



Enviroguide
CONSULTING

FLOOD RISK ASSESSMENT REPORT

FOR

PROPOSED WAREHOUSE DEVELOPMENT

AT

KINGSWOOD ROAD, CITYWEST BUSINESS CAMPUS,

DUBLIN 24

October 2022

ON BEHALF OF

ROCKFACE DEVELOPMENTS LTD.

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1 INTRODUCTION

Enviroguide Consulting (hereafter referred to as EGC) was commissioned by Rockface Developments Ltd. (hereafter referred to as the Client) to undertake a Flood Risk Assessment (FRA) for the Proposed Warehouse Development at Kingswood Road, Citywest Business Campus, Dublin 24 (referred to hereafter as the Site).

This report presents the findings of the FRA for the Site.

1.1 Project Objective

The project objective was to determine if there is any potential flood risk associated with the Site and proposed development and identify where appropriate any additional assessment and mitigation measures that would be required.

1.2 Project Scope

The FRA involved a Stage 1 and Stage 2 assessment in accordance with the approach and methodology set out in the Department of Environment, Heritage and Local Government (DEHLG) guidance: 'The Planning System and Flood Risk Management. Guidelines for Planning Authorities' (DEHLG, 2009).

The methodology and scope of work undertaken is outlined in Section 2 and the results and recommendations presented in the following sections of the report.

2 METHODOLOGY

2.1 Relevant Guidance

Relevant best practice guidance (Department of Environment, Heritage and Local Government (DEHLG), November 2009. The Planning System and Flood Risk Management Guidelines for Planning Authorities) sets out a risk based sequential approach to flood risk assessment. The three key stages are identified as follows:

- **Stage 1 - Flood Risk Identification** - To identify whether there may be any flooding or surface water management issues related to a plan area or proposed development site that may warrant further investigation;
- **Stage 2 - Initial Flood Risk Assessment** - To confirm sources of flooding that may affect a plan area or proposed development site to appraise the adequacy of existing information and to determine what surveys and modelling approach is appropriate to match the spatial resolution required and complexity of the flood risk issues. The extent of the risk of flooding should be assessed. Where existing river or coastal models exist, these should be broadly used to assess the extent of the risk of flooding, and the potential impact of the proposed development on flooding elsewhere and of the scope of possible mitigation measures; and
- **Stage 3 - Detailed Flood Risk Assessment** - To assess flood risk issues in sufficient detail and to provide a quantitative appraisal of potential flood risk to a proposed area or existing development, of its potential impact on flood risk elsewhere and of the effectiveness of any proposed mitigation measures. This will typically involve the use of an existing or construction of a hydraulic model of the river or coastal cell across a wide enough area to appreciate the catchment wide impacts and hydrological processes involved.

2.1.1 Flood Zones

The objective of an FRA is to assess all types of flood risk to a development. The assessment should investigate potential sources of flood risk and include for the effects of climate change. The assessment is required to examine the impact of the development and the effectiveness of flood mitigation and management procedures proposed. It should also present the residual risks that remain after those measures are put in place.

This approach is based on the identification of flood zones for river and coastal flooding. According to best practice guidance (DEHLG, November 2009) flood zones are geographical areas within which the likelihood of flooding is in a particular range, and they are a key tool in flood risk management within the planning process. There are three types / levels of flood zones defined for the purposes of these guidelines, as presented in Table 2-1.

Table 2-1. Flood Zone Definitions

Flood Zone Definitions
Flood Zone A – where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding).
Flood Zone B – where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 100 and 0.5% or 1 in 200 for coastal flooding).
Flood Zone C – where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding Flood Zone C covers all areas of the plan which are not in zones A or B.
<small>*Source - Extract from DEHLG, November 2009. The Planning System and Flood Risk Management Guidelines for Planning Authorities</small>

2.1.2 Justification Test

Once a flood zone has been identified, the guidelines set out the different types of development appropriate to each zone to determine whether the development is considered appropriate or whether a Justification Test is required (refer to Table 2-2).

The Justification Test is used to assess the appropriateness of developments in flood risk areas. The test is comprised of two processes. The first is the Plan-making Justification Test and is used at the plan preparation and adoption stage where it is intended to zone or otherwise designate land which is at moderate or high risk of flooding. The second is the Development Management Justification Test and is used at the planning application stage where it is intended to develop land at moderate or high risk of flooding for uses or development vulnerable to flooding that would generally be inappropriate for that land.

Table 2-2. Matrix of Vulnerability and Flood Zone to Illustrate Appropriate Development and that Required to Meet the Justification Test

Vulnerability Class	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate
<small>*Source - Extract from DEHLG, November 2009. The Planning System and Flood Risk Management Guidelines for Planning Authorities</small>			

2.2 Scope of Assessment

This FRA has been carried out in accordance with relevant best practice guidance (DEHLG, November 2009) and comprised the completion of the following key stages, using the phased approach:

- Stage 1 - Flood Risk Identification; and

- Stage 2 - Initial Flood Risk Assessment

The scope of works undertaken comprised of a desk-based study including review of published information for the Site, design information for the proposed development provided by the Client and a site walkover inspection and survey.

2.2.1 Site Walkover

A site walkover inspection and survey was undertaken by EGC on the 19th January 2022 to identify and assess the Site setting and receiving water bodies and assess any potential constraints in relation to Flood Risk Assessment.

2.2.2 Desk- Based Studies

This task involved undertaking a detailed review of all available desk-based information in relation to historic flooding and potential future flood risk including the following published information:

- Geological Survey of Ireland Online mapping (GSI, 2022);
- Environmental Protection Agency Online mapping (EPA, 2022);
- Office of Public Works website and Online mapping (OPW, 2022);
- Office of Public Works, 2017. Eastern Catchment Flood Risk & Management Study.
- Office of Public Works and RPS Group Plc., June 2010. The Irish Coastal Protection Strategy Study - Phase II – South East Coast (ICPSS, 2010);
- Office of Public Works, March 2012. The National Preliminary Flood Risk Assessment (PFRA, 2012)
- Office of Public Works and RPS Group Plc., October 2020. Irish Coastal Wave and Water Level Modelling Study 2018. Phase 1 – Extreme Water Levels (ICWWS, 2020);
- Office of Public Works, June 2021. National Coastal Flood Hazard Mapping (NCFHM, 2021);
- Office of Public Works, October 2020. National Indicative Fluvial Mapping Project: Final Report (NIFM, 2020); and
- South Dublin County Council, January 2016. South Dublin County Council Development Plan 2016-2022 (SDCC, 2016-2022);
- South Dublin County Council, June 2022. South Dublin County Council Development Plan 2022-2028 (SDCC, 2022-2028);

The following relevant reports and drawings in relation to the design of the Proposed Development Site were also reviewed:

- Kavanagh Burke Consulting Engineers, October 2022. Drainage Design Report (Job No. D1736); and
- Kavanagh Burke Consulting Engineers, October 2022. Drainage and Watermain Layout (Drawing No. D3).
- Kavanagh Burke Consulting Engineers, October 2022. SUDS and Drainage Details (Drawing No. D4).

All available information from the desk-based studies have been evaluated and the findings are presented in this report.

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Client intends to apply for permission for development at this approximately 2.62 hectare (Ha) Site at Kingswood Road and Kingswood Avenue, Citywest Business Campus, Dublin 24. The lands are bounded to the southeast by Kingswood Avenue, to the south-west by an ancillary car park associated with Citywest Business Campus, to the northwest by Kingswood Business Centre and Ardsolus Residential Development and to the northeast by Kingswood Road.

The Proposed Development will comprise the provision of a warehouse with ancillary office and staff facilities and associated development. The warehouse will have a maximum height of 18m with a gross floor area of 11,691m² including a warehouse area (10,604m²), ancillary staff facilities (499m²) and ancillary office area (588m²).

The Proposed Development will also include: a vehicular and pedestrian entrance to the site from Kingswood Road, a separate HGV entrance from Kingswood Avenue; 64No. ancillary car parking spaces; covered bicycle parking; HGV parking and yards; level access goods doors; dock levellers; access gates; hard and soft landscaping; canopy; lighting; boundary treatments; ESB substation; plant; and all associated site development works above and below ground.

Acoustic screening, which will include a 2m high berm, with a top of bank elevation of 100mOD, and a 3m high acoustic screen barrier, will be constructed along the southwest boundary and a portion the northwest boundary of the Site.

The provision of surface water drainage, foul and watermains connections for the development are described in Sections 3.1, 3.2 and 3.3.

3.1 Surface Water Drainage

The proposed surface water drainage for the Proposed Development is specified in the 'Drainage Design Report' (Kavanagh Burke Consulting Engineers, October 2022) and where appropriate incorporates the requirements of the Greater Dublin Strategic Drainage Strategy (GSDS) and Sustainable Drainage Systems (SuDS) principals.

Surface water runoff collected onsite will be discharged, via appropriate treatment and attenuation to the Baldonnell Upper River (River Waterbody Code: IE_EA_09C020250) located approximately 0.02km southwest of the Proposed Development Site.

