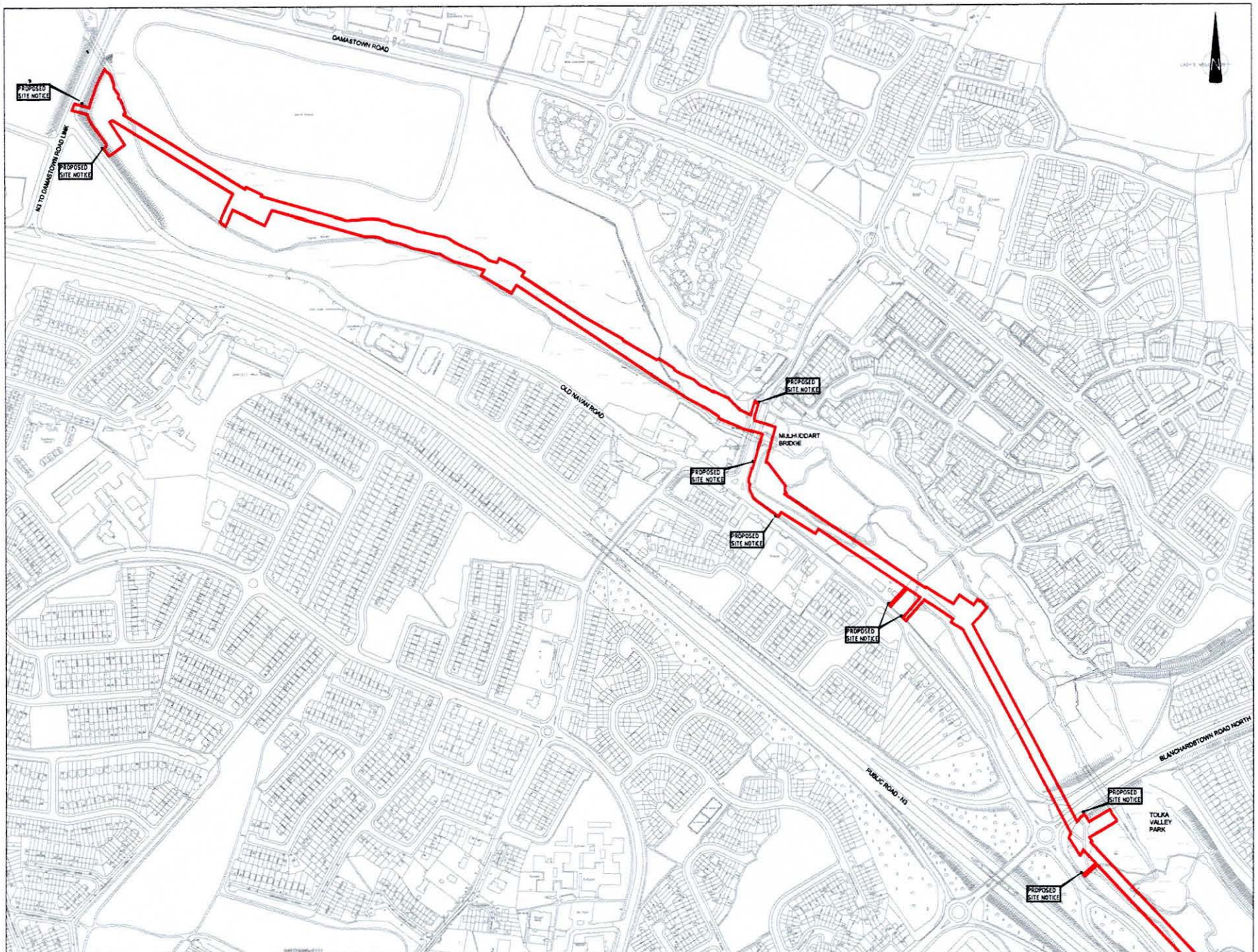

SITE LOCATION MAP
SCALE 1:2500

Ordnance Survey Ireland

LEGEND

PROPOSED DEVELOPMENT BOUNDARY

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3692-C,
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3129-A,B & C,
3139-16,
3139-A & C

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Rev	Date	Description	By	Chk	App

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UISCE ÉIREANN | IRISH WATER

PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
SITE LOCATION MAP
SHEET 2 OF 3

STATUS
PLANNING

Date: 16/05/17	Scale: AS SHOWN	Drawn: MS	Chk: AMcC	Appr: ES
Project No: W3836	Drg. No: W3836/3005			Rev: P1

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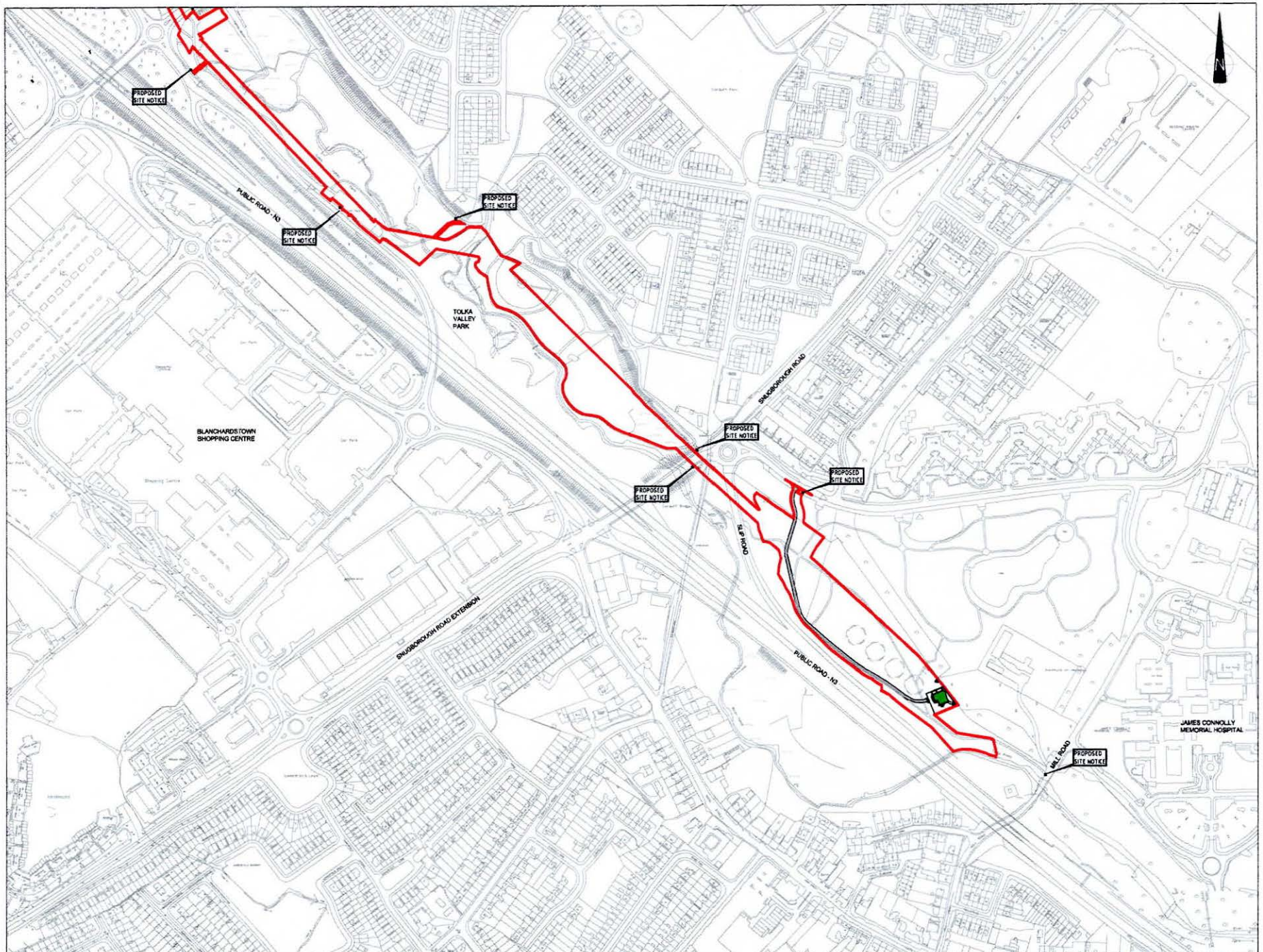

SITE LOCATION MAP
SCALE 1:2500

LEGEND

PROPOSED DEVELOPMENT BOUNDARY

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3062-C,
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3129-A,B & C,
3130-16,
3130-A & C

11-05-17 FW17A/0083
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Rev	Date	Description	By	Chk	App

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UISCE ÉIREANN : IRISH WATER

PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME SC
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
SITE LOCATION MAP
SHEET 3 OF 3

STATUS
PLANNING

Date: 16/03/17	Scale: AS SHOWN	Drawn: MS	Chk.: AMC	Appr.: EB
Project No: W3836	Drg. No: W3836/3806			Rev: P1

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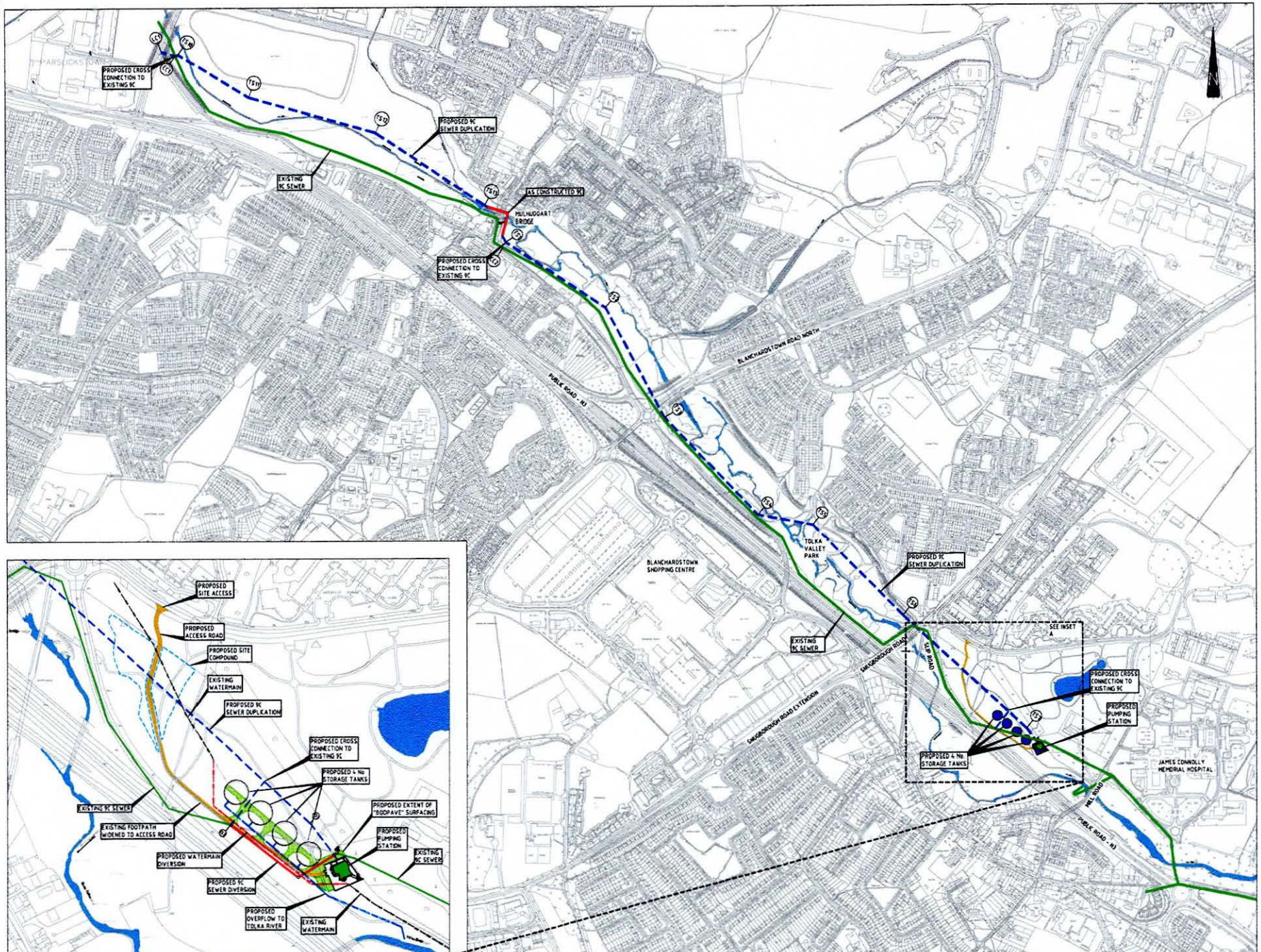

KEYPLAN
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INSET A
SCALE 1:2000

NOTES:

1. REFER TO DRG. No. W3036/3161 TO W3036/3164 FOR SITE PLAN AND LONGSECTION DETAILS.

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN : IRISH WATER

PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: OVERALL SCHEME LAYOUT

STATUS: PLANNING

Date: 16/05/17	Scale: AS SHOWN	Drawn: MS	Chk: APE	App: ES
Project No: W3036	Drg. No: W3036/3007			Rev: P1

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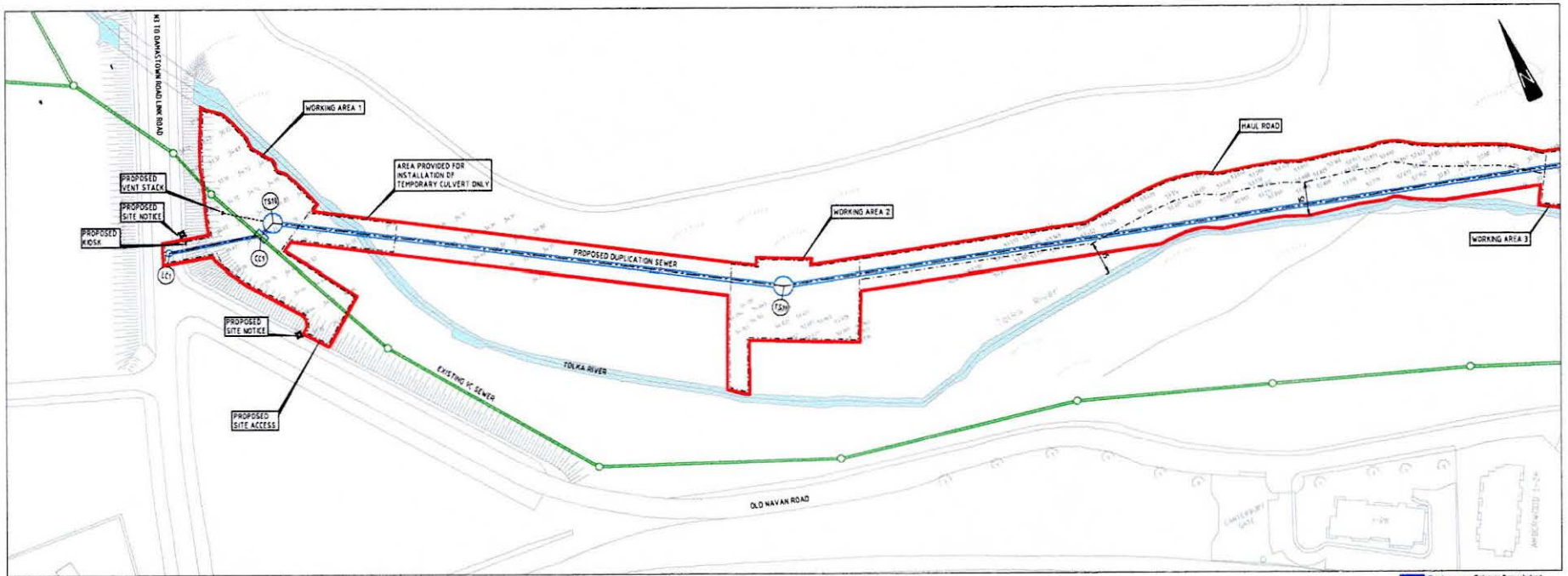


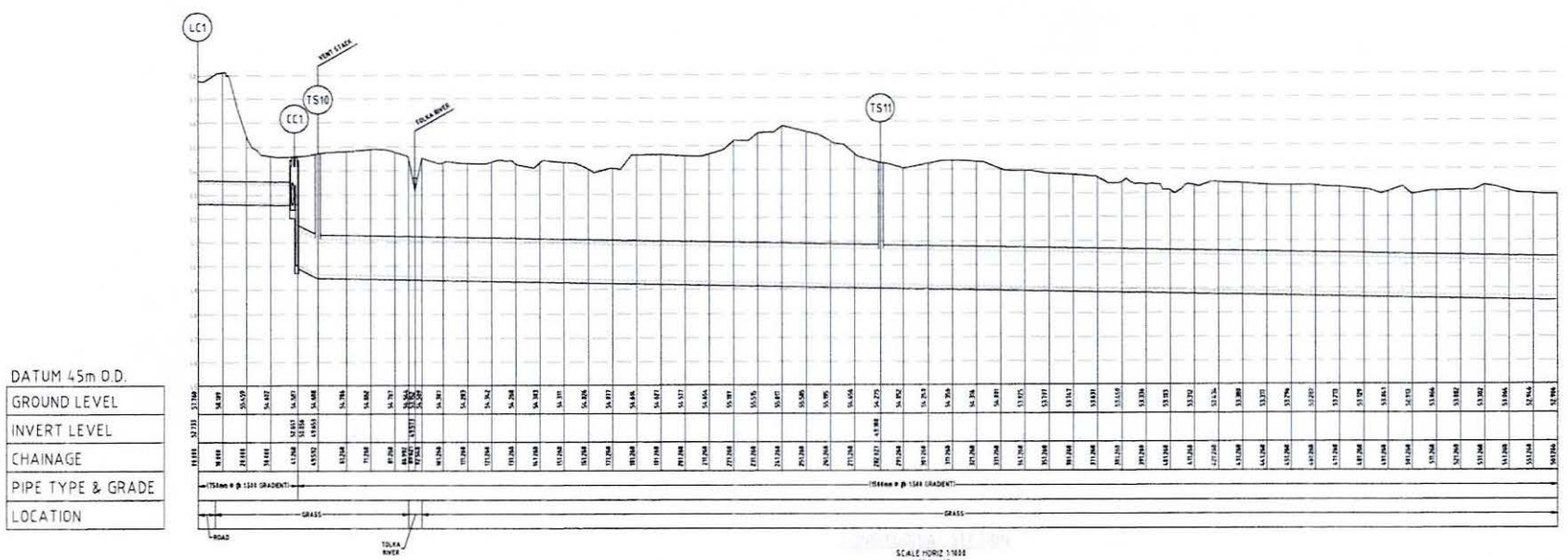
SITE PLAN - 1 OF 6
SCALE 1:1000

LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED 9C SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING 9C PIPELINE



11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN / IRISH WATER

PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: SITE PLAN & LONGSECTION SHEET 1 OF 6

STATUS: PLANNING

Date: 14/03/17	Scale: as shown	Drawn: MS	Chk: AMC	App: IS
Project No: W3836	Drg. No: W3036/3101			Rev: P1

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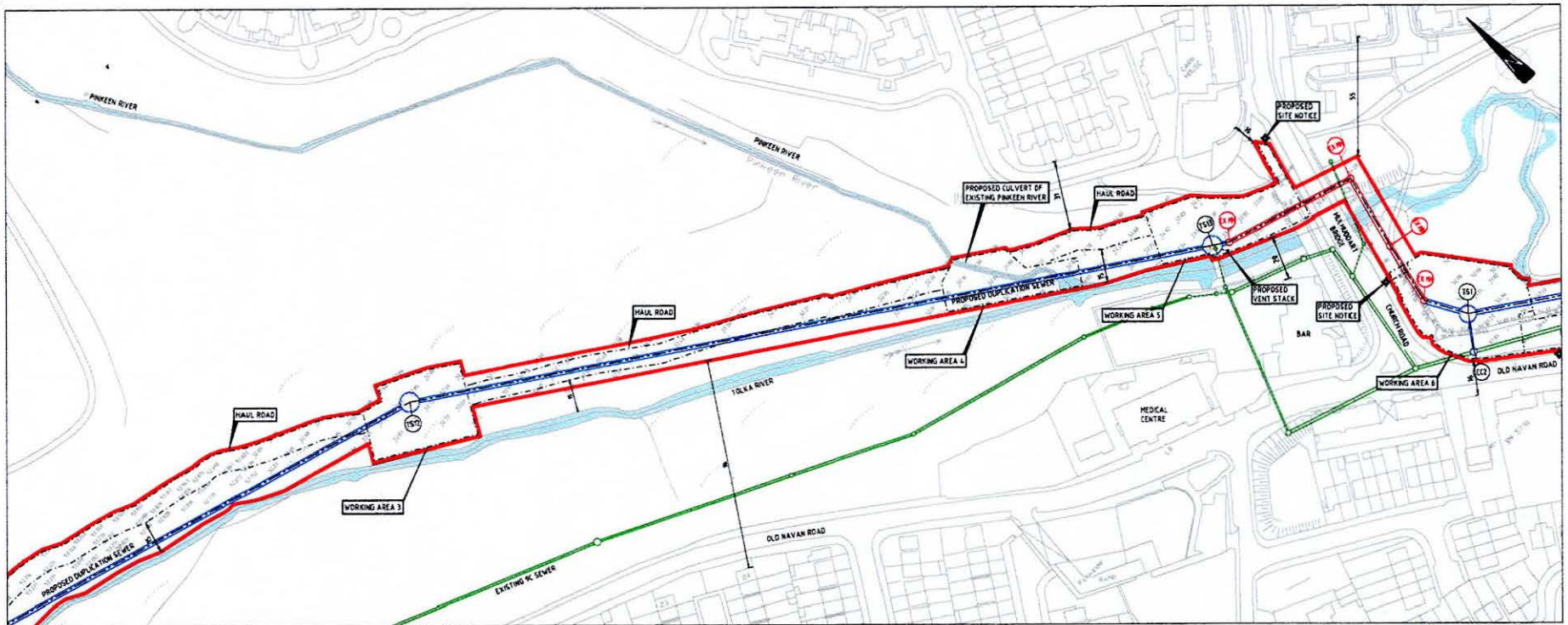

SITE PLAN - 2 OF 6
SCALE: 1:1000

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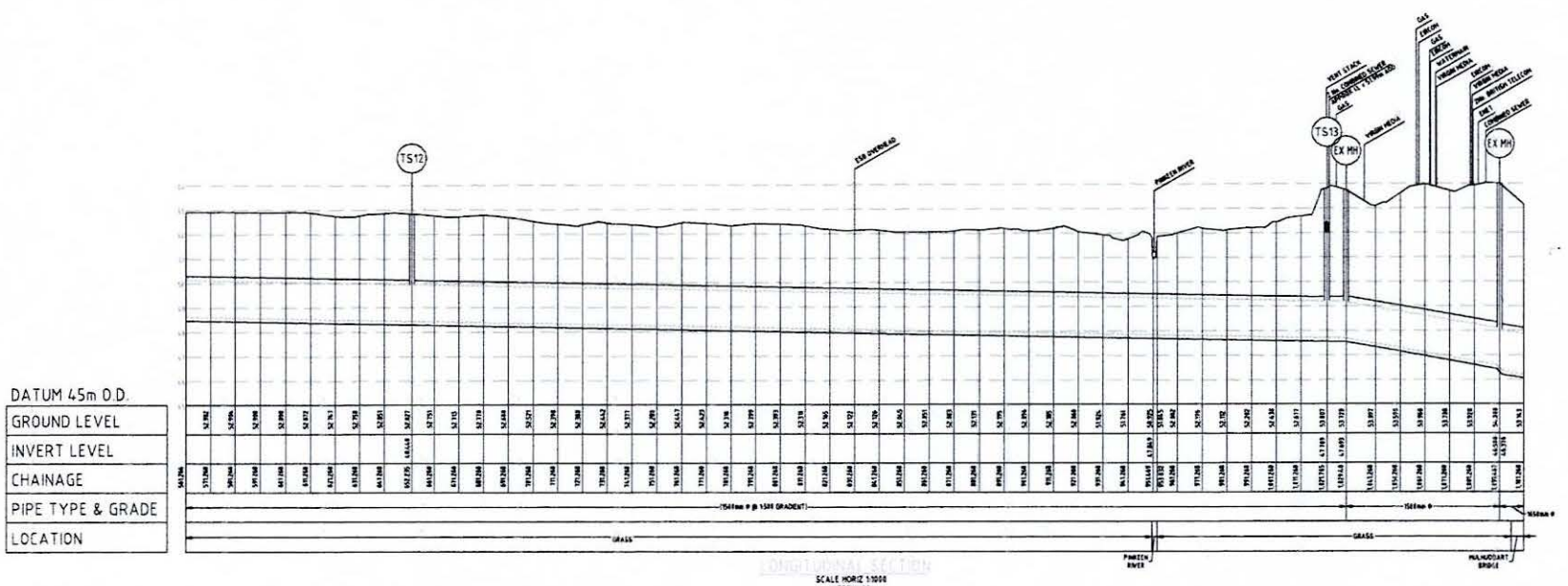
LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED 9C SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING 9C PIPELINE



DATUM 45m O.D.
GROUND LEVEL
INVERT LEVEL
CHAINAGE
PIPE TYPE & GRADE
LOCATION

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

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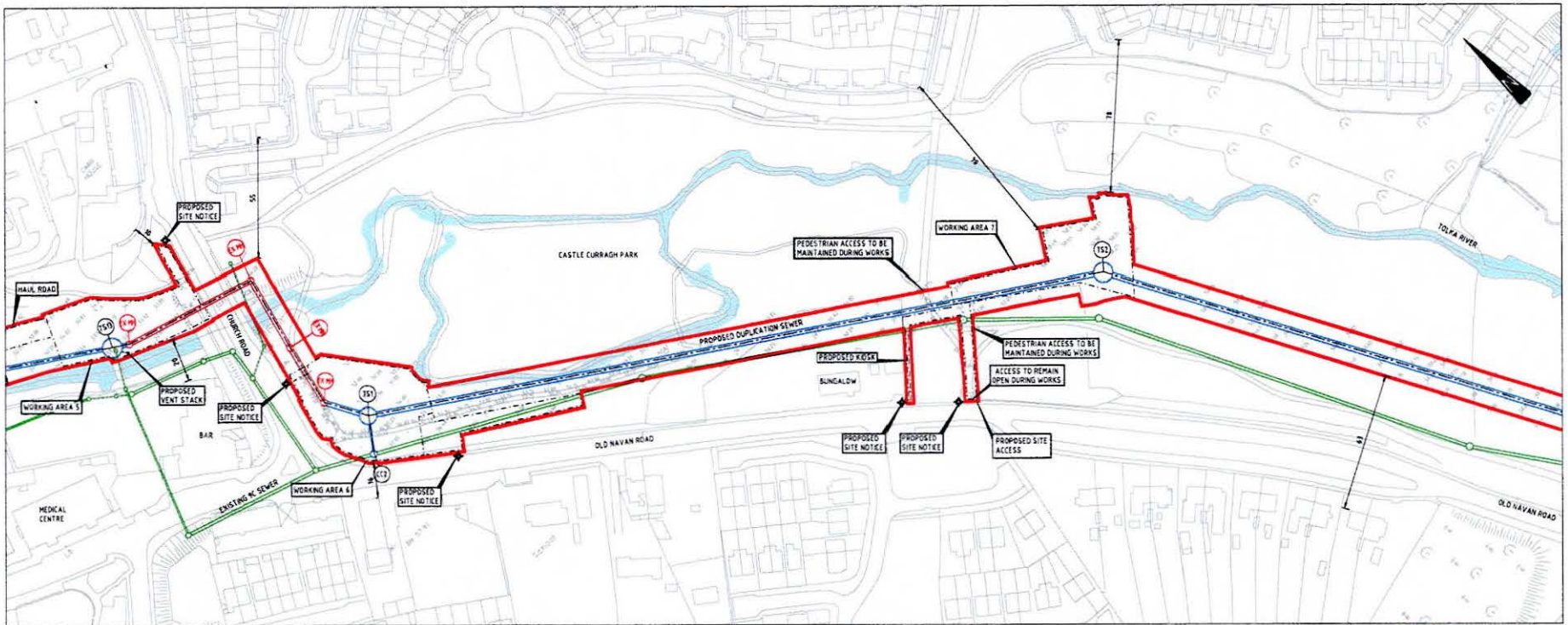
PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: SITE PLAN & LONGSECTIONS SHEET 2 OF 6

STATUS: PLANNING

Date: 14/05/17	Scale: AS SHOWN	Drawn: MS	Chk: APC	Appr: SS
Project No: W3836	Drg No: W3036/3102			Rev: P1

A1



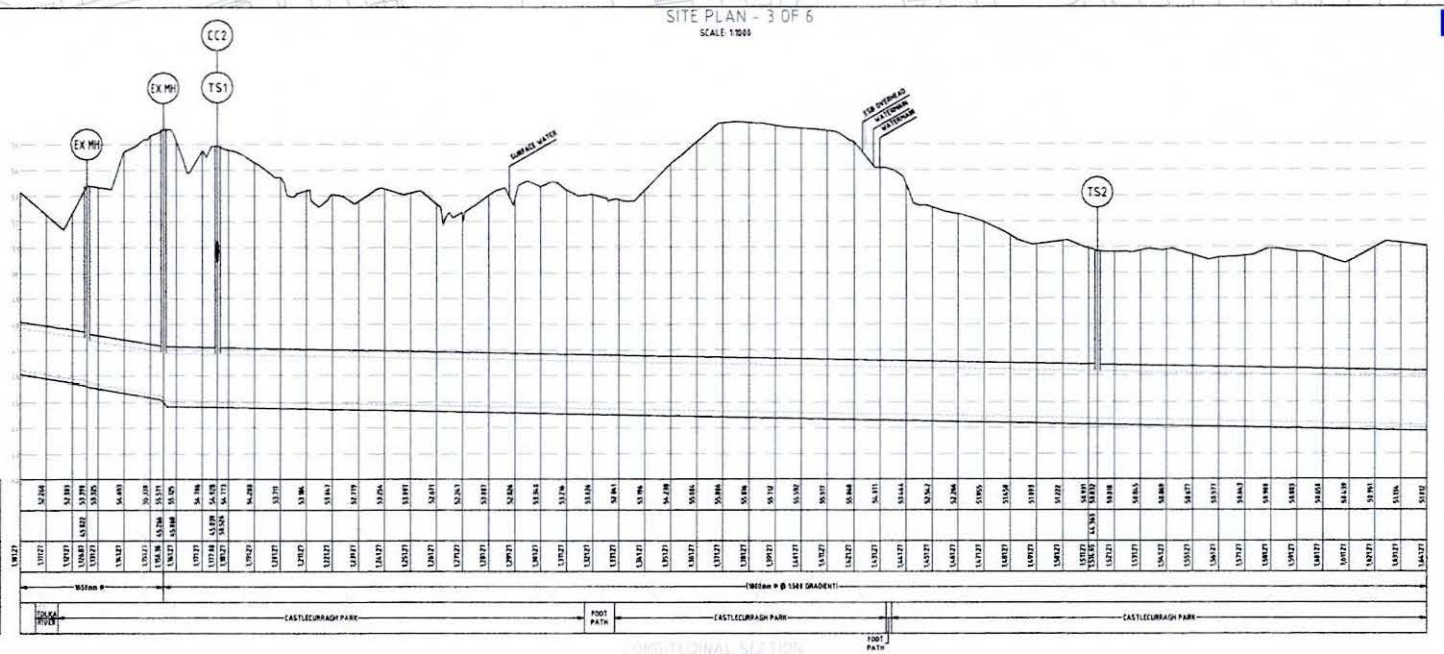
SITE PLAN - 3 OF 6
SCALE: 1:1000

LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED 9C SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING 9C PIPELINE



SCALE HORIZ 1:1000
VERT 1:100

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN - IRISH WATER

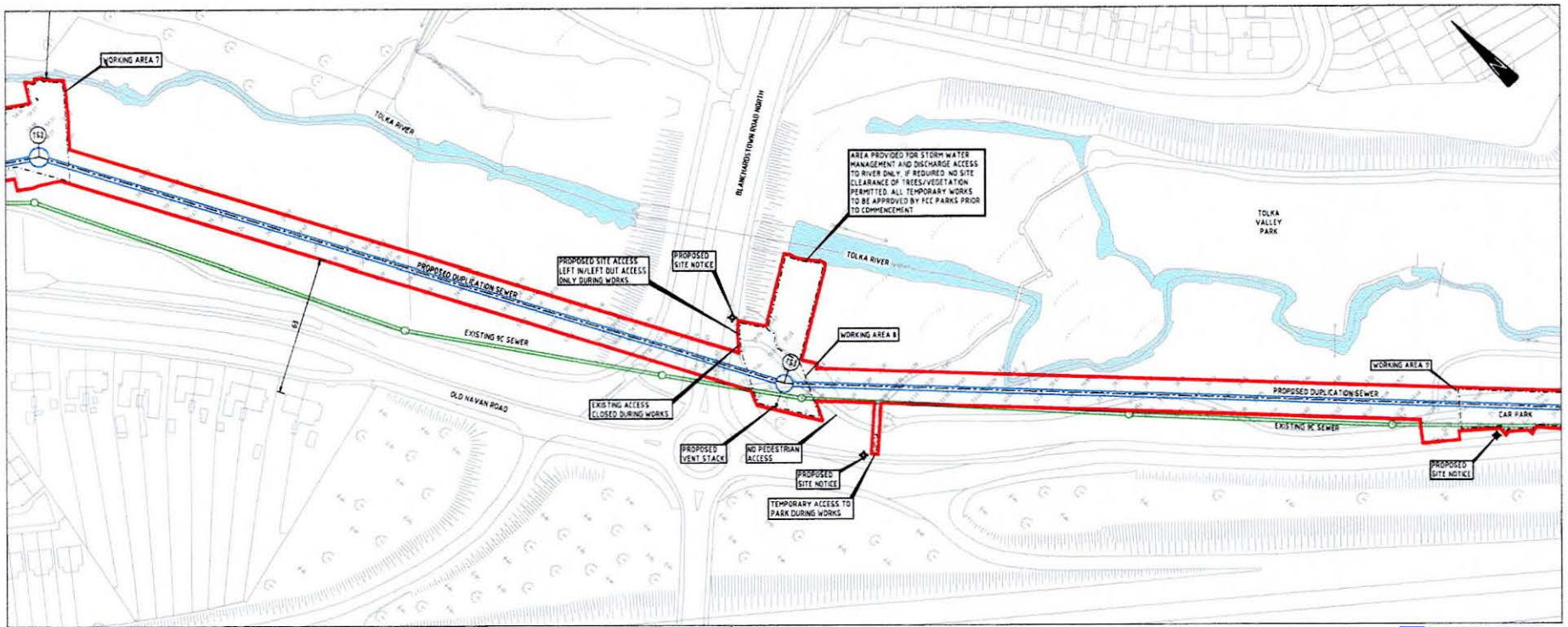
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
SITE PLAN & LONGSECTIONS
SHEET 3 OF 6

STATUS
PLANNING

Date: 14/03/17	Scale: as shown	Drawn: MS	Chk: AMC	App: IS
Project No: W3836	Drg. No: W3836/3103			Rev: P1

A1



LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED RC SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING RC PIPELINE