Surface water drainage design includes treatment and the appropriate attenuation of surface water runoff prior to discharge through the use of appropriate measures as follows:

- Sub-Catchment 1:
 - Surface water runoff from $\frac{3}{4}$ of the warehouse roof and any overflow runoff from the paved and landscaped surfaces located to the north of the warehouse will be attenuated in the proposed detention basin with a top of bank elevation of 98.225mOD;
 - The detention basin is designed for a 1 in 100year storm event (+20% allowance for climate change).
 - Water quantity control will be provided downstream of the detention basin via a site-specific vortex flow control device to limit the discharge to the green field runoff rate;

- Surface water from Sub-Catchment 1 will be treated via a series of permeable paving and silt traps to remove potential suspended solids; and
- The use of non-return valves is incorporated to prevent any surcharging of the proposed detention basin.
- Sub-Catchment 2 and 3:
 - Surface water runoff from ¼ of the warehouse roof, the green roof area of the office block and the remaining impermeable areas of the Site including concrete yard and docking area, carparking bays, footpaths and access roads will be attenuated in the underground attenuation storage tank system (e.g., Stormtech or similar approved) below the concrete yard that will have a minimum ground level of 97.30mOD;
 - The attenuation storage tank system is designed for a 1 in 100year storm event (+20% allowance for climate change).
 - Water quantity control will be provided downstream of the attenuation facility via two (2No.) site-specific vortex flow control devices at the outlet to each sub-catchment to limit the discharge to the green field runoff rates.
 - Surface water from Sub-Catchment 2 and 3 will be treated via a series of permeable paving, silt traps and Class 1 by-pass petrol interceptors (or similar approved) to remove potential suspended solids and any hydrocarbons entrained in surface water
 - The manhole chamber for the attenuation tank and Class I By-pass Separator will have a minimum cover level of 97.975mOD and include standard measures such as sealed manhole chambers to prevent the infiltration of surface water runoff infiltrating the Class I By-pass Separator.
 - The use of non-return valves is also incorporated to prevent any surcharging of the onsite drainage system including the interceptor, attenuation facility.

The surface water drainage layout for the Proposed Development is presented in Figure 3-1 (also refer to Appendix A).

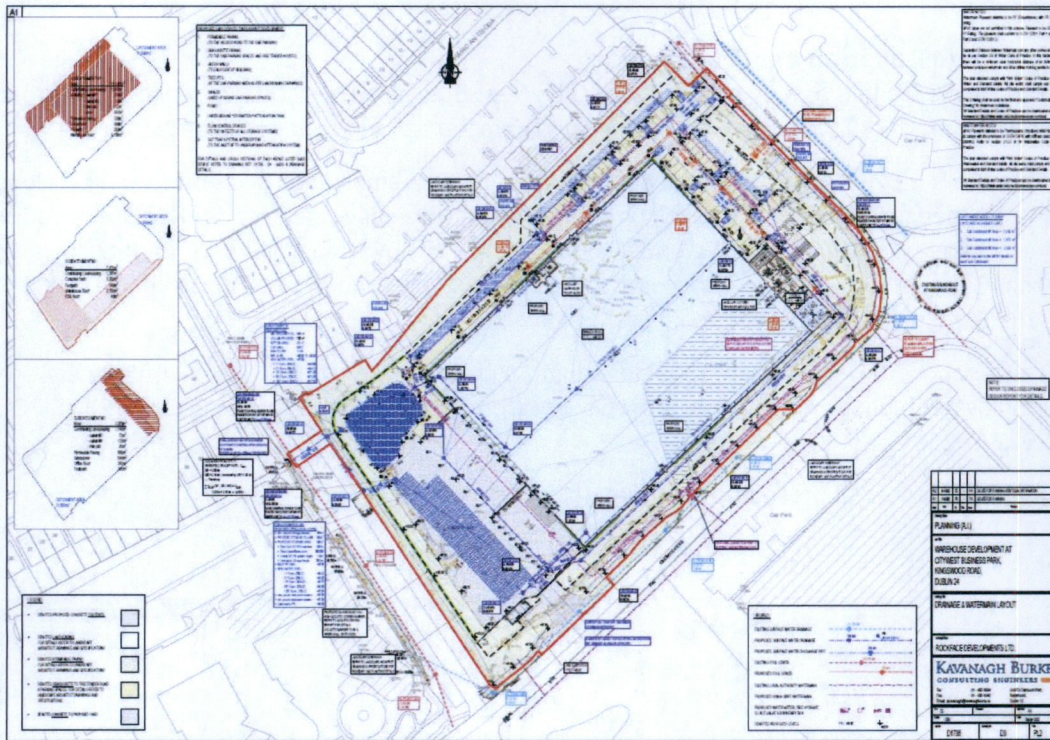
3.2 Foul Water

The Drainage Design Report (Kavanagh Burke Consulting Engineers, October 2022) identifies that foul water from the Site will be discharged to the existing Irish Water (IW) foul sewer network to the northeast of the Site along Kingswood Road (refer to Figure 3-1) subject to agreement with IW.

3.3 Water Supply

The Drainage Design Report (Kavanagh Burke Consulting Engineers, October 2022) identifies that water supply to the Proposed Development will be provided from a connection to the existing IW mains supply to the southeast of the Site along Kingswood Avenue (refer to Figure 3-1) subject to agreement with IW.

Figure 3-1. Surface Water Drainage (Kavanagh Burke Consulting Engineers, October 2022)



4 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

4.1 Site Location and Description

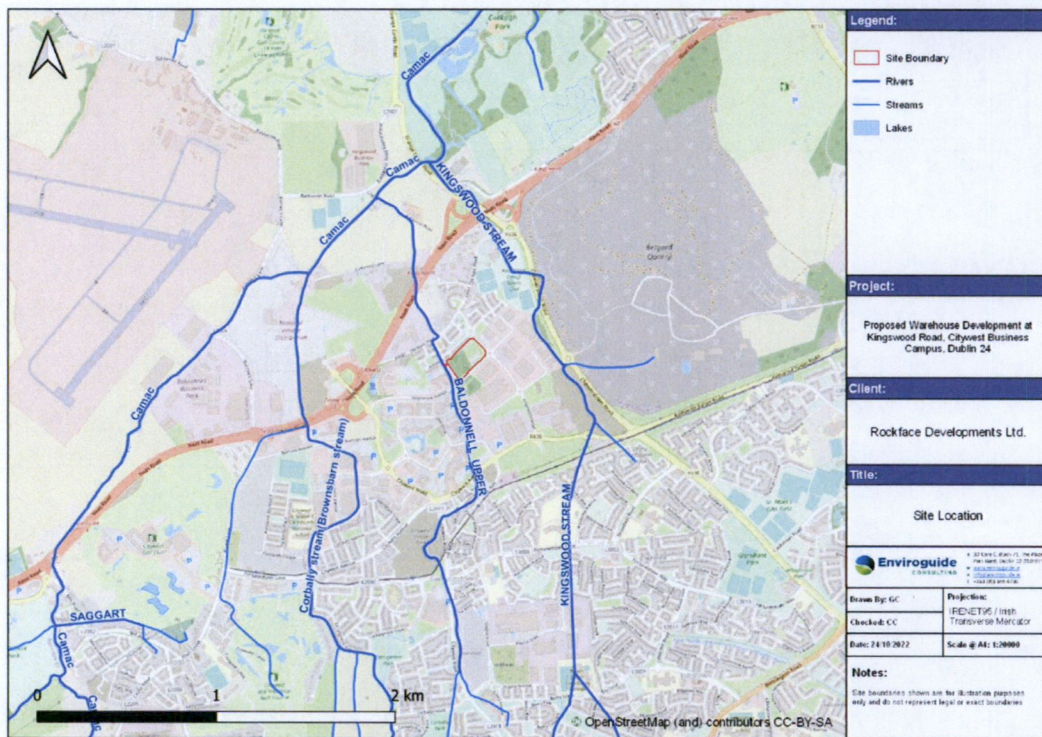
The Site is located at Kingswood Road, City West Business Park, Dublin 24 within an urban setting with the surrounding lands comprising commercial and residential land uses.

The Site is 2.62 hectares (Ha) and currently comprises a small derelict carparking area along the southeast boundary of the Site surrounded by undeveloped grass lands. The Site is bound the southeast by Kingswood Avenue, to the south-west by an ancillary car park associated with Citywest Business Campus, to the northwest by Kingswood Business Centre and Ardsolus Residential Development and to the northeast by Kingswood Road.

The Proposed Development Site is within lands that are zoned 'EE – Enterprise and Employment' under the South Dublin County Council Development Plan 2022-2028 (SDCC 2022-2028).

The Site location is presented in Figure 4-1.

Figure 4-1. Site Location



4.2 Topography

The topographical survey of the Site indicated that the Site slopes gently to the west with the overall topography ranging from approximately 99.6 meters above ordnance datum (mOD) in the east corner to 96.25mOD in the west corner.