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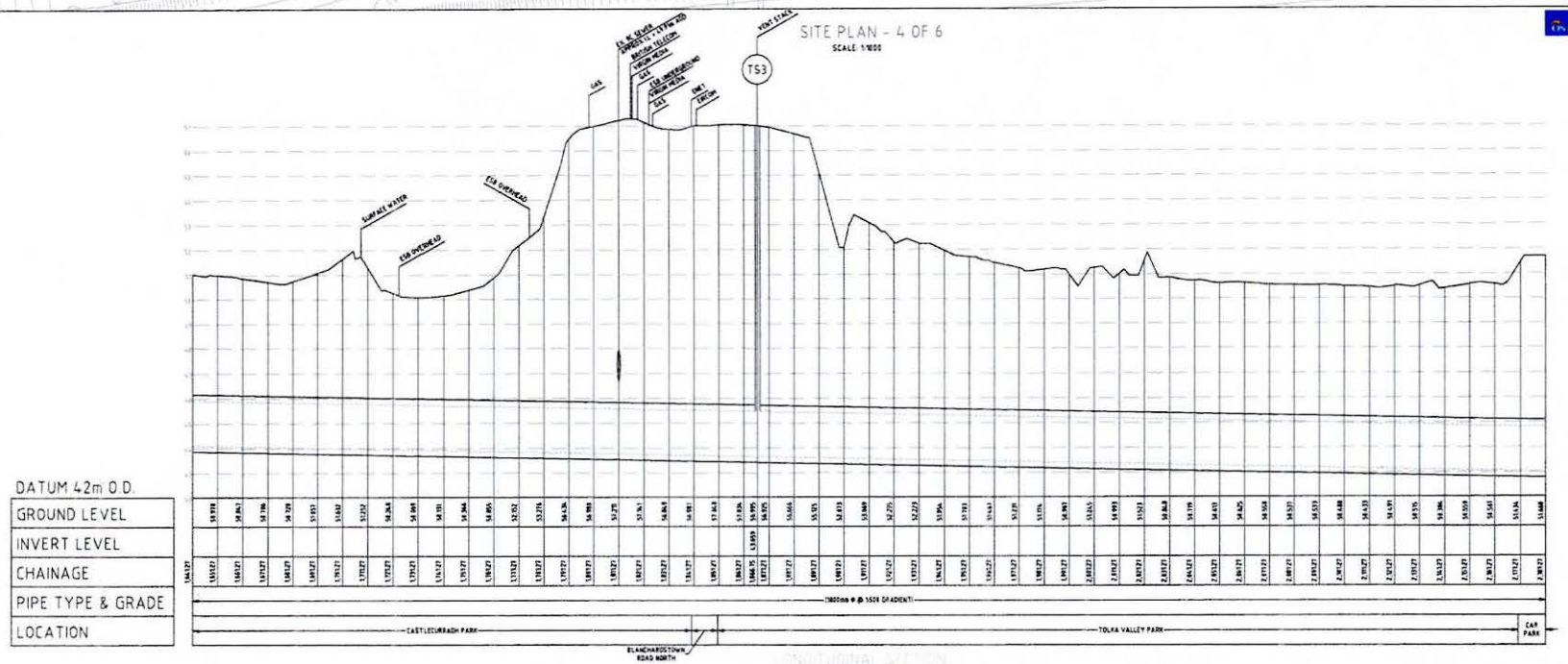
SITE PLAN - 4 OF 6

SCALE 1:1000



SCALE HORIZ 1:1000
VERT 1:100

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN | IRISH WATER

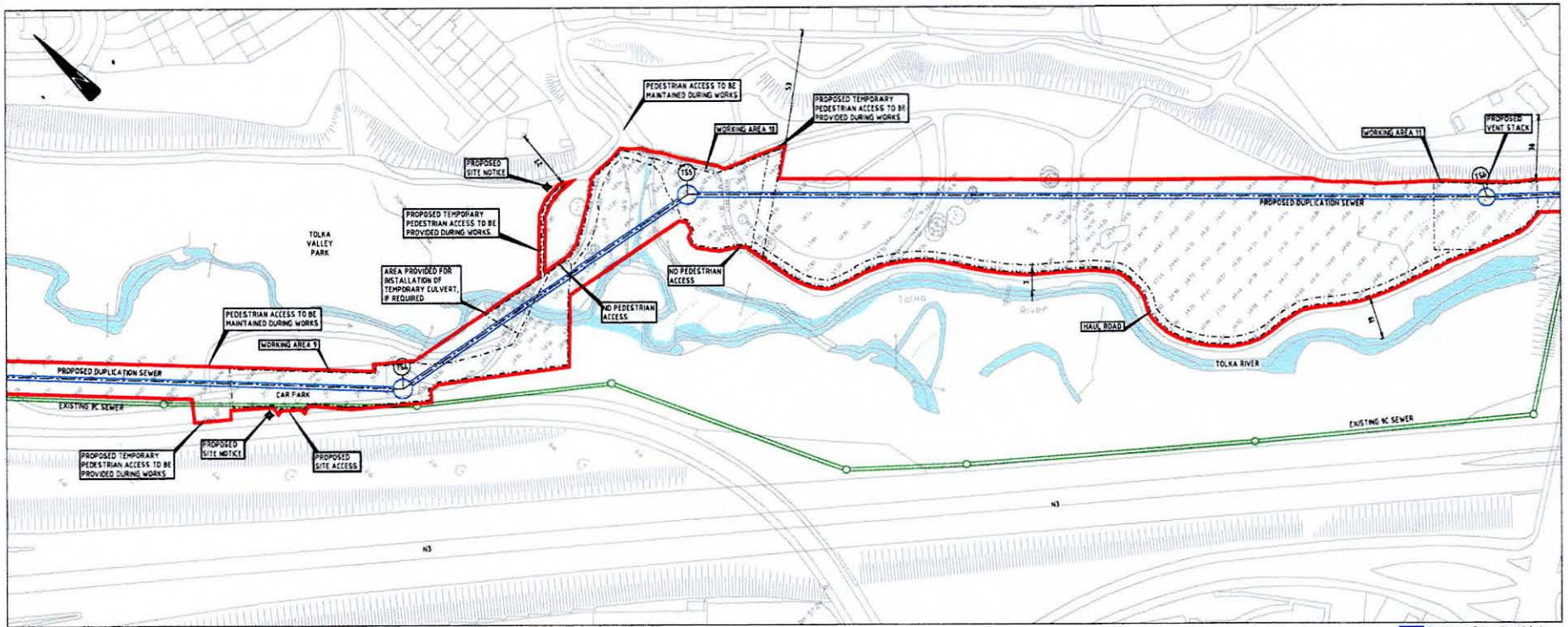
PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: SITE PLAN & LONGSECTIONS SHEET 4 OF 6

STATUS: PLANNING

Date: 16/05/17	Scale: AS SHOWN	Drawn: MS	Chk: AMC	App: ES
Project No: W3036	Drg. No: W3036/3104			Rev: P1

A1



SITE PLAN - 5 OF 6
SCALE 1:1000

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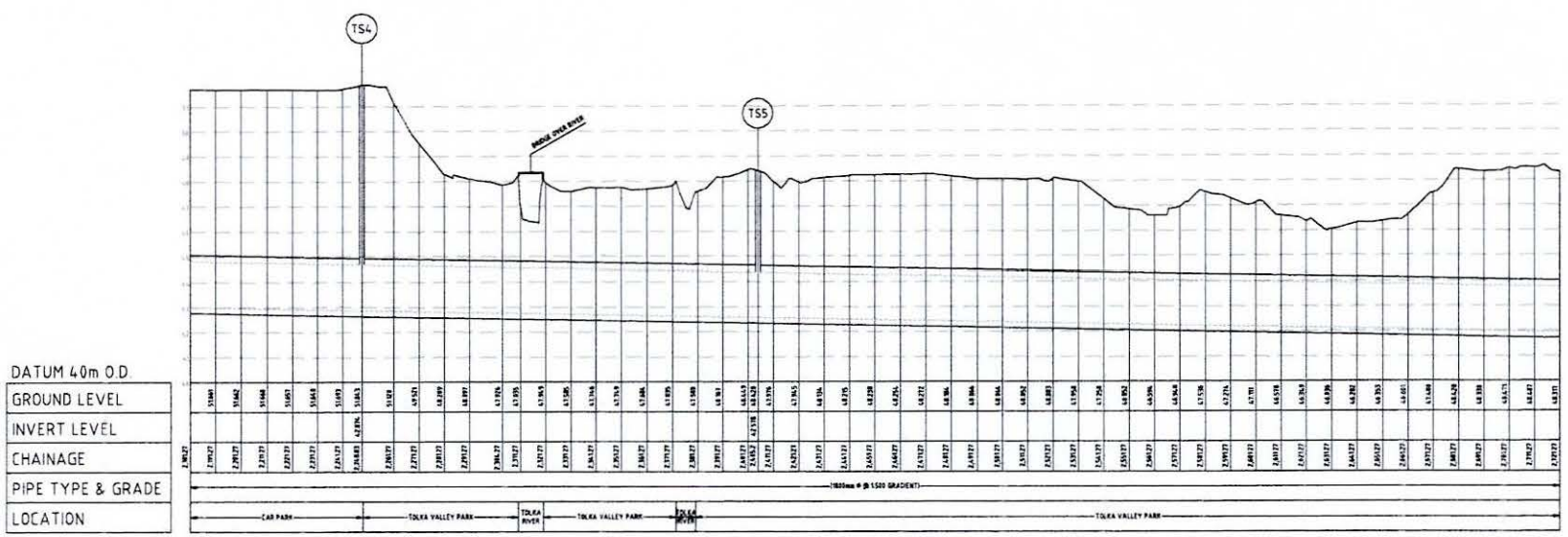
LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED 9C SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING 9C PIPELINE



LONGITUDINAL SECTION
SCALE HORIZ 1:1000
VERT 1:100

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN / IRISH WATER

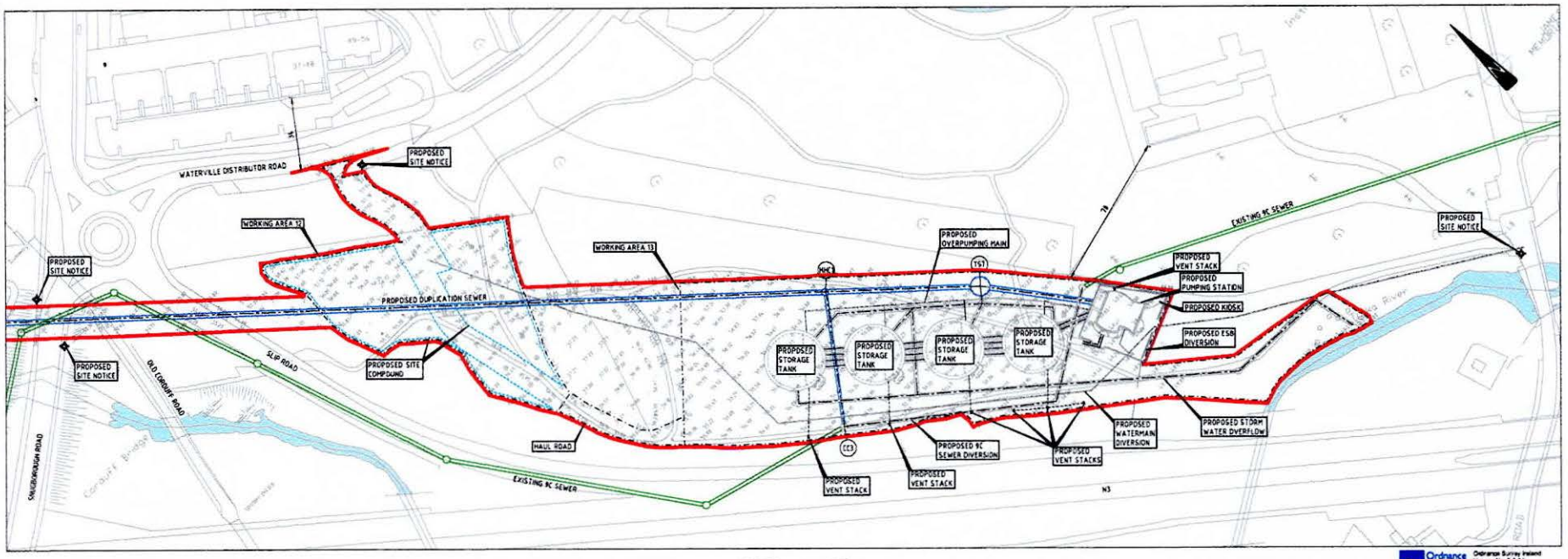
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
SITE PLAN & LONGSECTIONS
SHEET 5 OF 6

STATUS: PLANNING

Date: 16/03/17	Scale: AS SHOWN	Drawn: MS	Chk: ANS	App: EB
Project No: W3036	Drg. No: W3036/3105			Rev: P1

A1



LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED 9C SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING 9C PIPELINE

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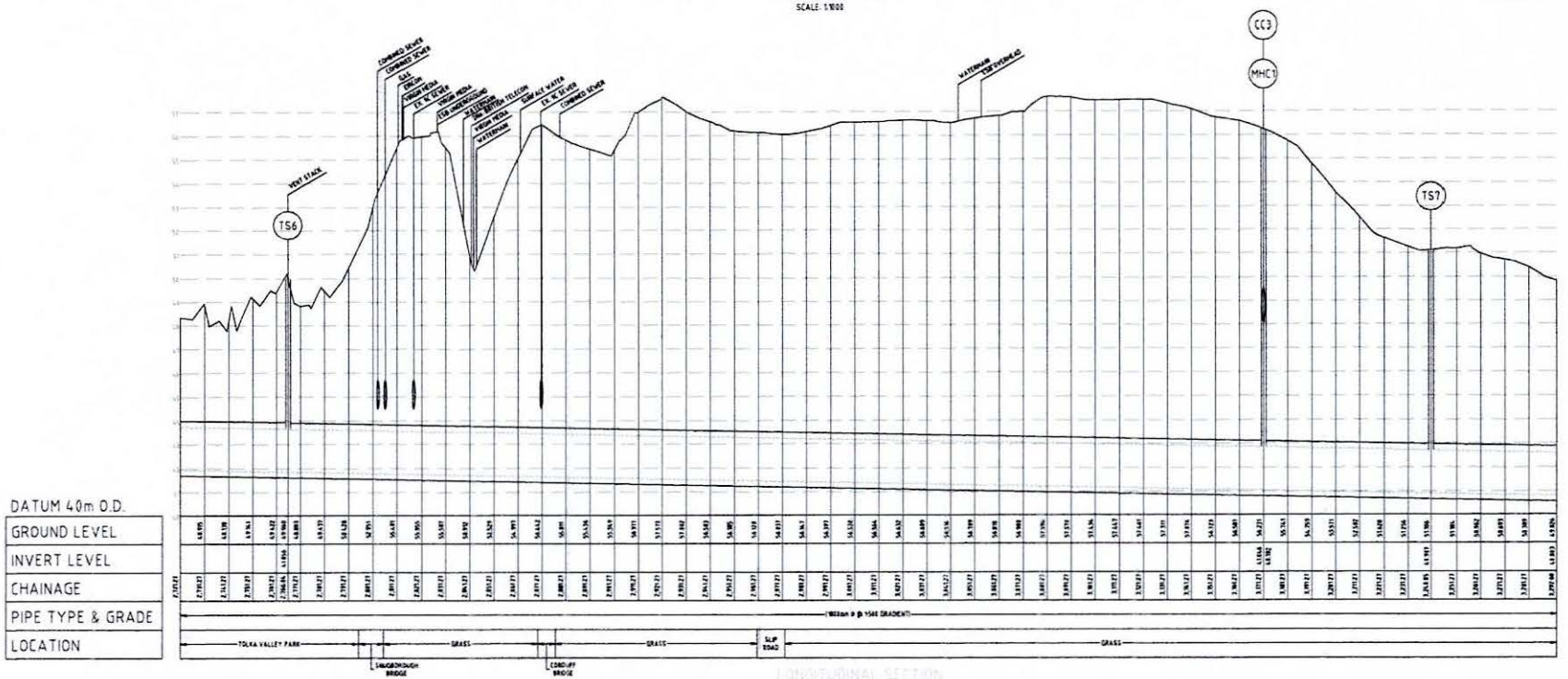
SITE PLAN - 6 OF 6
SCALE: 1:1000



LONGITUDINAL SECTION
SCALE HORIZ 1:1000
VERT 1:100

16-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN / IRISH WATER

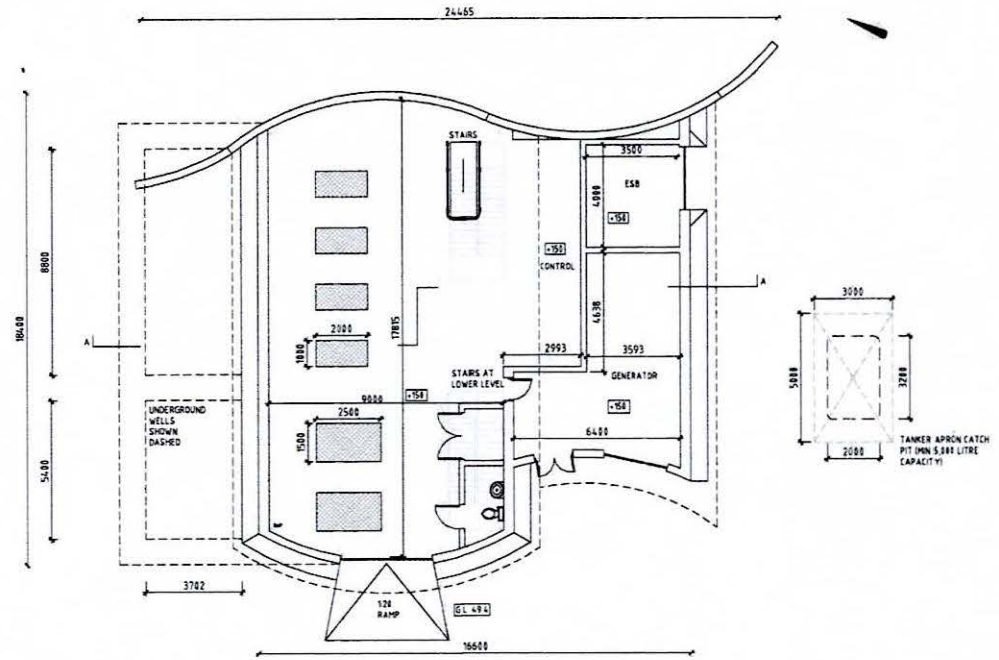
PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: SITE PLAN & LONGSECTIONS SHEET 6 OF 6