4.3 Hydrology

The Site is mapped by the EPA (EPA, 2022) as within the WFD Catchment of the Liffey and Dublin Bay, Hydrometric Area (HA09), the Liffey_SC_090 Sub-catchment (Sub-catchment I.D.: 09_15) and the Camac_020 WFD River Sub Basin (European Code: IE_EA_09C020250).

The closest surface water feature is named locally and recorded on the EPA database (EPA, 2022) as the Baldonnell Upper River (River Waterbody Code: IE_EA_09C020250) located approximately 0.02km southwest of the Site.

The Kingswood Stream (River Waterbody Code: IE_EA_09C020310) and the Corbally Stream (River waterbody Code: IE_EA_09C020250) are located approximately 0.31km northeast and 0.74km southwest of the Site respectively.

The Baldonnell Upper River, the Kingswood Stream and the Corbally Stream flow northwards before converging with the Camac River (River Waterbody Code: IE_EA_09C020250) located approximately 0.9km northwest of the Site which in turn discharges to the Liffey Estuary Upper (European Code: IE_EA_090_0400) located approximately 10.2km northeast of the Site.

The local surface water features within the vicinity of the Site are presented in Figure 4-1.

4.4 Soil and Geology

The soils beneath the Proposed Development Site have been mapped by Teagasc (Teagasc, 2022) as moderately drained fine loamy drift with limestones of the Elton (1000x) soil series.

The subsoils or quaternary sediments beneath the Proposed Development Site are mapped by the GSI (GSI, 2022) as 'bedrock outcrop of subcrop (Rck)'.

The bedrock beneath the Site is mapped as the Lucan Formation (Stratigraphic Code: LU; New Code CDLUCN) which is comprised of dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey from the lower Carboniferous period. There are rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. The formation ranges from 300m to 800m in thickness (GSI, 2022).

4.5 Hydrogeology

The GSI (GSI, 2022) has classified the bedrock of the Lucan Formation beneath the Proposed Development Site and surrounding area as a Locally Important Aquifer (LI) (i.e. bedrock which is moderately productive only in Local Zones).

The GSI have assigned a groundwater vulnerability rating of "High (H)" for the groundwater beneath the majority of the Site and 'Extreme (E)' below the southern corner of the Site (GSI, 2022) indicating less than 5m of low permeability overburden.

Taking account of the soil drainage, subsoil permeability, thickness and type, the ability of the aquifer to accept the recharge, and rainfall, the GSI (GSI, 2022) have identified a groundwater recharge coefficient of 22.5% to 25% of effective rainfall with a calculated average capped recharge of 77mm/year to 93mm/year across the majority of the Site. A small portion of the Site along the southwest boundary has been identified by the GSI (GSI, 2022) to have a groundwater recharge coefficient of 60% and capped recharge of 200mm/year.

There are no identified or recorded karst landforms features (enclosed depressions, turloughs, springs etc.) identified at the Site or within a 2km radius of the Site (GSI, 2022).

5 STAGE 1 - FLOOD RISK IDENTIFICATION

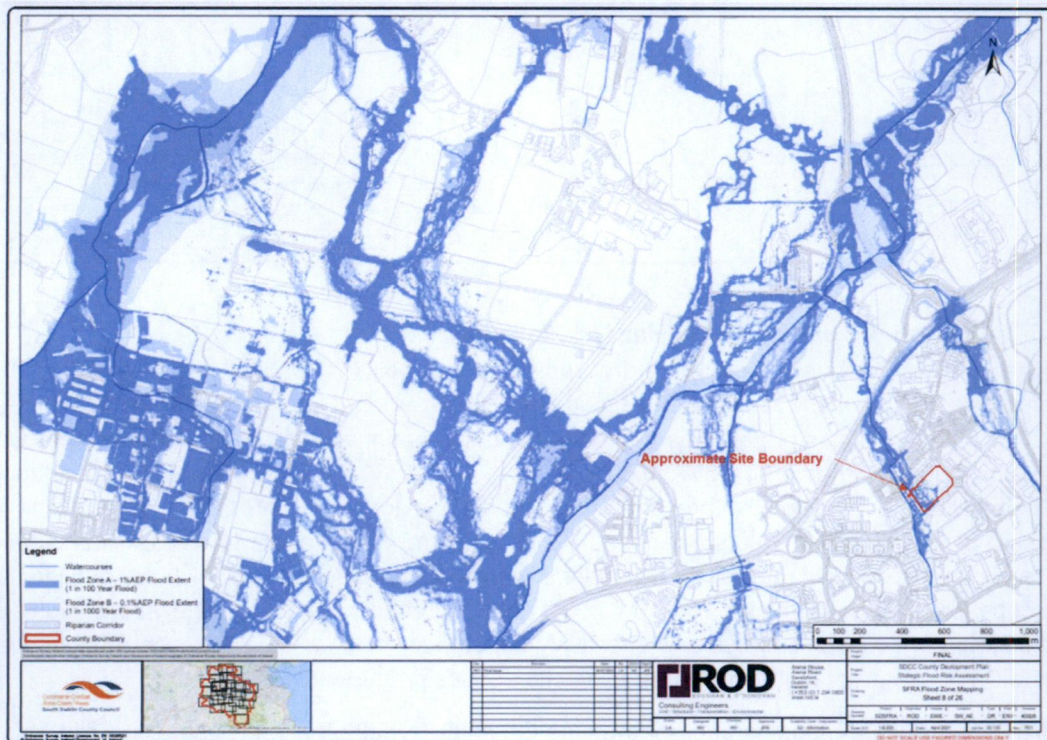
5.1 Strategic Flood Risk Assessment

The Strategic Flood Risk Assessment (SFRA), which was prepared to accompany the SDCC, 2022-2028 Development Plan, assesses all the types of flood risk within the SDCC jurisdiction area, identifying principal rivers and sources of flooding, producing flood maps, assessing potential impacts of climate change, and identifying the location of any flood risk management infrastructure.

5.1.1 Fluvial Flooding

The flood mapping published in the SFRA (SDCC, 2022-2028) identifies that the Site is located within the 1% AEP flood extent (i.e., Flood Zone A) for fluvial flooding of the Baldonnell Upper River (refer to Figure 5-1).

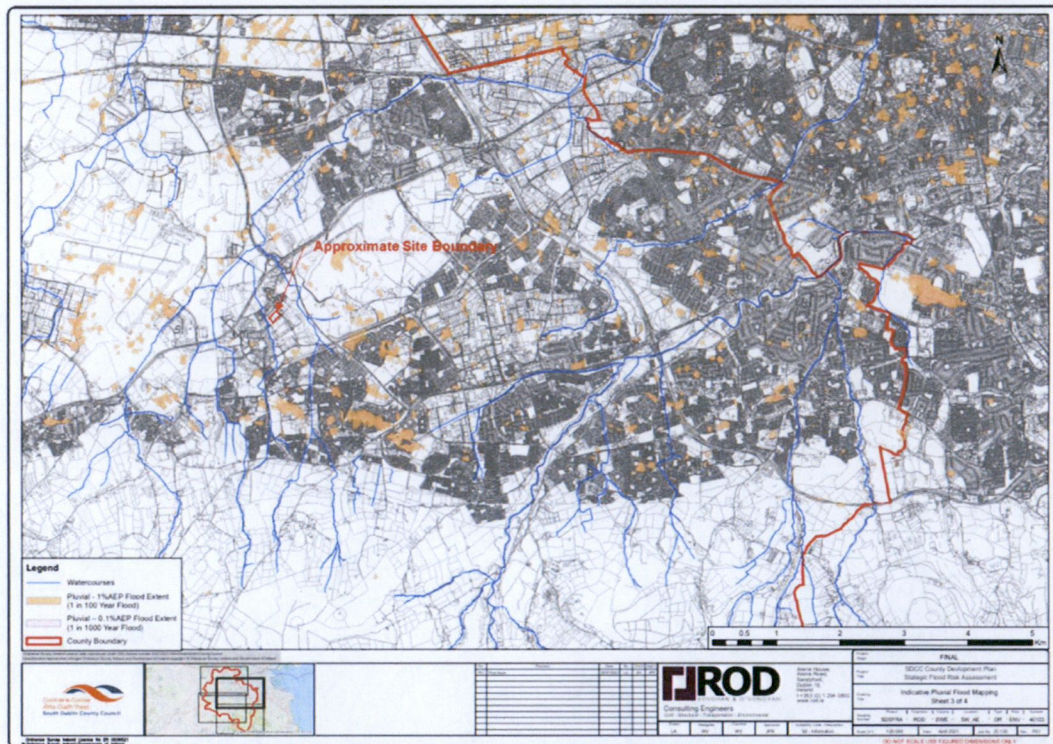
Figure 5-1. Fluvial Flood Mapping (SDCC, 2016-2022)



5.1.2 Pluvial Flooding

Pluvial flood mapping published in the SFRA (SDCC, 2022-2028) identifies that the Site is not within an area at risk of the 1% AEP and 0.1% AEP flood extents for pluvial flooding (refer to Figure 5-2).