STATUS: PLANNING

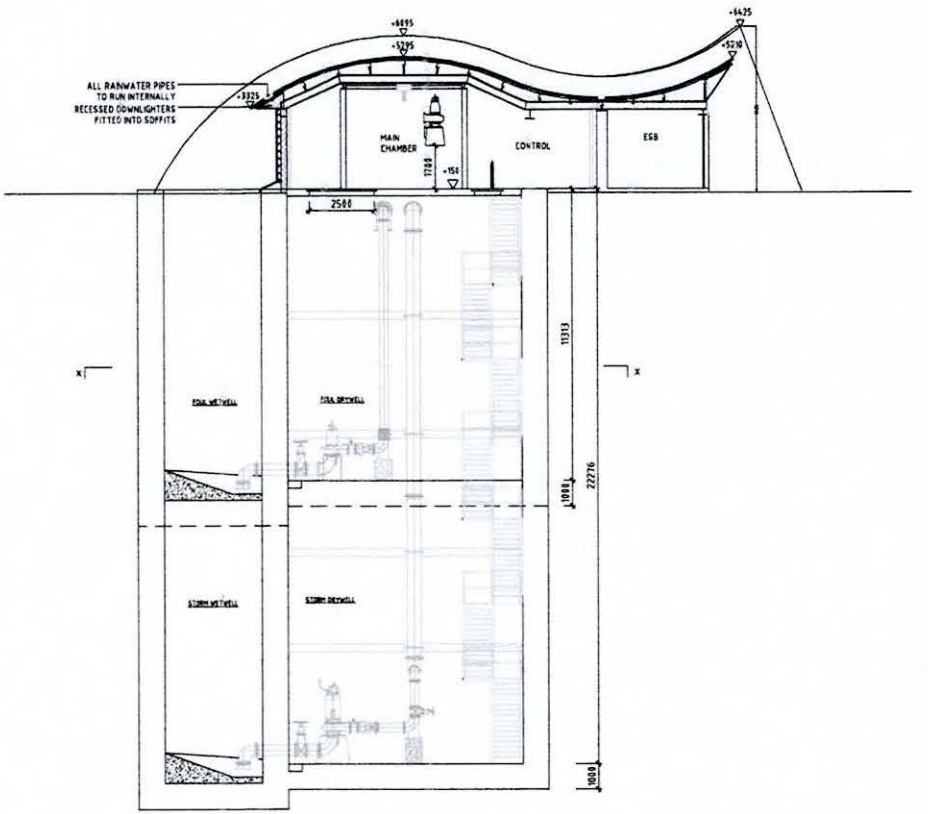
Date: 14/05/17	Scale: AS SHOWN	Drawn: MS	Chk: AMC	App: JS
Project No: W3036	Drg. No: W3036/3106			Rev: P1

A1



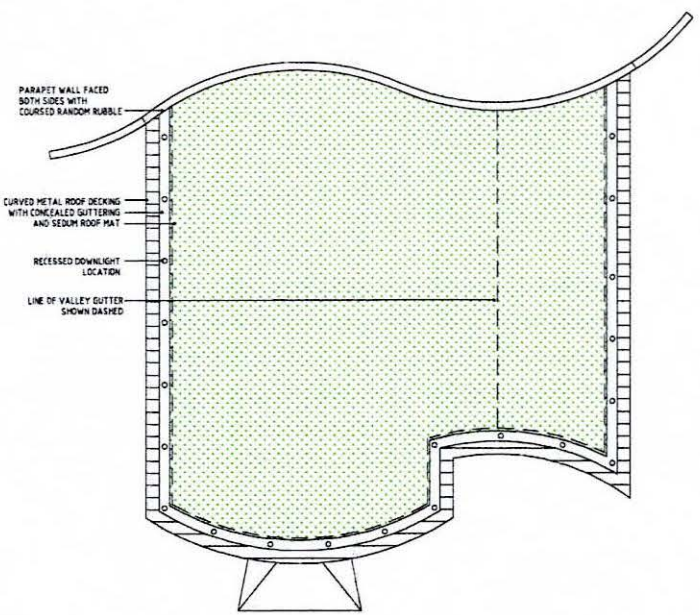
FLOOR PLAN

SCALE 1 : 100



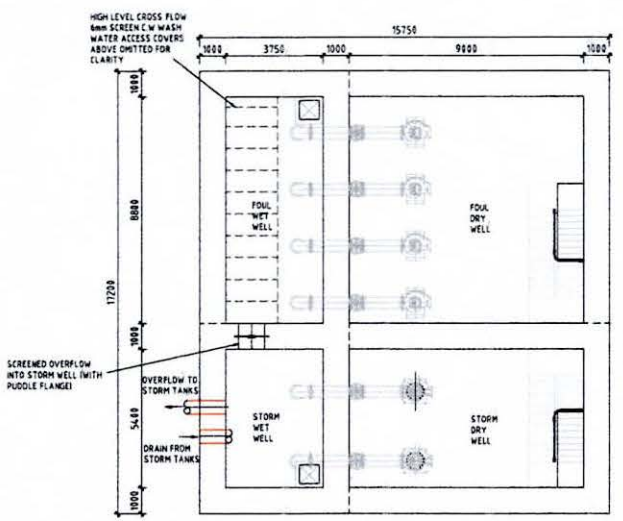
SECTION A-A

SCALE 1 : 100



ROOF PLAN

SCALE 1 : 100



SECTION X-X

SCALE 1 : 100

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

ARCHITECT
Paul O'Toole, Architects

CLIENT
UISCE ÉIREANN | IRISH WATER

PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

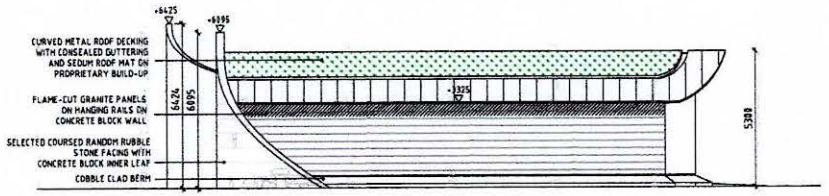
DRAWING TITLE
PUMPING STATION
PLAN, SECTIONS AND ROOF PLAN

STATUS
PLANNING

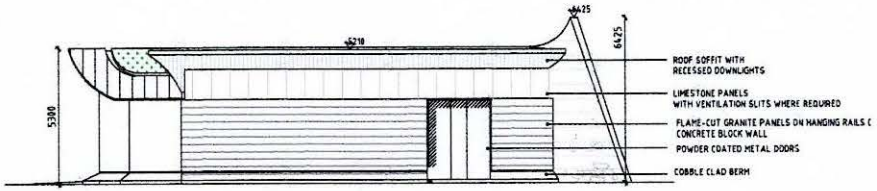
Date:	Scale: AS SHOWN	Drawn: MS	Chk:	App:

Project No: W3036 | Drg. No: W3036/3202 | Rev: P1

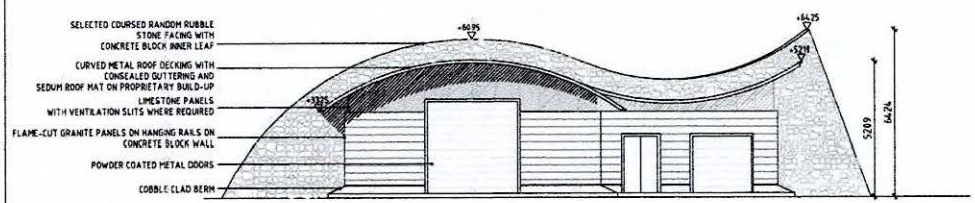
A1



NORTH ELEVATION
SCALE 1:100



SOUTH ELEVATION
SCALE 1:100



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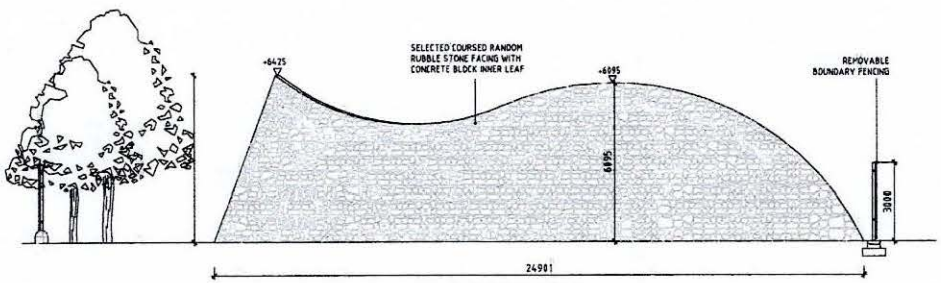
SCALE 1:100



EAST ELEVATION
SCALE 1:100

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

ARCHITECT
Paul O'Toole, Architects

CLIENT
UISCE ÉIREANN | IRISH WATER

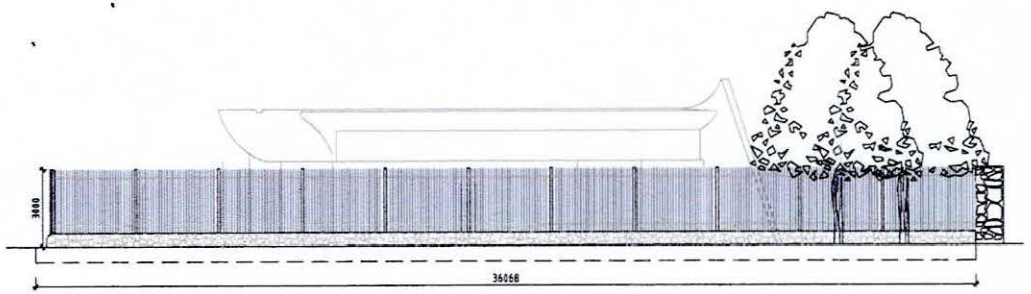
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
PUMPING STATION
ELEVATIONS

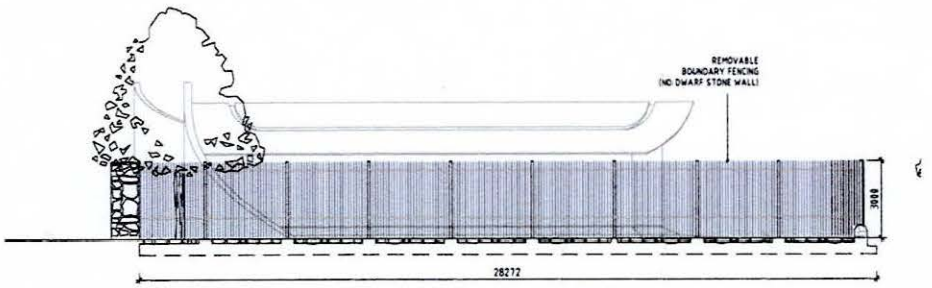
STATUS
PLANNING

Date: 14/03/17	Scale: AS SHOWN	Drawn: MS	Chk: APOC	App: LS
Project No: W3036	Drg. No: W3036/3202			Rev: P1

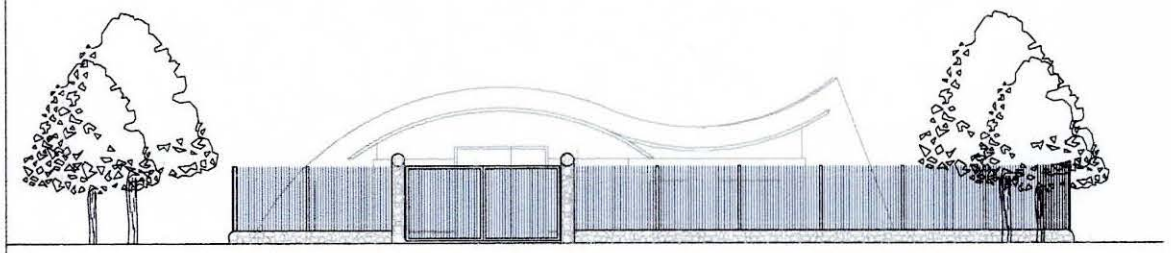
A1



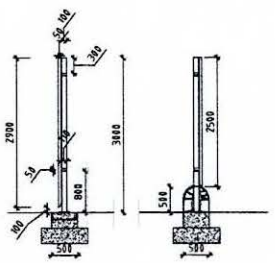
SOUTH ELEVATION WITH BOUNDARY
SCALE 1:100



NORTH ELEVATION WITH BOUNDARY
SCALE 1:100



WEST ELEVATION WITH BOUNDARY
SCALE 1:100



SECTION THROUGH BOUNDARIES
SCALE 1:50

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

ARCHITECT
Paul O'Toole, Architects

CLIENT
UISCE ÉIREANN | IRISH WATER

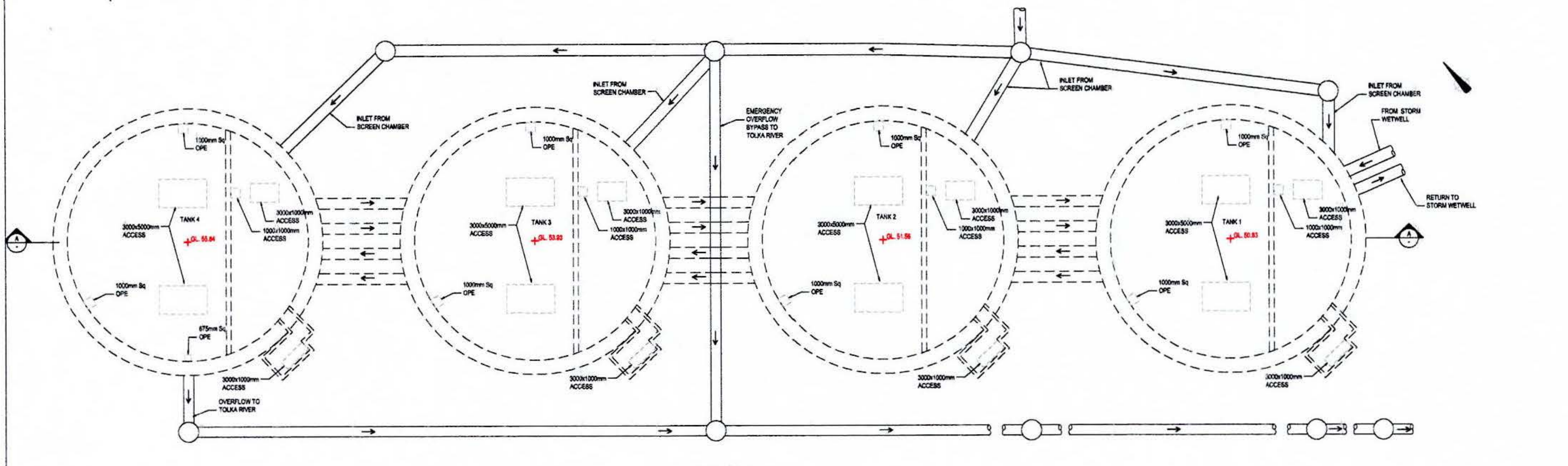
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
PUMPING STATION
ELEVATIONS

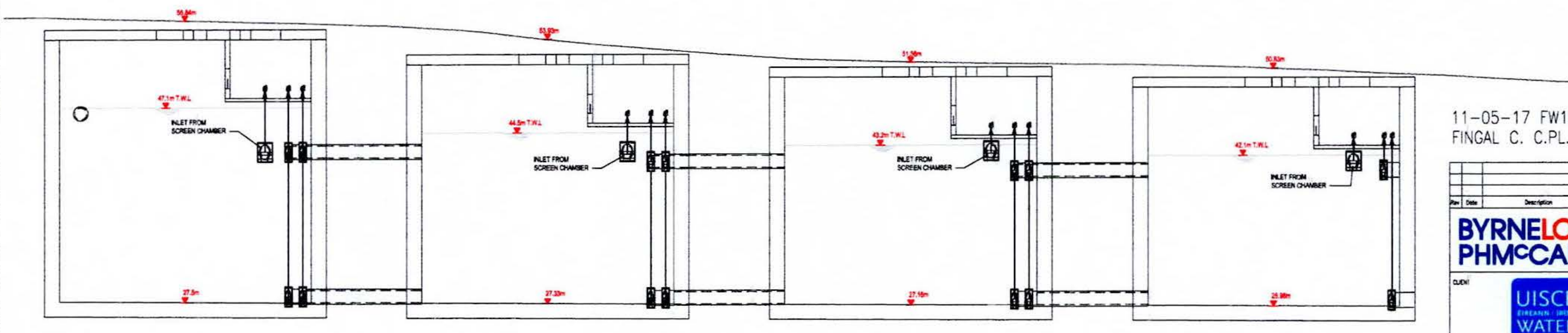
STATUS
PLANNING

Date:	Scale: as above	Drawn: MS	Chk:	App:
Project No: W3936	Drg. No: W3936/3202			Rev: P1

A1



LAYOUT PLAN
SCALE 1 : 200



SECTION A-A
SCALE 1 : 200

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNELOOBY PHMcCARTHY

CLIENT
UISCE ÉIREANN : IRISH WATER

PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
STORAGE TANKS
PLANS AND SECTIONS

STATUS
PLANNING

Project No: W3036 | Drg. No: W3036/3283 | Rev: P1

A1

SURFACE LEVEL COVER LAYOUT
SCALE 1:250

LEGEND:

PROPOSED ACCESS ROAD

EXISTING FOOTPATH

PROPOSED REINFORCED GRASS SURFACING

PROPOSED MAN ACCESS BASKET (BURIED)

PROPOSED MANHOLE LID

NOTES:

1. ACCESS HATCHES FOR TANK 2, 3 & 4 IDENTICAL THOSE INDICATED ON TANK 1 WITH THE EXCEPTION OF THE OVERFLOW JETTING ACCESS & EQUIPMENT REMOVAL ACCESS IN STORAGE TANK No.1
2. REFER TO REINSTATEMENT PLAN APPENDIX 13.2 OF THE EIS FOR FULL REINSTATEMENT DETAILS

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN : IRISH WATER

PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: PROPOSED SURFACE LEVEL COVER LAYOUT

STATUS: PLANNING

Date: 16/03/17	Scale: AS SHOWN	Drawn: MS	Chk: MMC	App: RS
Project No: W3036	Drg. No: W3036/3219			Rev: P1

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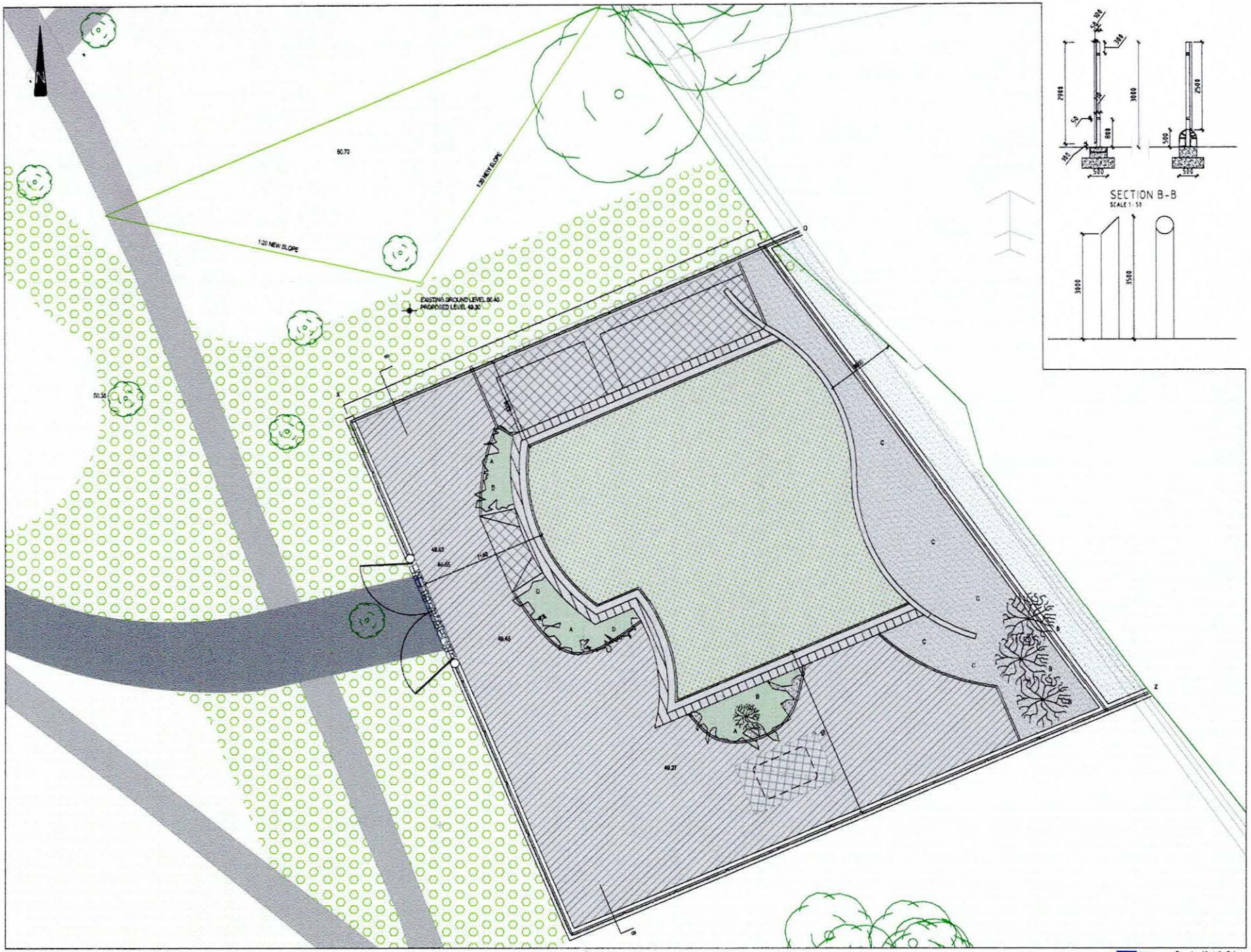
A1



PROPOSED LANDSCAPE PLAN
SCALE 1:100

SECTION B-B
SCALE 1:50

NO DWARF WALL FROM 'X' TO 'Y' LINE OF STONES TO BE LAID FLUSH WITH GROUND SAME WIDTH AS DWARF WALL RAILING SECTIONS DEMOUNTABLE AND POSTS REMOVABLE BETWEEN 'X' & 'Y'

PLANT LEGEND

A VINCA MAJOR PERIWINKLE
B BETULA PENDULA SILVER BIRCH
C STIPA GIAGANTIA
D MOLINIA CAERULEA

PLANTING SPECIFICATION
FORM KERBS TO ALL PLANTED AREAS WITH SELECTED STONE EDGING PREPARE PLANTING AREAS. -DIG 500mm, LOOSEN BASE ADD DRAINAGE GRAVEL IF REQUIRED PROVIDE 500mm WEED/STONE FREE TOP SOIL PLANT TREES WITH STAKES. PLANT GRASSES AT RECOMMENDED SPACING PLANT VINCA MAJOR GROUND COVER AT REGULAR SPACING LAY WEED SUPPRESSING MEMBRANE, STAKED DOWN AT REGULAR INTERVALS & ENSURE NO EXPOSED EDGES OR HUMPS COVER ALL WITH SELECTED GRAVEL/MULCH

SEDUM BLANKET TO ROOF AS PER SUPPLIER'S SPECIFICATION

RECOMMEND IRREGULAR EDGE LINE FOR GRASSCRETE

3000mm HIGH PERIMETER RAILINGS WITH DWARF WALL ENCLOSING ENTIRE SITE NORTHWEST & SOUTHEAST RAILINGS TO RUN BEYOND NORTHEAST BOUNDARY AND CONNECT TO EXISTING STONE WALL AT 'O' AND 'Z'

LEGEND

- PERMEABLE PAVING
- CONCRETE
- GRAVEL
- REINFORCED GRASS SURFACING

RAILING DETAIL

ALL ELEMENTS TO BE GALVANISED AND TO SIT ON STRIP/PAD FOUNDATIONS TO ENGINEERS' DETAIL

2500x50x4mm STEEL FLATS WITH CHAMFERED END ITO PREVENT TOEHOLD & TO DETER CLIMBING) WELDED TO 170x50x4mm HOLLOW SECTION HORIZONTAL RAILS BOLTED TO 3500x100x100 4mm HOLLOW SECTION UPRIGHTS WITH SEALED ENDS BOLTED TO STRIP FOUNDATION WITH 500x500mm STONE CLAD DWARF WALL OMIT DWARF WALL ON WEST BOUNDARY BUT RUN LINE OF STONES FLUSH WITH GROUND WITH UPRIGHTS 100mm ABOVE TOP FACE OF STONE

GATE PIERS TO BE 3500x500mm DIA STONE CLADDING WITH 45 DEGREE ANGLE TOP FACE ON HOLLOW CONC. BLOCK CORE WITH R-BAR AND CONCRETE FILL ON FOUNDATION PAD TO ENGINEER'S DETAIL GATES TO HAVE 100x50x4mm STEEL FRAME WITH VERTICAL FLATS AS PER RAILINGS, GATE THRESHOLD TO HAVE SAME RECESSED STONE DETAIL AS WEST BOUNDARY

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN / IRISH WATER

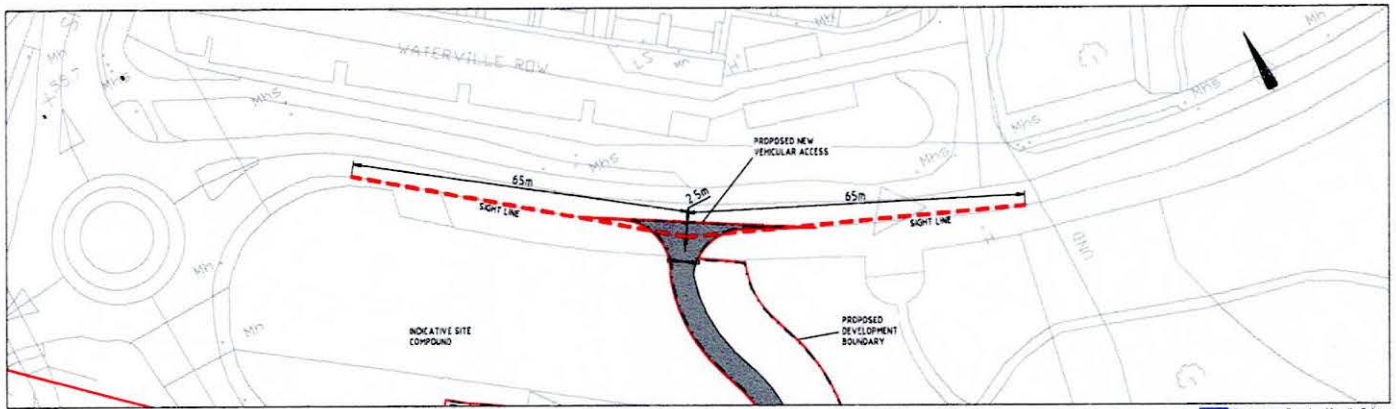
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
PROPOSED SITE LAYOUT INCLUDING LANDSCAPING

STATUS
PLANNING

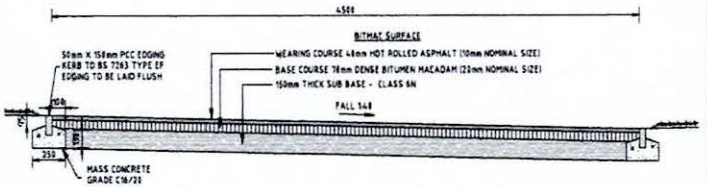
Date: 16/03/17	Scale: AS SHOWN	Drawn: MS	Chk: APMC	Appr: TS
Project No: W3036	Drg. No: W3036/3220			Rev: P1

A1



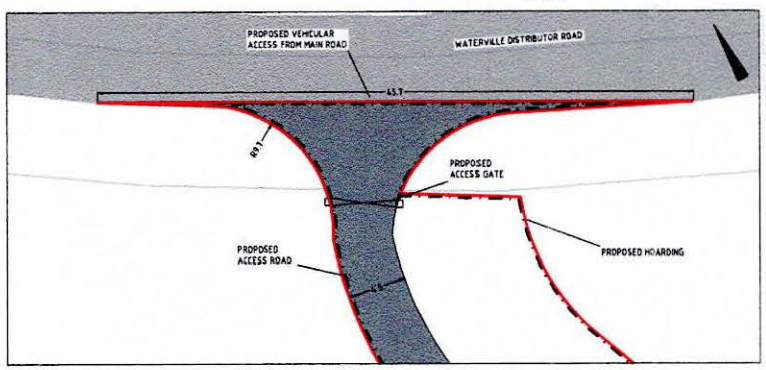
PROPOSED PERMANENT VEHICULAR ACCESS - SIGHT LINES

SCALE 1:200



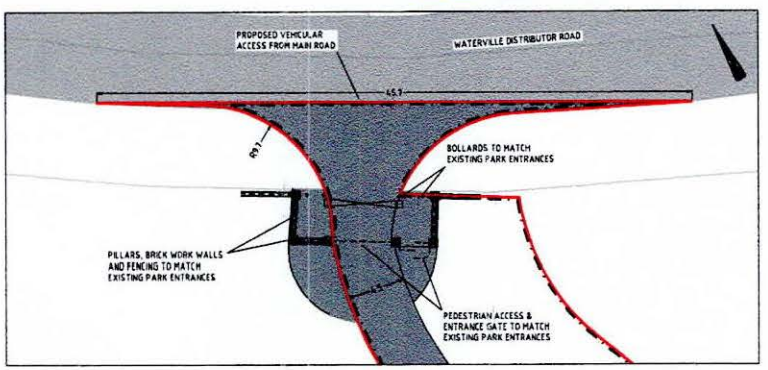
PROPOSED NEW ACCESS ROAD - CROSS SECTION

SCALE 1:20



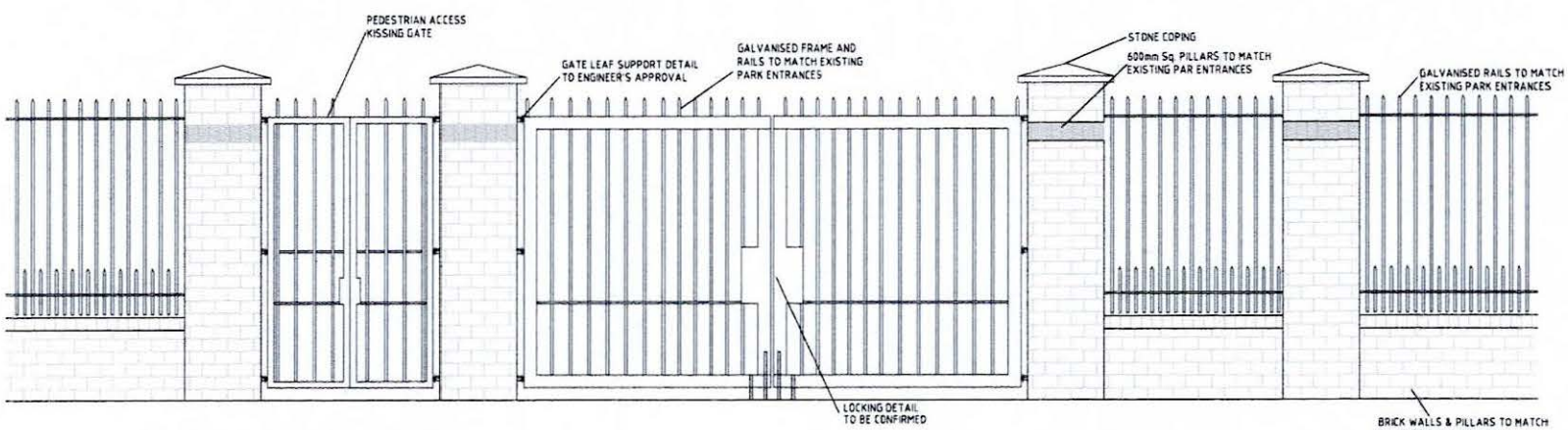
PROPOSED TEMPORARY VEHICULAR ACCESS - PLAN

SCALE 1:200



PROPOSED PERMANENT VEHICULAR ACCESS - PLAN

SCALE 1:200



PROPOSED PERMANENT VEHICULAR ACCESS - ELEVATION

SCALE 1:20

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN : IRISH WATER

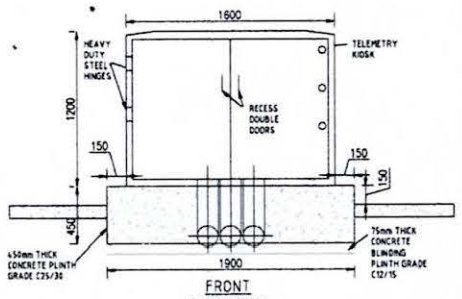
PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: MISCELLANEOUS DETAILS PROPOSED SITE ACCESS WATERVILLE DISTRIBUTOR ROAD

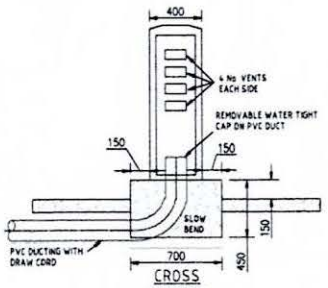
STATUS: PLANNING

Date:	Scale: AS SHOWN	Drawn: MS	Chk: AMC	App: IS
Project No: W3036	Drg. No: W3036/3301			Rev: P1

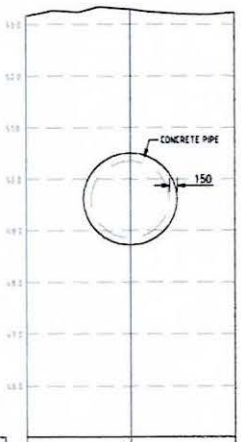
A1



FRONT ELEVATION
SCALE 1:20

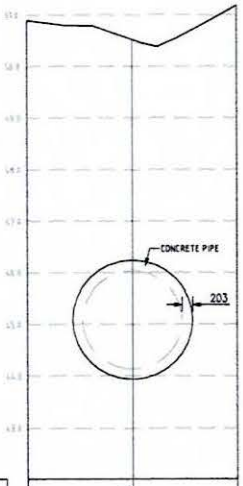


CROSS SECTION
SCALE 1:20



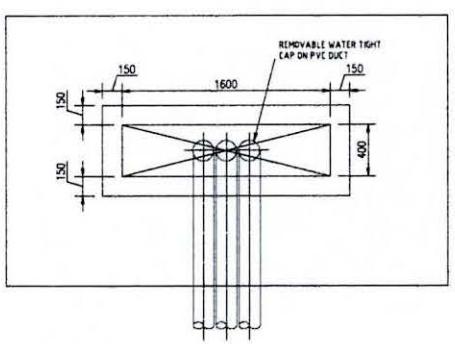
DATUM 45m O.D.	
GROUND LEVEL	53.796
INVERT LEVEL	48.952
CHAINAGE	450.00
PIPE TYPE & GRADE	(1500mm ø @ 1:500 GRADIENT)
LOCATION	GRASS

TYPICAL CROSS SECTION THROUGH PROPOSED SEWER DUPLICATION TAKEN @ CH. 450
SCALE 1:50

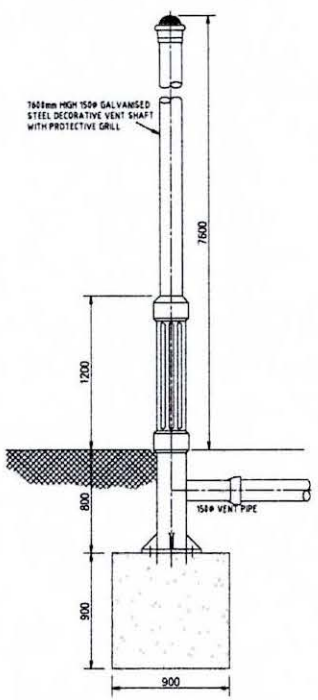


DATUM 42m O.D.	
GROUND LEVEL	54.514
INVERT LEVEL	44.135
CHAINAGE	1605.00
PIPE TYPE & GRADE	(1800mm ø @ 1:500 GRADIENT)
LOCATION	CASTLECURRAGH PARK