Figure 5-2. Pluvial Flood Mapping (SDCC, 2022-2028)



5.2 National Coastal Flood Hazard Mapping

The National Coastal Flood Hazard Mapping project (NCFHM, 2021) was prepared and published by the OPW Coastal and Flood Risk Management Data Management Sections in 2021. The aim of this project was to produce updated national scale coastal flood extent and depth maps for the 50%, 20%, 10%, 5%, 2%, 1%, 0.5% and 0.1% Annual Exceedance Probabilities (AEPs) for the present day scenario and for the Mid-Range Future Scenario (MRFS) and High End Future Scenario (HEFS) which represent a 0.5m and 1.0m increase in sea level respectively (as well as two more extreme high end scenarios which are outside the scope of this assessment). NCFHM flood data represents best available information for flooding from coastal sources and effectively supersede the coastal flood maps produced by the OPW as part of the Irish Coastal Protection Strategy Study (ICPSS, 2013).

The coastal flood mapping published by the OPW (OPW, 2022) as part of the NCFHM study (NCFHM, 2021) was consulted and identifies that coastal flooding does not extend upstream as far as the Site along the Camac River and its tributaries (i.e., Baldonnell Upper River). The Proposed Development Site is therefore located within Flood Zone C.

5.3 Eastern CFRAM Predictive Flood Risk Mapping

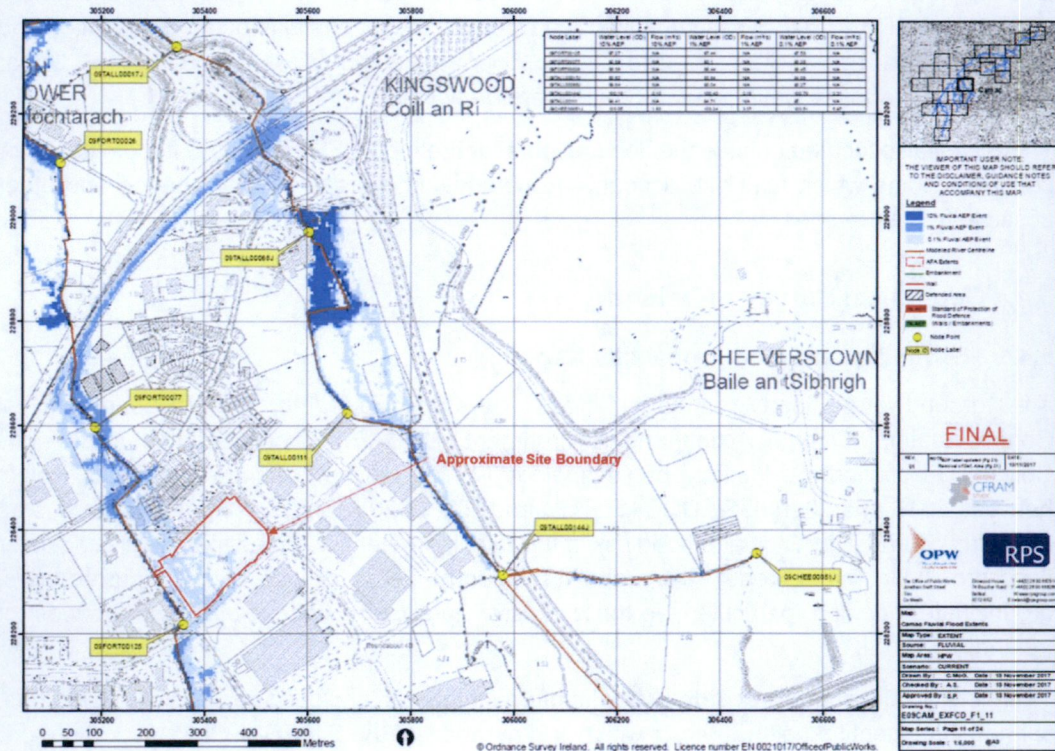
The Eastern Catchment Flood Risk Assessment and Management (CFRAM, 2017) study commenced by the OPW in the eastern district in June 2011 through to the end of 2016. The study focused on the areas known to have experienced flooding in the past and areas that may be subject to flooding in the future, either due to development pressures or climate change.

5.3.1 Fluvial Flooding

Fluvial flood mapping published by the OPW as part of the Eastern CFRAM Programme was consulted (CFRAM, 2017) and the Site is identified to be located within 0.1% AEP flood extent for fluvial flooding of the Baldonnell Upper River (refer to Figure 5-3).

The flood extents for the Mid-Range Future Scenario (MRFS) and the High-End Future Scenario (HEFS) take into account the potential impacts of climate change (i.e., 20% and 30% increase in rainfall) and other possible future changes. The Site is mapped to be potentially within the 1% AEP flood extents for HEFS and MRFS. However, it is noted that the OPW database does not contain detailed map information in relation to MRFS and HEFS future flood scenarios for the water courses in the vicinity of the Proposed Development. Therefore, the potential flood impacts and future flood events taking account of climate change are assessed based on the available CFRAM data and in accordance with best practice guidance (DEHLG, November 2009).

Figure 5-3. Fluvial Flood Mapping (CFRAM, 2017 – E09CAM_EXFCD_F1_06)



There is published CFRAM data and predicted flood levels for the Baldonnell Upper River near the Site. The predicted flood levels from the CFRAM, 2017 Fluvial Flood Maps (refer to Figure 5-3) at node locations 09FORT00125 and 09FORT00077 located on the Baldonnell Upper River approximately 0.23km southwest and upstream and 0.25km northwest and downstream of the Site respectively are presented in Table 5-1. The proposed Site levels area also included for reference.

Table 5-1. Predicted Flood Levels (CFRAM, 2017)

Node Label	Water Level (mOD) 10% AEP	Water Level (mOD) 1% AEP	Water Level (mOD) 0.1% AEP	Proposed Site Level (mOD)
09FORT00125	97.27	97.44	97.68	Warehouse (FFL): 98.50 Concrete Yard (minimum FFL): 97.30 Attenuation Tank (minimum manhole CL): 97.975 Detention Basin (top of bank): 98.225
09FORT00077	92.89	93.10	93.26	

5.3.2 Pluvial Flooding

Pluvial flood mapping published by the OPW as part of the Eastern CFRAM Programme was consulted (CFRAM, 2017) was consulted, however, there is no mapped information for the Site.

5.3.3 Coastal Flooding

Coastal flood mapping published by the OPW as part of the Eastern CFRAM Programme was consulted (CFRAM, 2017) was consulted, and identifies that coastal flooding does not extend upstream as far as the Site along the Camac River and its tributaries (i.e., Baldonnell Upper River). The Proposed Development Site is therefore located within Flood Zone C.

The Site is also located outside the flood extents for the for MRFS and HEFS flood extents for coastal flooding which take into account the potential impacts of climate change and other possible future changes.

5.4 Geological Survey of Ireland

5.4.1 Groundwater Flood Probability Mapping

The groundwater flood probability maps developed by the GSI, Department of Communication, Climate Action and Environment (DCCA), in collaboration with Trinity College Dublin and the Institute of Technology Carlow for the Groundwater Flood Project between 2016 and 2019 (GSI, DCCA, TCD and ITC, 2020) were consulted and there is no identified potential groundwater flood risk at the Site. However, it is noted that the groundwater flood probability maps present the probabilistic flood extents for locations of recurrent karst groundwater flooding, particularly in the extensive karstic limestone lowlands in the west of Ireland.

There are no identified or recorded karst landforms features (enclosed depressions, turloughs, springs etc.) identified at the Site or within a 2km radius of the Site (GSI, 2022).

5.4.2 Historic Groundwater Flood Mapping

The historic groundwater water flood maps were developed by the GSI as a by-product of the groundwater flood probability maps (GSI, DCCA, TCD and ITC, 2020). The historic groundwater water flood maps identify the peak flood extents caused by groundwater during the winter 2015/2016 flood event.

The historic groundwater water flood maps published by the GSI (GSI, 2022) were also consulted and there is no historic groundwater flooding identified at the Site or within a 2km radius of the Site.

5.4.3 Surface Water Flood Mapping

The historic surface water flood maps were developed by the GSI as a by-product of the GSI groundwater flood probability maps (GSI, DCCAE, TCD and ITC, 2020). The historic surface water flood maps identify the fluvial and pluvial floods, excluding urban areas, during the winter 2015/2016 flood event.

The historic surface water flood maps published by the GSI (GSI, 2022) were consulted and there is no historic surface water flooding identified at the Site or within a 2km radius of the Site.

5.5 National Flood Hazard Mapping

The OPW national flood hazard mapping (NFHM) (OPW, 2022) was consulted to obtain reports of recorded flooding within 2km radius of the Site. The NFHM database lists two (2No.) recurring flood events and eight (8No.) single flood events within a 2km radius of the Proposed Development Site and the closest is 0.41km from the Site (refer to Figure 5-4 and Table 5-2).

Figure 5-4. Past Flood Events within 2.5km of the Site (Source: OPW, 2022)

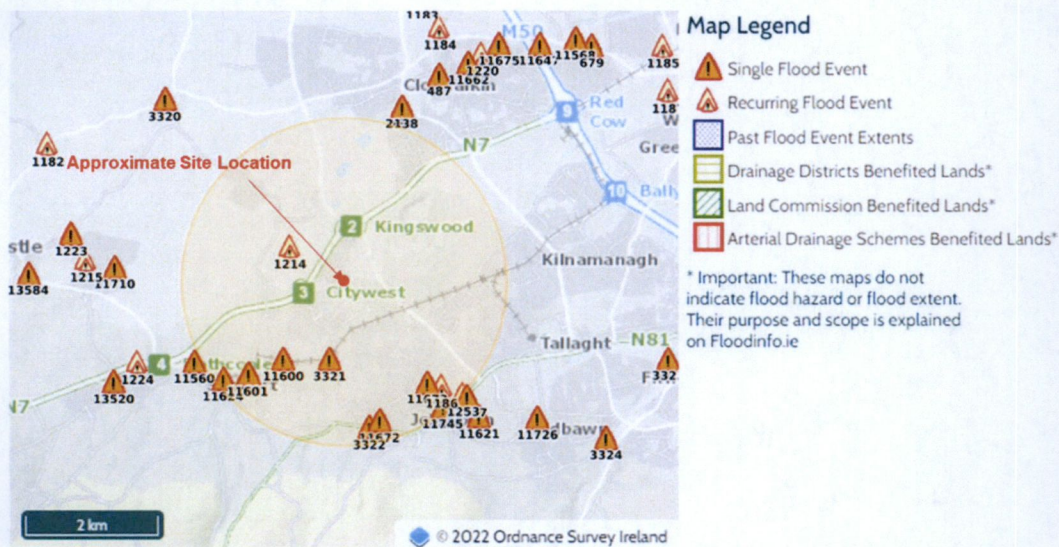


Table 5-2. Recorded Flood Events within 2.5km (Source: OPW, 2022)

Flood I.D.	Flood Type	Flood Event	Date (dd/mm/yyyy)
1186	Recurring	Killinarden Stream Jobstown	N/A
1214	Recurring	Baldonnell Barney's Lane	N/A
3322	Single	Jobstown N81	05/11/2000
11745	Single	Flooding at Blessington Road, Podzolics, Dublin 24	01/05/2012
3321	Single	Fortunestown Lane	06/11/2000
11600	Single	Flooding at Fortunestown Lane, Citywest, Co. Dublin	24/10/2011
11601	Single	Flooding at Garter Lane, Saggart, Co. Dublin	24/10/2011
11624	Single	Flooding at Mill Road, Saggart, Co. Dublin	24/10/2011

Flood I.D.	Flood Type	Flood Event	Date (dd/mm/yyyy)
11672	Single	Flooding at Belfry Drive / De Selby Park, Dublin 24	24/10/2011
11673	Single	Flooding at Bawnlea Crescent and Avenue, Tallaght, Co. Dublin	24/10/2011

There are no recorded historic flood events or hazards recorded for the Site and the adjoining properties and roadways.

6 STAGE 2 – INITIAL FLOOD RISK ASSESSMENT

6.1 Appraisal of the Availability and Adequacy of Existing Information

Based on the findings of the desk-based assessment (refer to Section 5) and taking account of the design proposals for the Proposed Development provided by the Client it is considered that there is sufficient technical information to complete the Initial Flood Risk Assessment for the Site.

6.2 Evaluation of Potential Sources of Flooding

The types of flooding sources which could potentially affect the Proposed Development have been evaluated and are discussed below.

6.2.1 Fluvial Flood Risk

The carparking area and access road to the Site from Kingswood Road are located outside the 0.1% AEP, 1% AEP and 10% AEP flood extents and therefore there is no identified risk of fluvial flooding. However, the concrete yard area and a portion of the warehouse at the Site are located within the 0.1% AEP and 1% AEP flood extents for fluvial flooding.

The predicted flood levels from the CFRAM, 2017 Fluvial Flood Maps (refer to *Figure 5-3*) at node locations 09FORT00125 and 09FORT00077 located on the Baldonnell Upper River approximately 0.23km southwest and upstream and 0.25km northwest and downstream of the Site respectively were used to assess the potential for fluvial flooding at the Site by comparing these to the proposed Site levels (refer to Table 6-1).

Table 6-1. Predicted Flood Levels (CFRAM, 2017) and Calculated Freeboard

Node Label	Proposed Elevation (mOD)	Flood Water Level (mOD)		
		10% AEP	1% AEP	0.1% AEP
09FORT00077	-	92.89	93.10	93.26
09FORT00125	-	97.27	97.44	97.58
Site Locations		Calculated Freeboard (m)		
Freeboard – Warehouse (FFL)	98.50	1.26	1.06	0.92
Freeboard - Concrete Yard (minimum FFL)	97.30	0.03	-0.14	-0.28
Freeboard - Attenuation Tank (minimum manhole CL)	97.975	0.705	0.535	0.395
Freeboard - Detention Basin (top of Bank)	98.225	0.955	0.785	0.645

Based on a minimum freeboard of 500mm above the 1% AEP (SDCC, 2016-2022 SFRA; note that the SDCC, 2022-2028 SFRA does not specify a minimum freeboard) it is considered that should the effects of climate change be realised, there will be no risk associated with fluvial flooding of the warehouse the detention basin.

The minimum finished floor level of the concrete yard in the area above the proposed attenuation tank is 97.3mOD which is set to 0.14m below the predicted 1% AEP (refer to Table 6-1). However, the minimum cover level of the manhole chambers for the attenuation tank and Class I By-pass Separator will meet the minimum required freeboard allowance of 500mm and therefore, there will be no risk associated with fluvial flooding of the onsite drainage system.

Furthermore, the manhole chambers have been designed to be hydraulically sealed to prevent any inundation with surface or flood water. The use of non-return valves is also incorporated to prevent any surcharging of the onsite drainage system including interceptor, attenuation tank and detention basin

6.2.2 Coastal Flood Risk

Coastal flood mapping (NCFHM, 2021 and CFRAM, 2017) was consulted, and identifies that coastal flooding does not extend upstream as far as the Site along the Camac River and its tributaries including the Baldonnell Upper River.

6.2.3 Pluvial Flood Risk

Based on the available published flood maps (Section 5.1.2 and Section 5.3.2) there is no identified pluvial flood risk identified at the Site.

The surface water drainage design for the Site has been designed to cater for surface water runoff from impermeable areas, within the proposed development, in accordance with the GSDS and will contain the 1 in 100-year event plus 20% climate change allowance.

Discharge from the Site will be attenuated to greenfield runoff rates via an appropriately sized attenuation tank and detention basin, and utilising vortex flow control devices prior to discharging to the Baldonnell Upper River.

Therefore, taking account of the design of the surface water drainage which incorporates SUDS at the Site, it is considered that there will be no risk of pluvial flooding.

6.2.4 Groundwater Flood Risk

There are no historical records of groundwater flooding at the Proposed Development Site or within 2km of the Site and Proposed Development (GSI, 2022).

There are no identified or recorded karst landforms features (enclosed depressions) identified at the Site or within a 2km radius of the Proposed Development Site (GSI, 2022) and the absence of depressions / groundwater seeps or springs was verified during the site walkover survey. Therefore, taking account of the hydrogeological setting of the Site, the potential risk of groundwater flooding is considered low.

6.3 Flood Risk Evaluation

The carparking area and access road to the Site from Kingswood Road are located outside the 0.1% AEP flood extents where there is no identified flood risk.

Based on the available published data within the SDCC, 2022-2028 SFRA maps a portion of the Site is potentially located within the 1% AEP flood extents where the probability of coastal or fluvial flooding is high. However, given the proposed finished floor levels of the warehouse, the manhole chambers for the attenuation tank and Class I By-pass Separator, and the top of bank of the detention basin together with the available freeboard above the 1% AEP fluvial flood it is considered that there is a low potential fluvial flood risk to the Site.

There is no identified risk of pluvial flooding at the Site taking account of the existing conditions and the design proposals for surface water management at the Site.

The Site is not within an area at risk of groundwater flooding.

7 ASSESSMENT FOR APPROPRIATE DEVELOPMENT

7.1 Flood Zone for the Proposed Development

Following a review of the available data, it is considered that the concrete yard area including the underground attenuation tank, the detention basin and a portion of the warehouse at the Site are located within Flood Zone A where the probability of flooding from rivers and the sea is high (greater than 1% or 1 in 100 for river flooding and 0.5% or 1 in 200 for coastal flooding).

The remaining areas of the Site including the carparking area and access road to the northeast of the Site are located within Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

7.2 Vulnerability Class of Development

The proposed development at the Site comprises the construction of a warehouse with ancillary offices and staff facilities and is therefore considered a 'less vulnerable development' in accordance with Table 3.1 of the DEHLG, November 2009 guidelines (refer to Table 7-1 below).