TYPICAL CROSS SECTION THROUGH PROPOSED SEWER DUPLICATION TAKEN @ CH. 1605
SCALE 1:50



PLAN TELEMETRY KIDSK
SCALE 1:20



ELEVATION VENT STACK
SCALE 1:20

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE
2. THE KIOSK SHALL BE LOCATED OFF THE FOOTPATH SO AS NOT TO IMPEDE PEDESTRIANS AND POSITIONED SO AS TO FACILITATE SAFE ACCESS FOR MAINTENANCE PERSONNEL
3. KIOSK TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE (MINIMUM 4mm THICKNESS) TO BS EN 1461. STAINLESS STEEL OR NON-METALLIC MATERIALS, SUCH AS GLASS REINFORCED PLASTIC (GRP), MAY BE USED AS AN ALTERNATIVE KIOSK MATERIAL, PARTICULARLY IN SEVERE ENVIRONMENTS, SUBJECT TO AGREEMENT WITH IRISH WATER
4. COLOUR TO BE HOLLY GREEN BS 4800 14 E39. INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY IRISH WATER
5. THE QUALITY OF KIOSK CONSTRUCTION SHALL ENSURE THAT THE FOLLOWING IS ACHIEVED:
   (a) A THERMAL TRANSMITTANCE OF 1.5W PER m^2K
   (b) A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES.
   (c) AN IP RATING OF IP65 OR EQUIVALENT.
6. KIOSK TO BE BOLTED TO THE PLINTH THROUGH A BOTTOM FLANGE WITH GALVANISED MILD STEEL OR STAINLESS STEEL ANCHOR BOLTS.
7. THE BOTTOM FLANGE SHALL BE SEATED ON A NEOPRENE GASKET AND SEALED WITH MASTIC.
8. REAR WALL SHALL BE REINFORCED WITH STAINLESS STEEL SECTIONS TO WHICH A MARINE PLY WOOD , 18mm THICK BOARD IS FIXED
9. THE INTERNAL LAYOUT OF THE KIOSK SHALL BE SUBJECT TO IRISH WATER APPROVAL.
10. TELEMETRY DUCTING TO BE IN ACCORDANCE WITH BS 4568 AND BS EN 1461.
11. ELECTRICAL REQUIREMENTS TO BE IN ACCORDANCE WITH ESB SPECIFICATION
12. THE ROOF OF THE KIOSK SHALL BE REMOVABLE (BOLTS) TO FACILITATE BACKBOARD REMOVAL.
13. ALL EXPOSED PIPEWORK TO BE ADEQUATELY INSULATED WITH PIPE LAGGING.
14. A 750mm WIDE x 100mm THICK FOOTPATH OF C25/30 CONCRETE ON 50mm SAND BLINDING ON 300mm CLAUSE 804 GRANULAR MATERIAL TO BE PROVIDED AROUND KIOSK.
15. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN : IRISH WATER

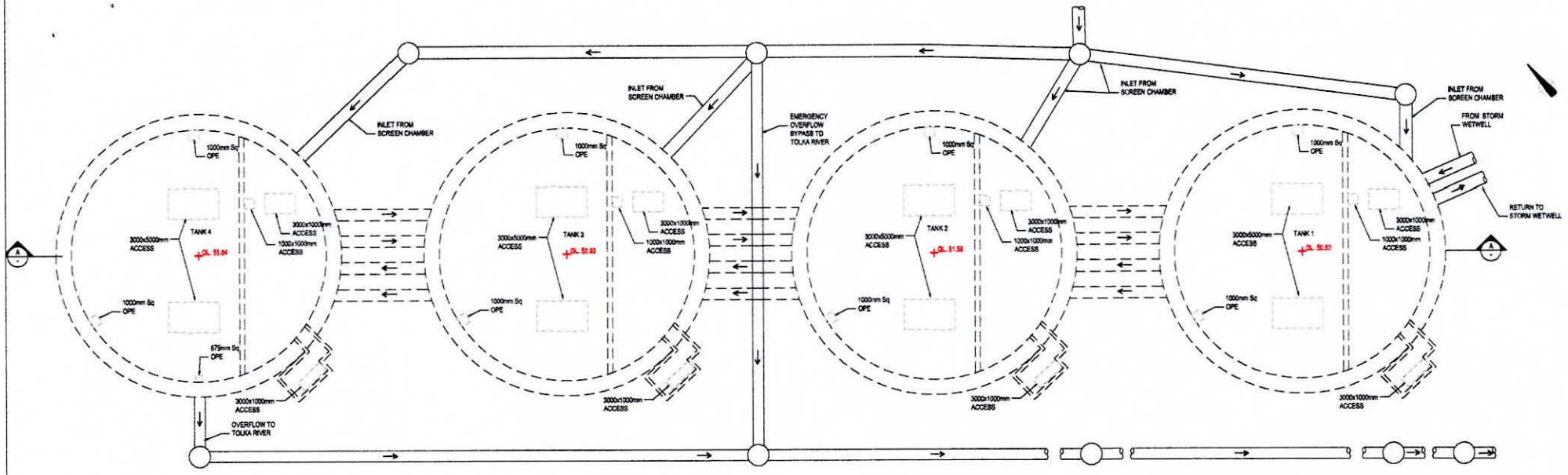
PROJECT:
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE:
MISCELLANEOUS DETAILS
PROPOSED TELEMETRY KIDSK, VENT STACK & PIPE CROSS SECTION - TYPICAL DETAILS

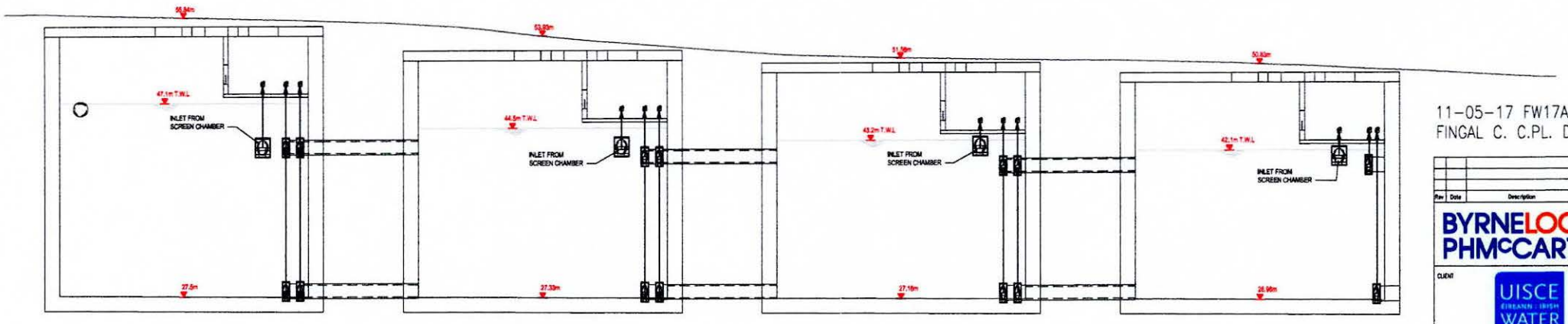
STATUS: PLANNING

Date: 14/03/17	Scale: AS SHOWN	Drawn: MS	Chk: AMC	Appr: ES
Project No: W3036	Drg. No: W3036/3302			Rev: P1

A1



LAYOUT PLAN
SCALE 1 : 200



SECTION A-A
SCALE 1 : 200

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHM CCARTHY

CLIENT: UISCE ÉIREANN : IRISH WATER

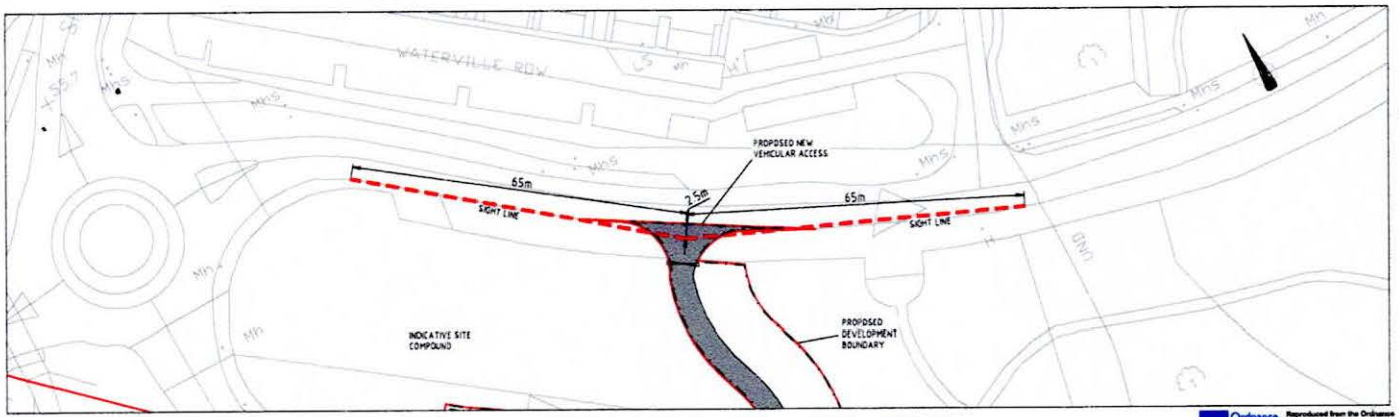
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
STORAGE TANKS
PLANS AND SECTIONS

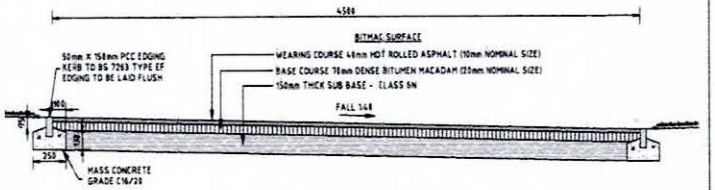
STATUS
PLANNING

Date: 16/03/17	Scale: AS SHOWN	Drawn: MS	Chk: AMC	App: ES
Project No: W3036	Org. No: W3036/3203			Rev: P1

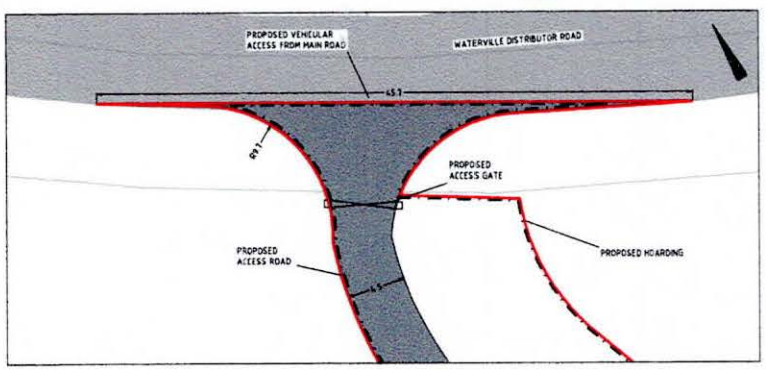
A1



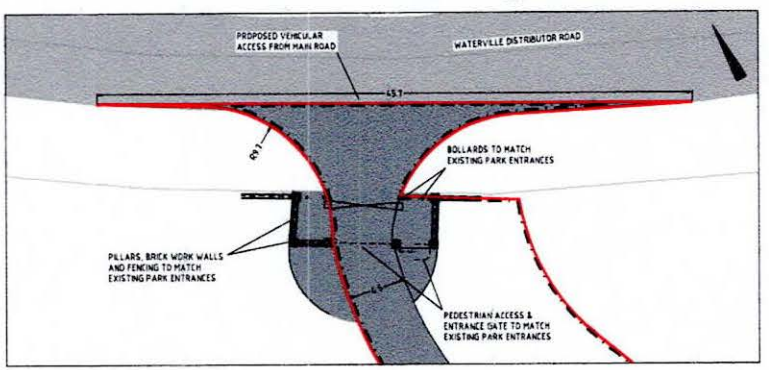
PROPOSED PERMANENT VEHICULAR ACCESS - SIGHT LINES
SCALE 1:200



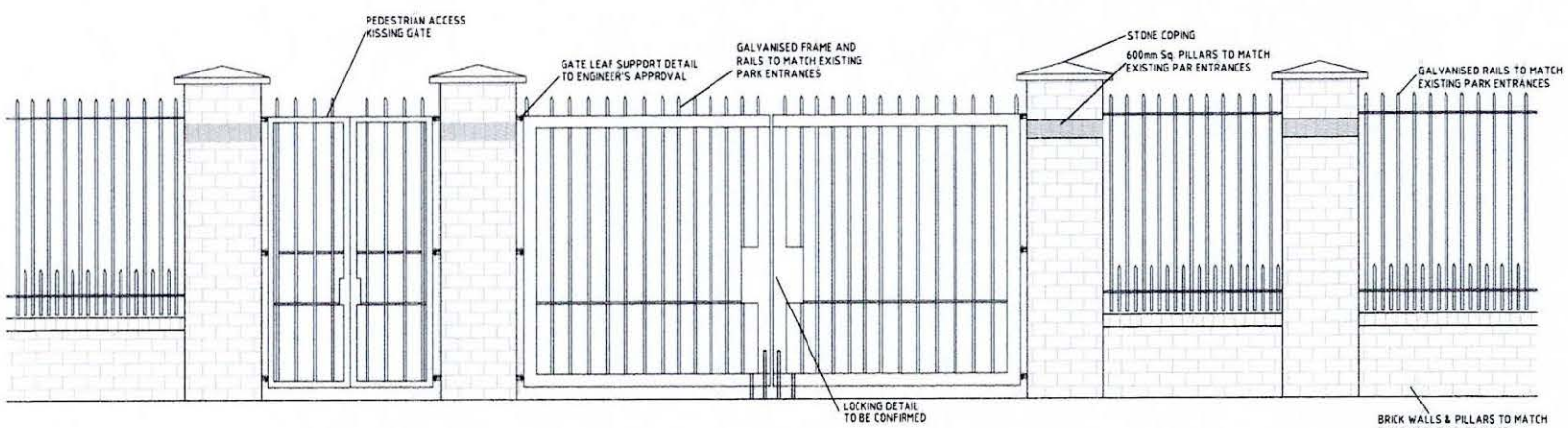
PROPOSED NEW ACCESS ROAD - CROSS SECTION
SCALE 1:20



PROPOSED TEMPORARY VEHICULAR ACCESS - PLAN
SCALE 1:200



PROPOSED PERMANENT VEHICULAR ACCESS - PLAN
SCALE 1:200



PROPOSED PERMANENT VEHICULAR ACCESS - ELEVATION
SCALE 1:20

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

CLIENT: UISCE ÉIREANN / IRISH WATER

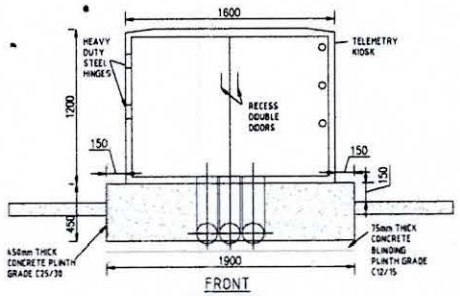
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
MISCELLANEOUS DETAILS
PROPOSED SITE ACCESS
WATERVILLE DISTRIBUTOR ROAD

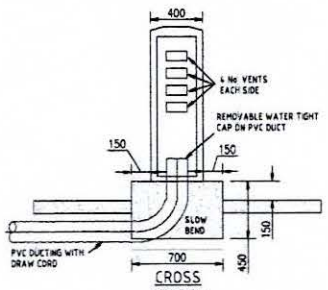
STATUS
PLANNING

Date: 16/03/17	Scale: AS SHOWN	Drawn: MB	Chk: AMC	App: ES
Project No: W3936	Drg. No: W3936/3301			Rev: P1

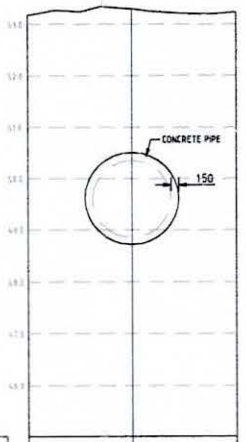
A1



FRONT ELEVATION
SCALE 1:20

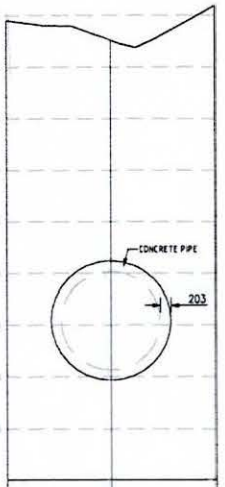


CROSS SECTION
SCALE 1:20



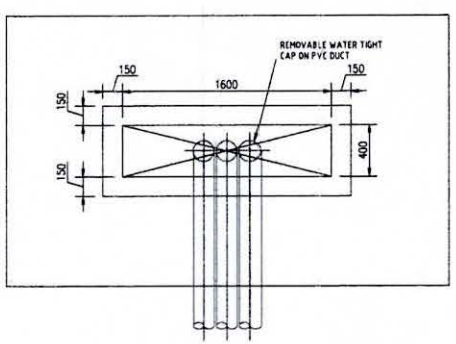
DATUM 45m O.D.	
GROUND LEVEL	53.396
INVERT LEVEL	48.852
CHAINAGE	459.00
PIPE TYPE & GRADE	(1500mm ø @ 1:500 GRADIENT)
LOCATION	GRASS

TYPICAL CROSS SECTION THROUGH PROPOSED SEWER DUPLICATION TAKEN @ CH. 450
SCALE 1:50

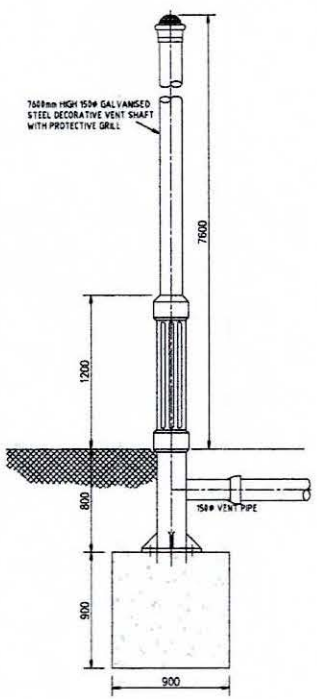


DATUM 42m O.D.	
GROUND LEVEL	54.574
INVERT LEVEL	44.135
CHAINAGE	1605.00
PIPE TYPE & GRADE	(1800mm ø @ 1:500 GRADIENT)
LOCATION	CASTLECURRAGH PARK