Table 7-1: Classification of Vulnerability of Different Types of Development

Vulnerability Class	Land Uses and types of development which include*:
Highly vulnerable development (including essential infrastructure)	<p>Garda, ambulance and fire stations and command centres required to be operational during flooding;</p> <p>Hospitals; Emergency access and egress points;</p> <p>Schools;</p> <p>Dwelling houses, student halls of residence and hostels;</p> <p>Residential institutions such as residential care homes, children's homes and social services homes;</p> <p>Caravans and mobile home parks;</p> <p>Dwelling houses designed, constructed or adapted for the elderly or, other people with impaired mobility; and</p> <p>Essential infrastructure, such as primary transport and utilities distribution, including electricity generating power stations and sub-stations, water and sewage treatment, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding.</p>
Less vulnerable development	<p>Buildings used for: retail, leisure, warehousing, commercial, industrial and non-residential institutions;</p> <p>Land and buildings used for holiday or short-let caravans and camping, subject to specific warning and evacuation plans;</p> <p>Land and buildings used for agriculture and forestry;</p> <p>Waste treatment (except landfill and hazardous waste);</p> <p>Mineral working and processing; and</p> <p>Local transport infrastructure.</p>
Water-compatible development	<p>Flood control infrastructure; Docks, marinas and wharves; Navigation facilities;</p> <p>Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location;</p> <p>Water-based recreation and tourism (excluding sleeping accommodation);</p> <p>Lifeguard and coastguard stations;</p> <p>Amenity open space, outdoor sports and recreation and essential facilities such as changing rooms; and</p>

Vulnerability Class	Land Uses and types of development which include*:
	Essential ancillary sleeping or residential accommodation for staff required by uses in this category (subject to a specific warning and evacuation plan).
*Uses not listed here should be considered on their own merits	
*Source - Extract from DEHLG, November 2009. The Planning System and Flood Risk Management Guidelines for Planning Authorities	

7.3 Evaluation of Appropriate Development

The Site is located within lands that are zoned 'EE – Enterprise and Employment' under the SDCC, 2022-2028 Development Plan. As such, the proposed development at the Site is deemed suitable for the policies and objectives assigned to this area.

As mentioned in Section 5.1.1, fluvial flood mapping published in the SDCC, 2022-2028 SFRA identifies that the Site is located within Flood Zone A. Therefore, in accordance with Table 2-2 a Justification Test was undertaken at the Site on the basis that the Site is located in Flood Zone A.

7.3.1 Justification Test for the Proposed Development

The Justification Test for Development Management has been undertaken in accordance with the DEHLG, 2009 Guidelines as outlined in Table 7-2 below.

Table 7-2. Justification Test for Development Management

Justification Test Criteria
When considering proposals for development, which may be vulnerable to flooding, and that would generally be inappropriate as set out in Table 3.2 (DEHLG, 2009), the following criteria must be satisfied:
Justification Test – Criteria 1
The subject lands have been zoned or otherwise designated for the particular use or form of development in an operative development plan, which has been adopted or varied taking account of these Guidelines.
Justification Test – Criteria 2
The proposal has been subject to an appropriate flood risk assessment that demonstrates: <ul style="list-style-type: none"> (i) The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk; (ii) The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible; (iii) The development proposed includes measures to ensure that residual risks to the area and/or development can be managed to an acceptable level as regards the adequacy of existing flood protection measures or the design, implementation and funding of any future flood risk management measures and provisions for emergency services access; and (iv) The development proposed addresses the above in a manner that is also compatible with the achievement of wider planning objectives in relation to development of good urban design and vibrant and active streetscapes. <p>The acceptability or otherwise of levels of residual risk should be made with consideration of the type and foreseen use of the development and the local development context. Note: See section 5.27 in relation to major development on zoned lands where sequential approach has not been applied in the operative development plan. Refer to section 5.28 in relation to minor and infill developments.</p>
Source - Extracted from DEHLG Guidelines, 2009

7.3.2 Justification Test – Criteria 1

The Proposed Development at the site meets this criterion as follows:

- The Site is located within lands that are zoned 'EE – Enterprise and Employment' under the SDCC 2016-2022 Development Plan and therefore, the industrial warehouse at the proposed development Site is deemed suitable and in accordance with the policies and objectives assigned to this area.

7.3.3 Justification Test – Criteria 2

Under Criteria 2 it must be demonstrated that the Proposed Development is not at undue risk of flooding, nor does it increase the risk of flooding elsewhere. It also needs to demonstrate low residual risk and resilience to climate change. Criteria 2 includes four specific sub-criteria which must be addressed with appropriate flood mitigation measures, where necessary, to ensure the development complies fully with the Development Management Justification Test.

A summary of the mitigation and design measures with respect to the four sub-criteria which must be addressed in Criteria 2 are discussed below.

- (i) *The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk.*

During the development of the Site there will be no alterations to the flow path of the Baldonnell Upper River and therefore the current hydrological conditions will be maintained in the water course.

Site drainage has been designed in accordance with GSDSDS and SUDS principles and therefore includes adequate attenuation for surface water runoff from the Site which will be attenuated to discharge at greenfield runoff rates via an appropriately sized attenuation tank and detention basin, and utilising site-specific vortex flow control devices prior to discharging to the Baldonnell Upper River.

Therefore, taking account of the design of the surface water drainage at the Site, it is considered that there will be no risk of pluvial flooding elsewhere as a result of the proposed development and the requirements of this criterion are achieved.

- (ii) *The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible.*

As outlined in Section 6.2.1 there is no identified risk of flooding to the access route and building at the Site.

Based on the available published data within the SDCC, 2022-2028 SFRA maps and an assessment of potential sources of flood, the concrete yard area including the underground attenuation tank, the detention basin and a portion of the warehouse at the Site are potentially located within the 1% AEP flood extents where the probability of coastal or fluvial flooding is high. However,

The proposed finished floor levels of the warehouse include a freeboard allowance of 1.06mOD above the 1% AEP fluvial flood depth and therefore there is no identified undue risk of flooding.

The top of bank elevation of the proposed detention basin includes a freeboard allowance 0.785m above the 1% AEP flood level and therefore there is no identified undue risk of flooding.

The minimum cover level of the manhole chambers for the attenuation tank and Class I By-pass Separator includes a freeboard allowance 0.535m above the 1% AEP flood level and therefore there is no identified undue risk of flooding. Furthermore, the drainage design includes flow control (non-return) valves and sealed manhole covers for the attenuation tank and Class I By-Pass Separator to prevent any surcharging to the onsite drainage system and are therefore defended against any surface water breach and environmental harm.

Therefore, it is considered that requirements of this criterion are achieved.

(iii) The development proposed includes measures to ensure that residual risks to the area and/or development can be managed to an acceptable level as regards the adequacy of existing flood protection measures or the design, implementation and funding of any future flood risk management measures and provisions for emergency services access.

Based on the proposed design elevations there is no mitigation or flood protection measures required for the proposed design. There are no restrictions on access for the emergency services via the carparking area in the northeast of the Site and there is no potential flood risk identified.

Therefore, it is considered that the requirements of this criterion are achieved.

(iv) The development proposed addresses the above in a manner that is also compatible with the achievement of wider planning objectives in relation to development of good urban design and vibrant and active streetscapes.

The proposed development at the Site is for a warehouse development and as the Site is located within lands that are zoned 'EE – Enterprise and Employment' under the SDCC 2022-2028 Development Plan it is considered that this criterion is achieved.

8 CONCLUSIONS

EGC has completed an FRA in accordance with the guidelines set out in 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' (DEHLG, November 2009) and based on the findings of the assessment the following can be concluded:

- The Proposed Development is for the construction of a proposed warehouse development including ancillary offices and staff facilities at Kingswood Road, Citywest Business Campus, Dublin 24.
- The Proposed Development is considered to be a 'less vulnerable development' in accordance with Table 3.1 of the DEHLG, 2009 guidelines.
- Following a review of the available data, it is considered that the concrete yard area including underlying attenuation tank, the detention basin and a portion of the warehouse at the Site are located within Flood Zone A
- The remaining areas of the Site including the carparking area and access road to the northeast of the Site area located within Flood Zone C.
- Given the proposed finished floor levels of the warehouse, the manhole chambers for the attenuation tank and Class I By-pass Separator, and the top of bank of the detention basin together with the available freeboard above the 1% AEP fluvial flood levels, it is considered that should the effects of climate change be realised, there will be no risk associated with fluvial flooding at the Site
- There is no identified risk of flooding elsewhere associated with the Proposed Development.
- The requirements of the Justification Test Criteria are achieved for the Proposed Development.
- Therefore, the Proposed Development is considered Justified in accordance with guidelines set out in 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' (DEHLG, November 2009).