TYPICAL CROSS SECTION THROUGH PROPOSED SEWER DUPLICATION TAKEN @ CH. 1605
SCALE 1:50



PLAN TELEMETRY KIOSK
SCALE 1:20



ELEVATION VENT STACK
SCALE 1:20

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE
2. THE KIOSK SHALL BE LOCATED OFF THE FOOTPATH SO AS NOT TO IMPEDE PEDESTRIANS AND POSITIONED SO AS TO FACILITATE SAFE ACCESS FOR MAINTENANCE PERSONNEL
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   (b) A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES.
   (c) AN IP RATING OF IP55 OR EQUIVALENT
6. KIOSK TO BE BOLTED TO THE PLINTH THROUGH A BOTTOM FLANGE WITH GALVANISED MILD STEEL OR STAINLESS STEEL ANCHOR BOLTS.
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8. REAR WALL SHALL BE REINFORCED WITH STAINLESS STEEL SECTIONS TO WHICH A MARINE PLY WOOD , 18mm THICK BOARD IS FIXED
9. THE INTERNAL LAYOUT OF THE KIOSK SHALL BE SUBJECT TO IRISH WATER APPROVAL
10. TELEMETRY DUCTING TO BE IN ACCORDANCE WITH BS 4660 AND BS EN 1461
11. ELECTRICAL REQUIREMENTS TO BE IN ACCORDANCE WITH ESB SPECIFICATION
12. THE ROOF OF THE KIOSK SHALL BE REMOVABLE (BOLTS) TO FACILITATE BACKBOARD REMOVAL
13. ALL EXPOSED PIPEWORK TO BE ADEQUATELY INSULATED WITH PIPE LAGGING
14. A 750mm WIDE x 150mm THICK FOOTPATH OF C25/30 CONCRETE ON 50mm SAND BLINDING ON 300mm CLAUSE 804 GRANULAR MATERIAL TO BE PROVIDED AROUND KIOSK.
15. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMcCARTHY

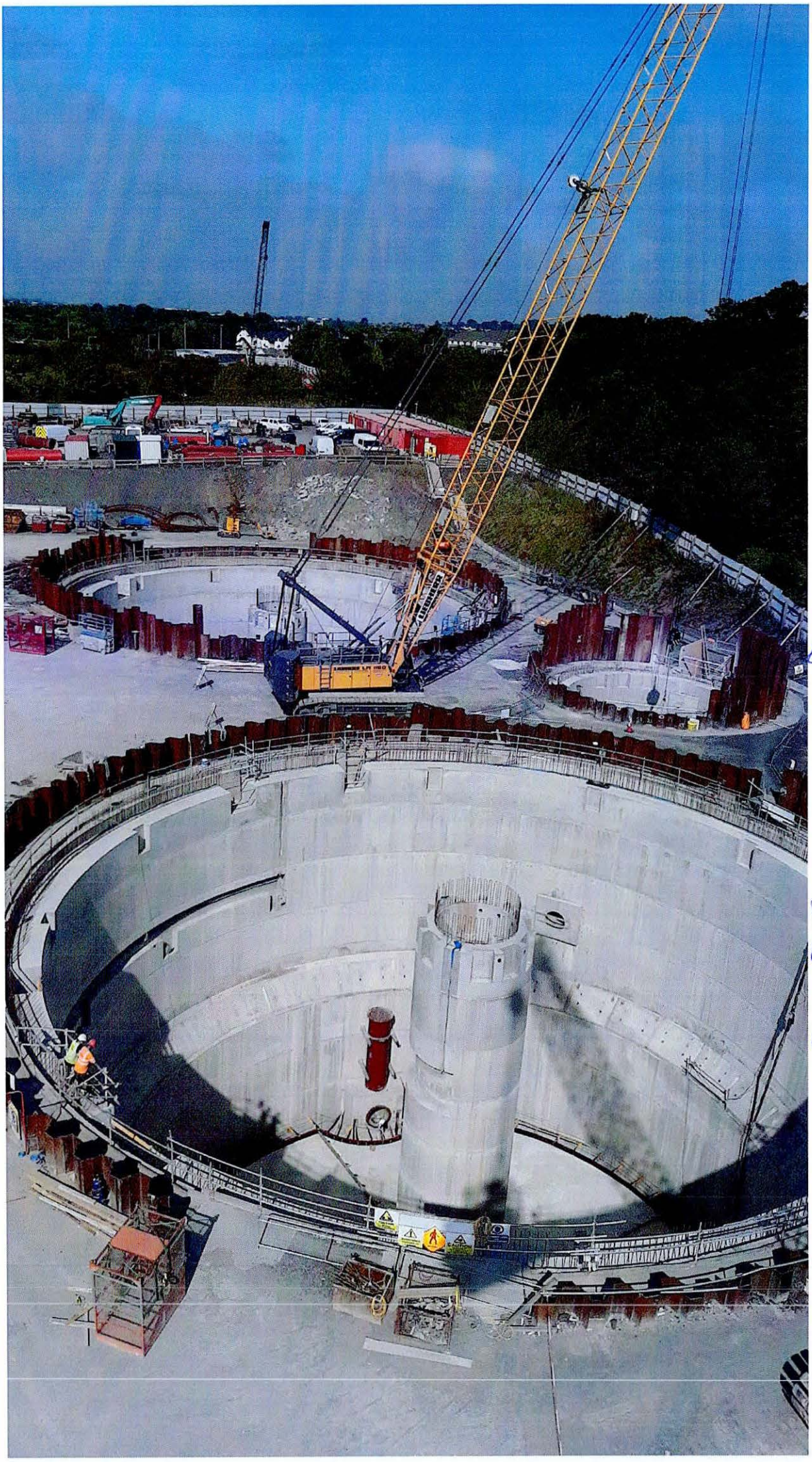
CLIENT: UISCE ÉIREANN IRISH WATER

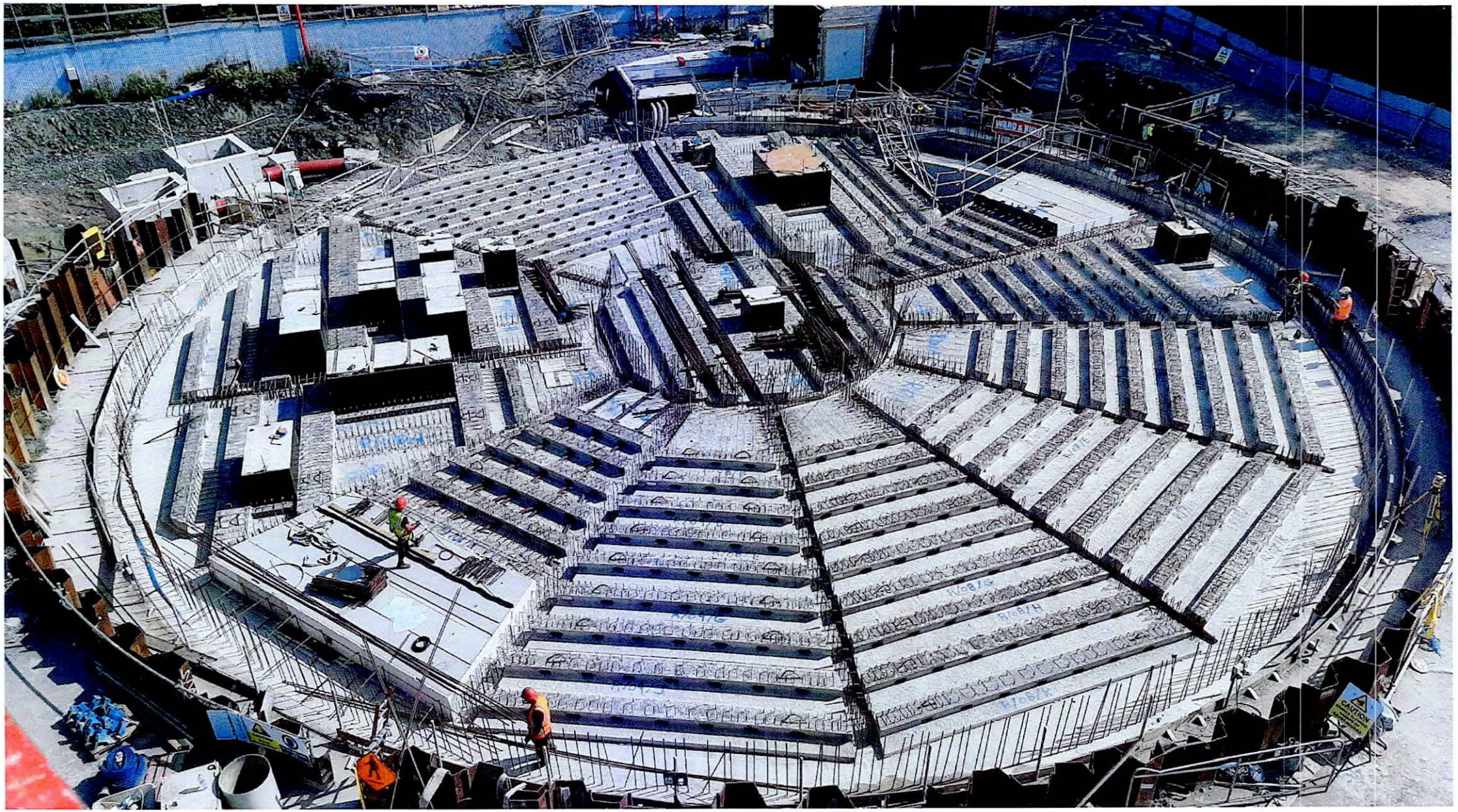
PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
MISCELLANEOUS DETAILS
PROPOSED TELEMETRY KIOSK, VENT STACK & PIPE CROSS SECTION - TYPICAL DETAILS

STATUS: PLANNING

Date: 19/05/17	Scale: AS SHOWN	Drawn: MS	Chk: AMC	App: ES
Project No: W3036	Drg. No: W3036/3302			Rev: P1


STORM TANK (1)
GDD
Foul Balancing Tanks



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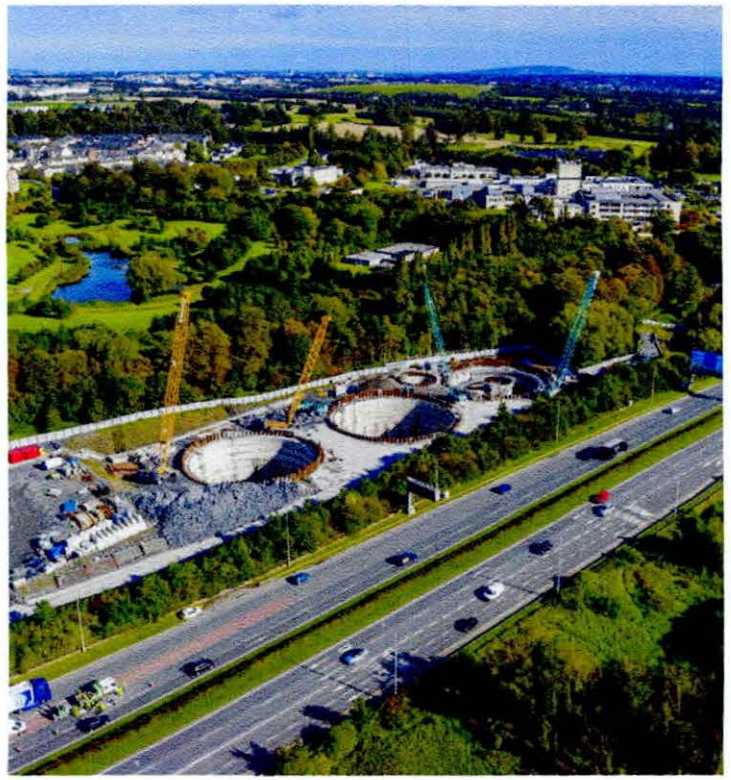
BACK TO YOUR SEARCH

Blanchardstown Regional Drainage Scheme



Irish Water are progressing the Blanchardstown Regional Drainage Scheme incorporating the Tolka Valley Park Pumping Station. The project represents a major capital investment and will involve the upgrade of the existing sewer network currently serving Blanchardstown and the surrounding catchment areas. This infrastructure will expand the capacity of the wastewater network and will facilitate existing and future residential and commercial development. It will also reduce the frequency and volume of

BYRNELOOBY
AN ayesa COMPANY

Our Role

The Water Division at ByrneLooby Headquarters in Dublin were appointed by Irish Water as Consulting Engineers and Designers for the Blanchardstown Regional Drainage Scheme project. Designing the deep underground storage tanks with a total capacity of approximately 30,000m^3, approximately 3.2km of large diameter pipeline and installing such using trenchless tunnelling techniques with the Tolka Valley Park Pumping Station. ByrneLooby prepared the Environmental Impact Statement (EIS) to accompany the planning application made by Irish Water. In July 2017 the project was granted planning permission by Fingal County Council and the project is expected to progress to construction by early 2019.

BYRNELOOBY
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Got a Question? **Drop Us a Message!**

BYRNELOOBY
AN ayesa COMPANY

Anti-Slavery & Human Trafficking Statement

Privacy

Sectors

Geoscience

Marine and Coastal

Water

Flooding

Energy

Buildings

Quick Links

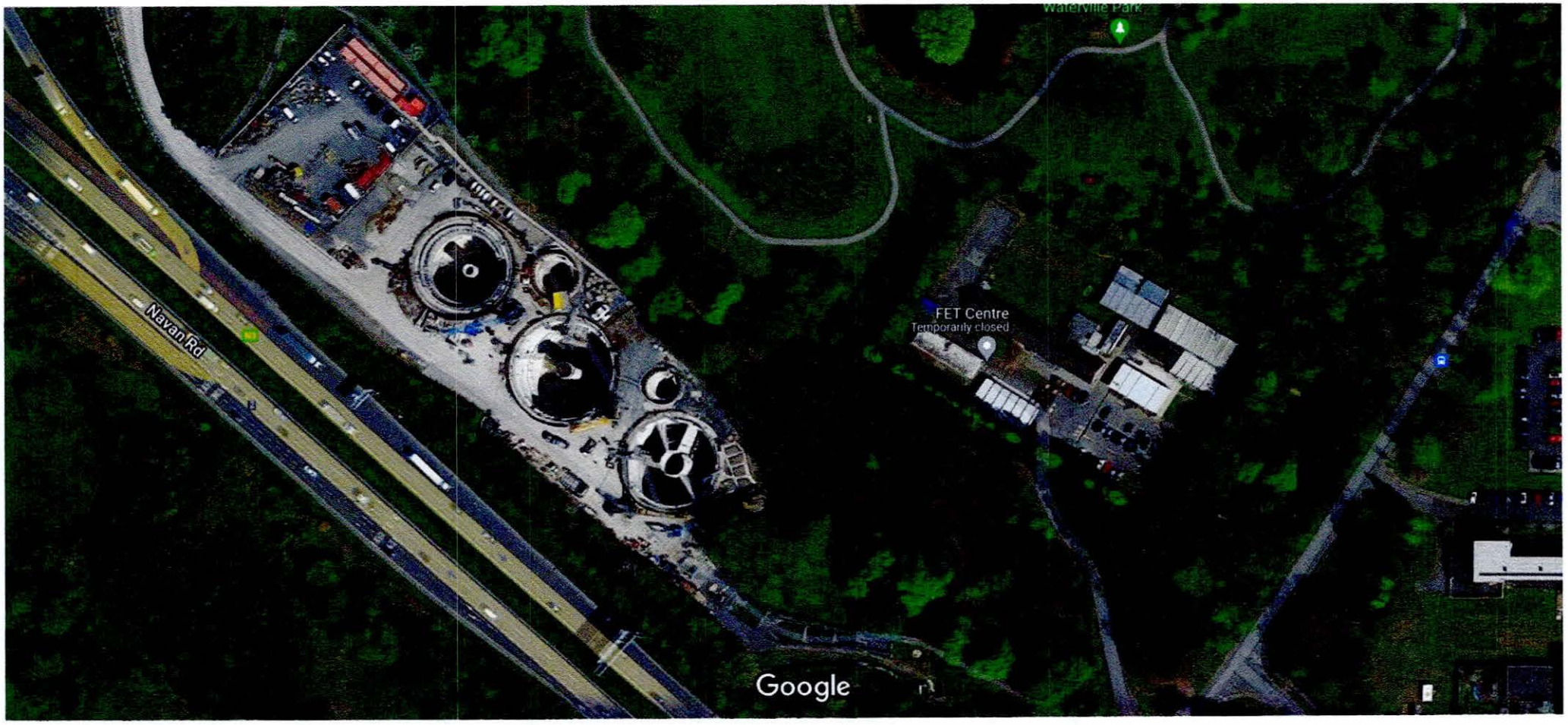
Our Projects

About Us

Our People

News

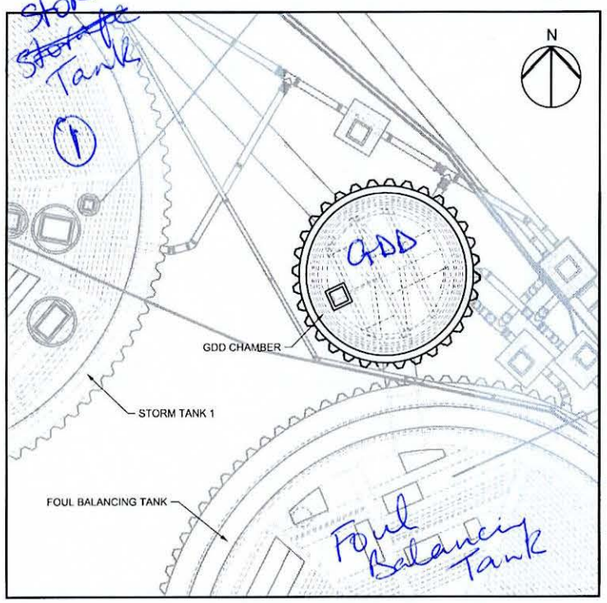
Google Maps BRDS including GDDP Reception Chamber not included in any planning consent