9 REFERENCES

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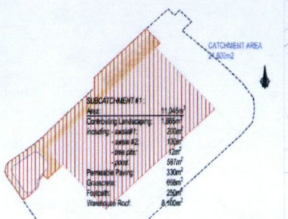
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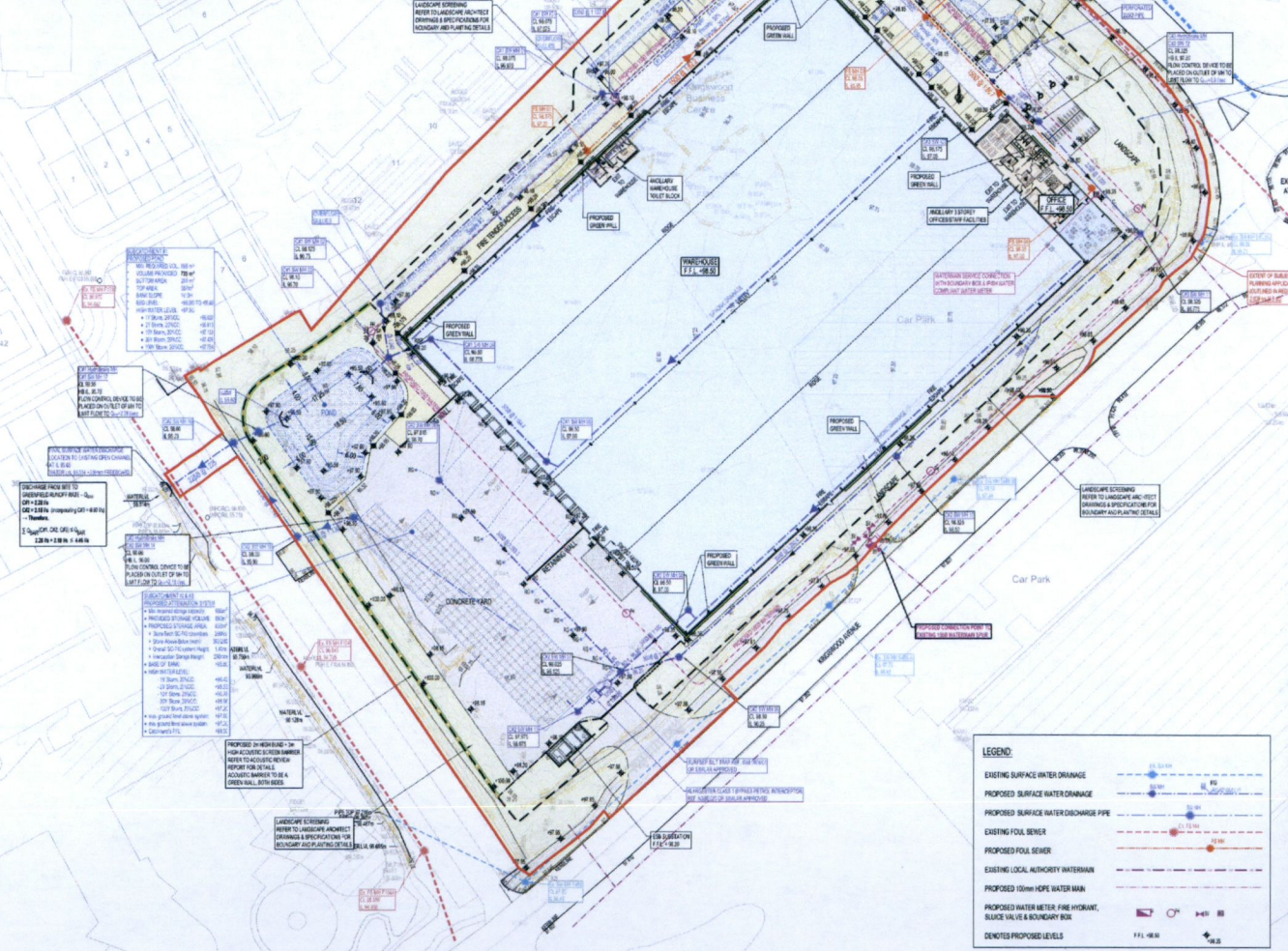
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Appendix A



- PROPOSED BASIN DEVICES THROUGHOUT DEVELOPMENT:**
- PERMEABLE PAVING (TO THE ACCESS ROAD TO THE CAR PARKING)
 - GRANULITE PAVING (TO THE CAR PARKING SPACES AND FIRE TENDER ACCESS)
 - GREEN WALLS (TO EACH SIDE OF BUILDING)
 - TREE PITS (AT THE CAR PARKING AREA AS PER LANDSCAPE DRAWINGS)
 - SWALES (LINED UP BEHIND CAR PARKING SPACES)
 - POND
 - UNDERGROUND 'STORAGE' ATTENUATION TANK
 - FLOW CONTROL DEVICES (TO THE OUTSIDE OF ALL STORAGE SYSTEMS)
 - SILT TRAP & PETROL INTERCEPTOR (TO THE INLET OF TO UNDERGROUND ATTENUATION SYSTEM)
- FOR DETAILS AND CROSS SECTIONS OF EACH ABOVE LISTED BASIN DEVICE REFER TO DRAWING REF: D176 - 04 - BASIN & DRAINAGE DETAILS.

- LEGEND**
- DENOTES PROPOSED CONCRETE FOOTPATH
 - DENOTES LANDSCAPES FOR DETAILS REFER TO LANDSCAPE ARCHITECT DRAWINGS AND SPECIFICATIONS
 - DENOTES PERMEABLE PAVING FOR DETAILS REFER TO LANDSCAPE ARCHITECT DRAWINGS AND SPECIFICATIONS
 - DENOTES GRANULITE TOWNE THICKER ROAD & PARKING SPACES FOR DETAILS REFER TO LANDSCAPE ARCHITECT DRAWINGS AND SPECIFICATIONS
 - DENOTES CONCRETE TO PROPOSED YARD



WATER NOTES
 Watermain Pipework Material to be PE (Polyethylene) with PE 100 rating.
 All pipe work shall conform to IS EN 12201, Part 1 and Part 2 and IS EN 12203.
 Separation Distance between Watermain and any other service to be as per Section 3.4 of Water Code of Practice. In this instance there will be a minimum clear horizontal distance of a 300mm between proposed watermain and other utility services parallel to it.
 The plan attached comply with Irish Water's Code of Practice for Water and Standard Details. All site works shall comply and be completed to Irish Water codes of Practice and Standard Details.
 This Drawing shall be used as the final and approved 'Construction Drawing' for Watermain Installation.
 The Standard Details and Codes of Practice can be downloaded and viewed at <http://www.water.ie> under 'accessories/development services'.

WATERMAIN NOTES
 All pipe work shall be Thermoplastic Encased Metal Pipes to comply with the provisions of IS EN 14747, with a minimum class of HDPE2. Refer to Section 3.13.2 of 'Irish Water Code of Practice'.
 The plan attached comply with Irish Water's Code of Practice for Watermain and Standard Details. All site works shall comply and be completed to Irish Water codes of Practice and Standard Details.
 All Standard Details and Codes of Practice can be downloaded and viewed at <http://www.water.ie> under 'accessories/development services'.

CATCHMENT AREA = 21,000m² (CULVERTED PLAINSHED LAND)

- Sub-Catchment #1 Area = 11,200m²
- Sub-Catchment #2 Area = 7,420m²
- Sub-Catchment #3 Area = 2,380m²

Area shown in red is not for details of each Sub-Catchment.

NOTE:
 REFER TO ENCLOSED DRAINAGE DESIGN REPORT FOR DETAILS.