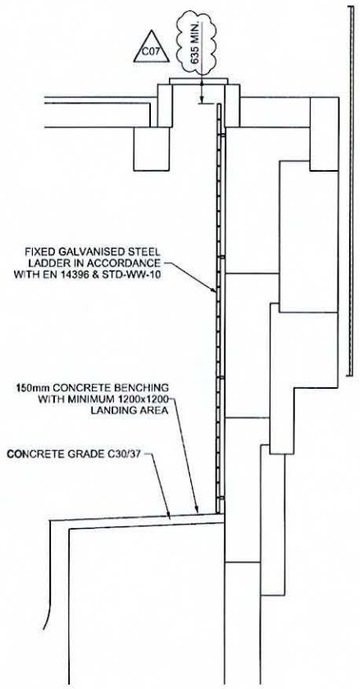
Imagery ©2022 Google, Imagery ©2022 Infoterra Ltd & Bluesky, Maxar Technologies, Map data ©2022 20 m

GDD Reception Chamber

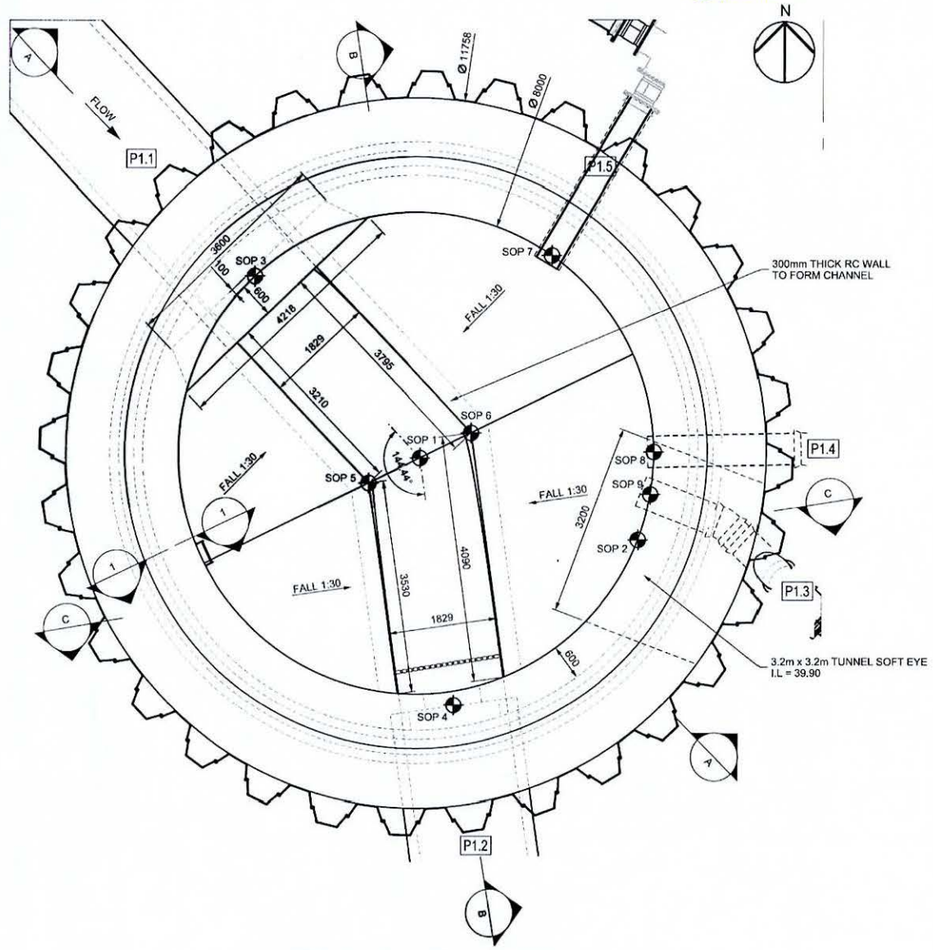
15/3/21



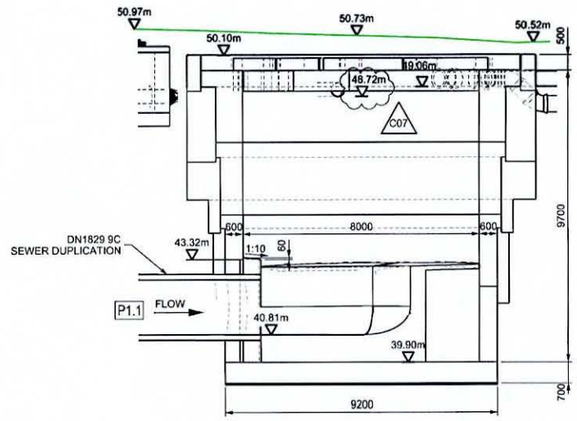
KEY PLAN
1:200



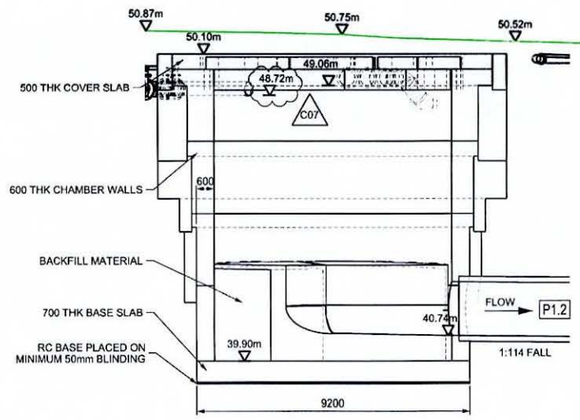
DETAIL 1-1
1:50



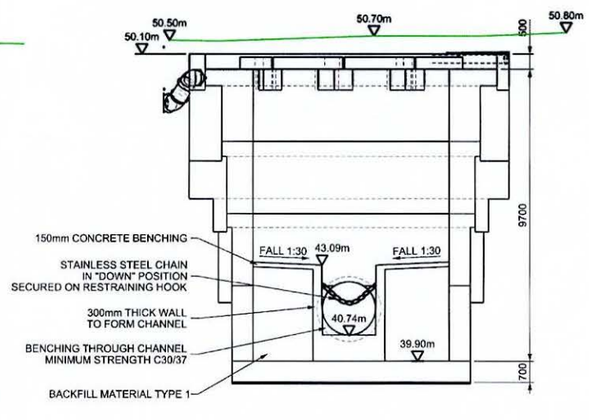
INTERNAL PLAN VIEW
1:50



SECTION A-A
1:100



SECTION B-B
1:100



SECTION C-C
1:100

NOTE: SHEET PILING REMOVED FROM SECTIONS FOR CLARITY

BOX OUT SCHEDULE		
REFERENCE	PIPE SIZE	BOX OUT SIZE
1.1*	1800 ID	3.6m x 3.6m
1.2	1800 ID	N/A
1.3	500 ID	1.6m x 0.8m
1.4	500 ID	Combined Box
1.5	450 ID	0.8m x 0.8m

* NOT BOX OUT THROUGH WALL - SOFT EYE FOR SEAL

BIM QUALITY SHEET No. : SMPQS-WBC-ZZ-XX-QS-Z-1001

NOTES

14/2/20

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS IN METERS UNLESS NOTED OTHERWISE.
2. ANY QUERIES OR DISCREPANCIES TO BE REFEREED TO ENGINEER IMMEDIATELY.
3. DO NOT SCALE FROM DRAWING.
5. 3.2m x 3.2m SOFT EYE CONNECTION TO BE PROVIDED FOR FUTURE CONNECTION.
6. MAX HORIZONTAL LOAD ON SHAFT FROM CRANE MUST NOT BE GREATER THAN 290kN/m².

GDD - SETTING OUT POINTS		
LOCATION	Coordinates	
	Easting	Northing
SOP1	708102.5145	738928.3445
SOP2	708106.2560	**738926.9310**
SOP3	708099.8099	**738931.2915**
SOP4	708103.1583	**738924.1518**
SOP5	708101.4352	**738927.7178**
SOP6	708103.7350	**738928.8204**
SOP7	708104.7906	**738931.6338**
SOP8	708106.5144	**738928.3715**
SOP9	708106.4559	**738927.6619**

Health, Safety and Environmental Information

Notes below are additional to hazards normally associated with this type of work

Construction:

i. Pressure relief placed in base if excess water at base.
ii. Working at height during construction.
iii. Working in excavation/confined space.
iv. Excessive noise during construction.

Maintenance and operation:

Decommissioning/demolition:

i. Backfill tank

Those notes are based on the use of experienced and competent contractors carrying out the work using an approved safe method of working.

0 1 2 3 4 5m
Scale 1:50 at A1

0 2 4 6 8 10m
Scale 1:100 at A1

0 4 8 12 16 20m
Scale 1:200 at A1

STATUS	REV	DATE	DESCRIPTION	IA	CHKD	APP
A	C07	15/03/21	REVISED AS PER LATEST DESIGN	NP	RR	LM
A	C06	03/02/21	REVISED AS PER LATEST DESIGN	NP	RR	LM
A	C05	08/01/21	REVISED AS PER LATEST DESIGN	NP	RR	LM
A	C04	07/12/20	UPDATED AS PER LATEST DESIGN	NP	RR	LM
A	C03	27/10/20	UPDATED AS PER LATEST DESIGN	NP	RR	LM
A	C02	03/08/20	UPDATED AS PER LATEST DESIGN	NP	RR	LM
A	C01	14/02/20	FOR CONSTRUCTION	NP	RR	LM

△ REVISIONS

UISCE ÉIREANN : IRISH WATER

WARD & BURKE

TOBIN Consulting Engineers (UK) Ltd.

CONTRACT NUMBER: C640

PROJECT CODE: BLANCH

PROJECT TITLE: BLANCHARDSTOWN SS DBO

CLIENT: IRISH WATER

SITE LOCATION ID: GENERAL ARRANGEMENT DRAWING

DRAWING TITLE: CIVIL
FUTURE GDD RECEPTION CHAMBER
GA DRAWING

SHEET SIZE: A1

W&B DRAWING No: BLANCH-WBC-01-00-DR-W-10601

REV: C07

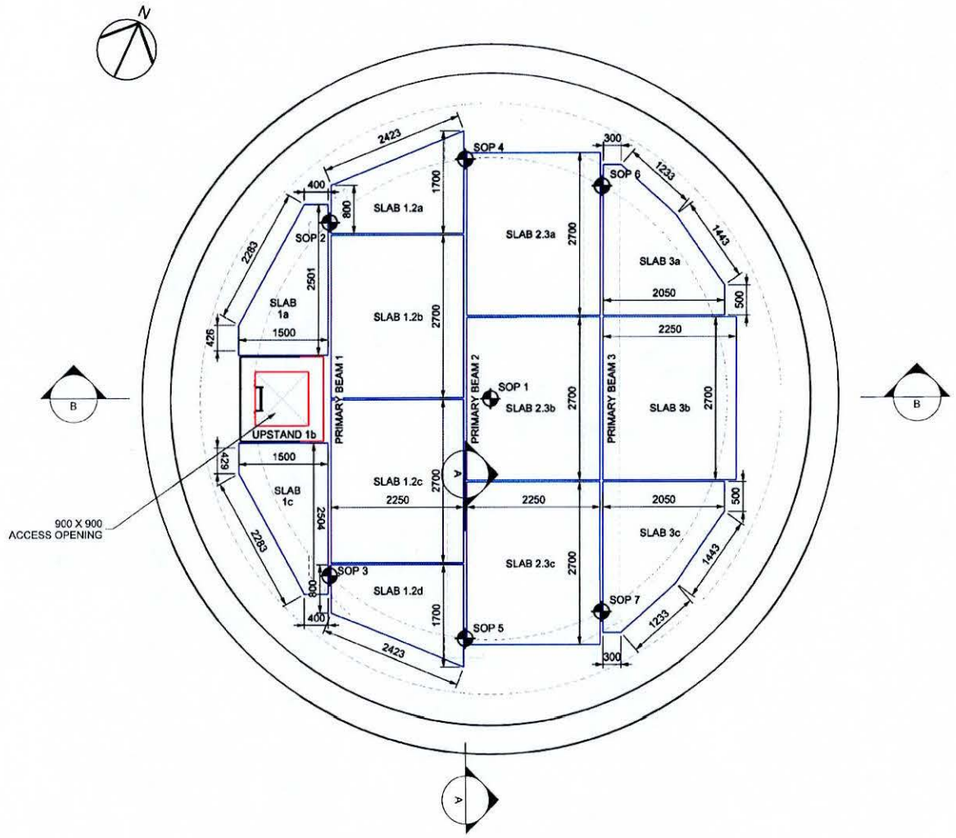
CLIENT DRAWING No: -

SCALE: AS SHOWN @ A1

CAD FILE: BLANCH-WBC-01-00-M3-W-106

A=Issue For Construction

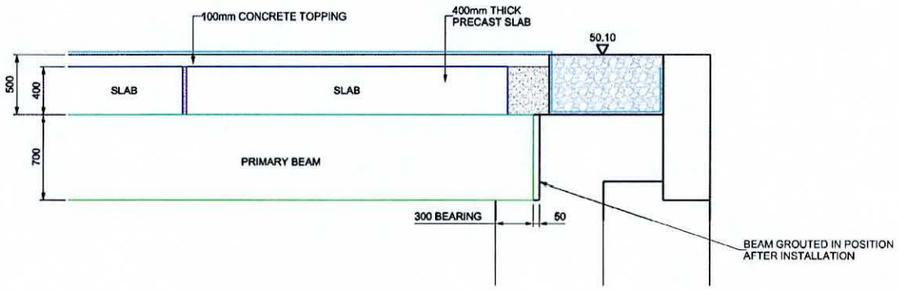
Future GDD Roof GA



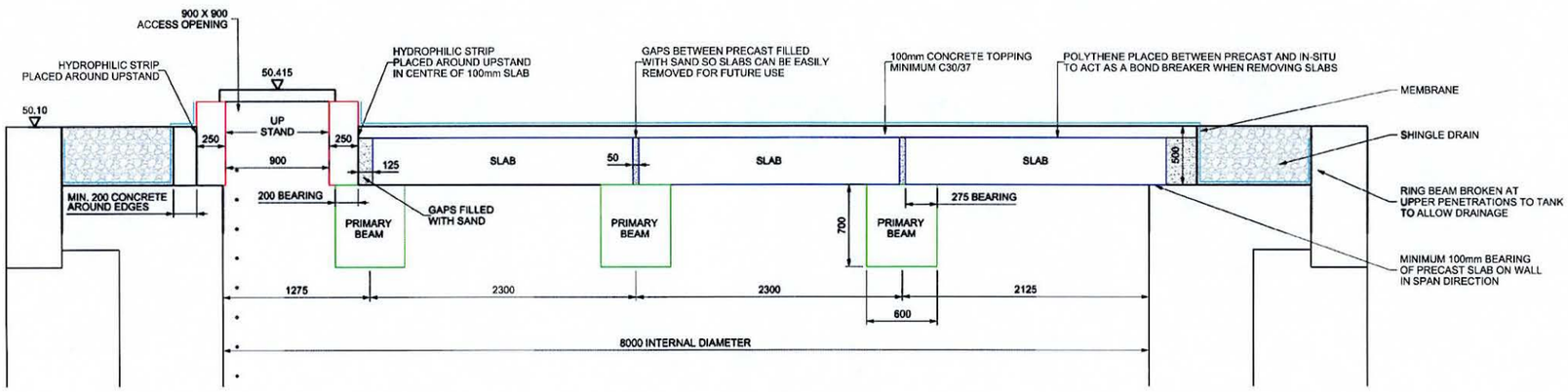
PLAN VIEW - CHAMBER ROOF @ 50.00
1:50

BEAM SCHEDULE		
BEAM TYPE	LENGTH	Nr.
PRIMARY BEAMS	8.60m - 6.92 LONG - 300mm BEARING EACH SIDE	3
PRECAST SLABS	PRECAST AROUND OPENINGS	12
PRECAST UPSTAND	AROUND ACCESS OPENING	1

GDD - SETTING OUT POINTS		
LOCATION	Coordinates	
	Easting	Northing
SOP1	708102.5145	738928.3445
SOP2	708098.8073	738929.8467
SOP3	708101.2824	738924.5390
SOP4	708100.4484	738931.7696
SOP5	708103.8103	738924.5602
SOP6	708102.7206	738932.3392
SOP7	708105.7071	738925.9346



SECTION A-A
1:25



SECTION B-B
1:25

BIM QUALITY SHEET No. : SMPQS-WBC-ZZ-XX-QS-Z-1001

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS IN METERS UNLESS NOTED OTHERWISE.
2. ANY QUERIES OR DISCREPANCIES TO BE REFEREED TO ENGINEER IMMEDIATELY.
3. DO NOT SCALE FROM DRAWING.
4. FIGURED DIMENSIONS ONLY TO BE READ.
5. 100mm CONCRETE TOPPING TO BE REMOVED AND PRECAST SLABS CAN BE LIFTED OFF TO ACCESS CHAMBER

Health, Safety and Environmental Information

Notes below are additional to hazards/risk normally associated with this type of work

Construction:

i. All concrete members to be placed on mortar bed.

Maintenance and Operation:

i. Roof designed to take Cat G loading in accordance with IS EN 1991-1-1-1:2002.
ii. Backfill soil on roof must not be higher than shown in BLANCH-WBC-01-00-DR-W-70005
iii. An additional soil loading of 250mm over entire tank has been allowed for as an accidental load case.

Decommissioning/demolition:

i.

Those notes are based on the use of experienced and competent contractors carrying out the work using an approved safe method of working.

0 1 2 3 4 5m
Scale 1:50 at A1

3/2/21 For Construction

STATUS	REV	DATE	DESCRIPTION	IA	CHKD	APP
A	C01	03/02/21	FOR CONSTRUCTION	NP	RR	LM

△ REVISIONS

UISCE ÉIREANN : IRISH WATER

WARD & BURKE | TOBIN Consulting Engineers (UK) Ltd.

CONTRACT NUMBER: C640
PROJECT CODE: BLANCH
PROJECT TITLE: BLANCHARDSTOWN SS DBO
CLIENT: IRISH WATER
SITE LOCATION ID:
DRAWING TITLE: GENERAL ARRANGEMENT DRAWING
CIVIL
FUTURE GDD ROOF GA

SHEET SIZE	W&B DRAWING No:	REV:
A1	BLANCH-WBC-01-00-DR-W-10602	C01
	CLIENT DRAWING No: -	SCALE: AS SHOWN @ A1
	CAD FILE: BLANCH-WBC-01-00-M3-W-106	

A=Issue For Construction