PL2	1/10/20	PL	BASED FOR PLANNING ADDITIONAL INFORMATION
PL1	1/10/20	PL	ISSUE FOR PLANNING
Rev	Rev	Rev	Rev

Project Name: **WAREHOUSE DEVELOPMENT AT CITYWEST BUSINESS PARK, KINGSWOOD ROAD, DUBLIN 24**

Client: **DRAINAGE & WATERMAIN LAYOUT**

Client Name: **ROCKFACE DEVELOPMENTS LTD.**

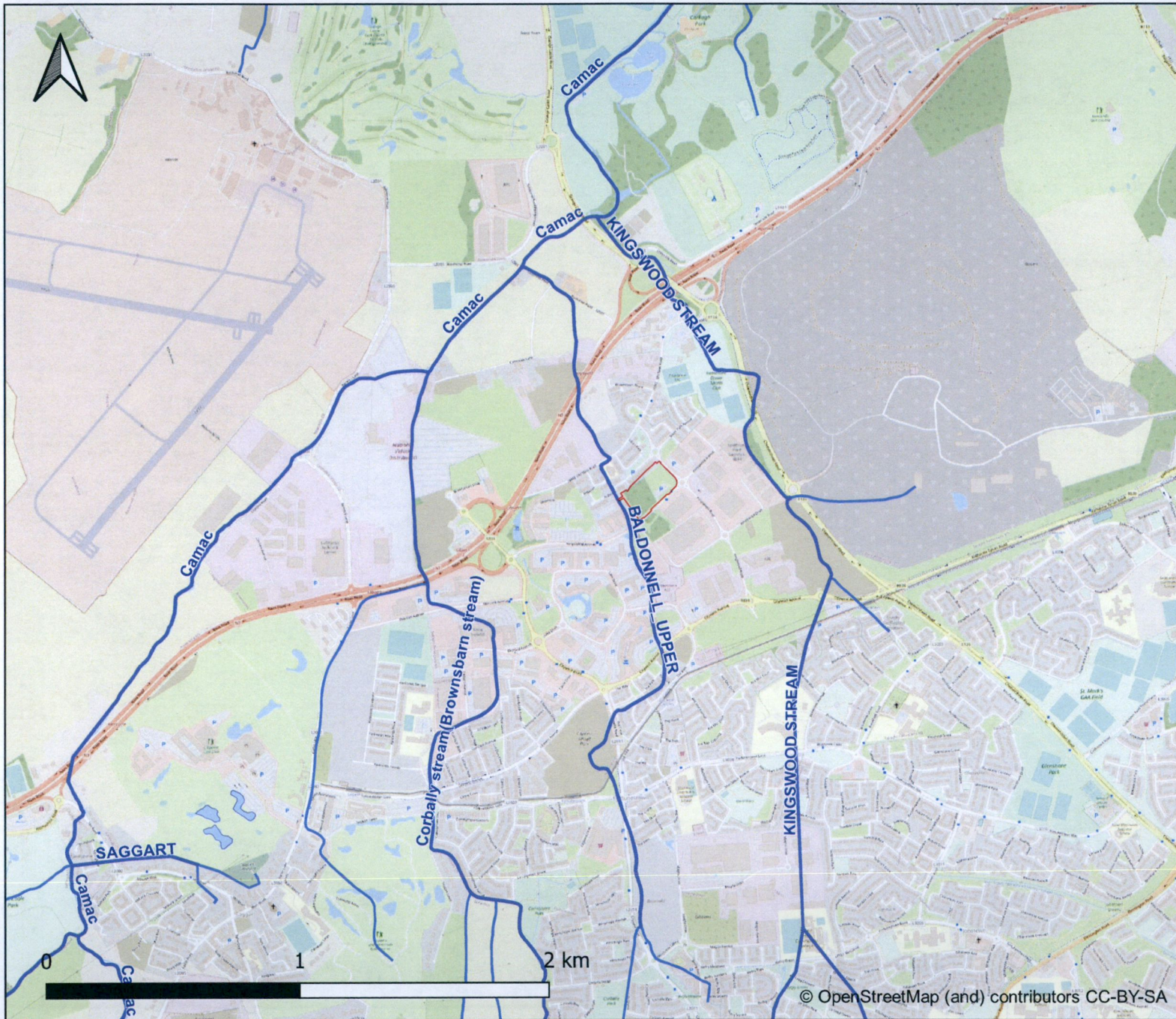
Engineer: **KAVANAGH BURKE CONSULTING ENGINEERS**

Contact: Tel: 01-406 0984, Fax: 01-406 4340, Email: info@kavanaghburke.com

Project No: **D1736**, Date: **03**, Sheet: **PL2**



Appendix B



Legend:

- Site Boundary
- Rivers
- Streams
- Lakes

Project:

Proposed Warehouse Development at Kingswood Road, Citywest Business Campus, Dublin 24

Client:

Rockface Developments Ltd.

Title:

Site Location

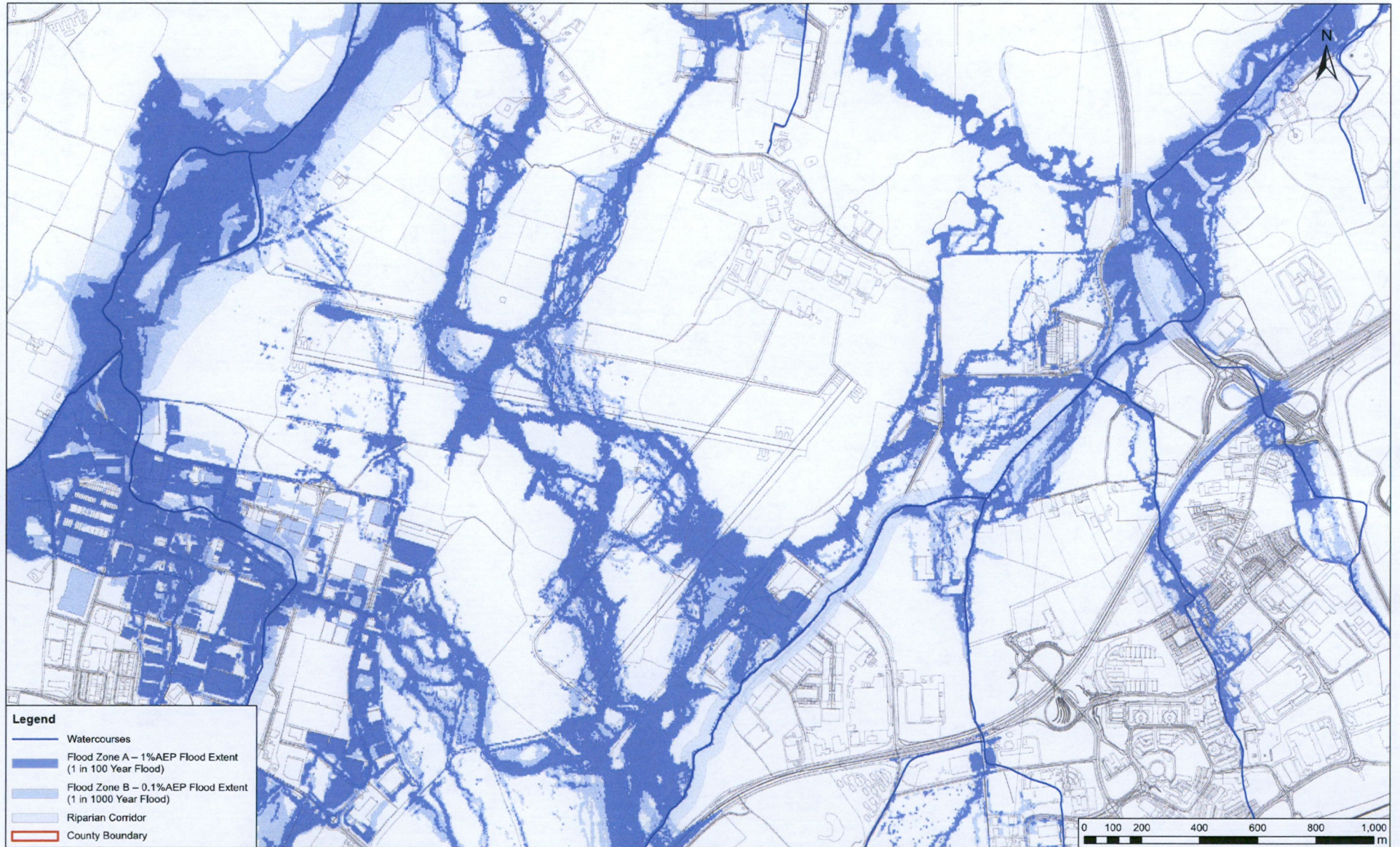
Enviroguide CONSULTING
30 Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TN
 www.enviroguide.ie
 info@enviroguide.ie
 +353 (0)1 565 4730

Drawn By: GC	Projection: IREN95 / Irish Transverse Mercator
Checked: CC	
Date: 24/10/2022	Scale @ A4: 1:20000

Notes:

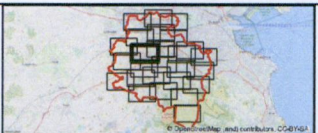
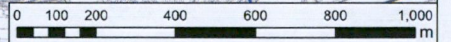
Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries

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Legend

- Watercourses
- Flood Zone A - 1% AEP Flood Extent (1 in 100 Year Flood)
- Flood Zone B - 0.1% AEP Flood Extent (1 in 1000 Year Flood)
- Riparian Corridor
- County Boundary



No.	Revision	Date	By	Check	App'd

ROD
ROUGHAN & O'DONOVAN
Consulting Engineers
Civil - Structural - Transportation - Environmental

Arena House,
Arena Road,
Sandyford,
Dublin 18,
Ireland
T +353 (0) 1 294 0800
www.rod.ie

Drawn	Design	Checked	Approved	Subsidiary Code - Description
LA	WV	WV	JPR	S2 - Information

DRAFT

Project Stage: **DRAFT**

Project Title: **SDCC County Development Plan Strategic Flood Risk Assessment**

Drawing Title: **SFRA Flood Zone Mapping Sheet 8 of 26**

Project	Originator	Values	Location	Type	Risk	Number
SDSFRA	ROD	EVE	SW_AE	DR	ENV	40008

Scale (A1): 1:6,000 Date: April 2021 Job No: 20.126 Rev:

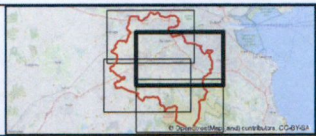
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DO NOT SCALE USE FIGURED DIMENSIONS ONLY



Legend

- Watercourses
- Pluvial - 1%AEP Flood Extent (1 in 100 Year Flood)
- Pluvial - 0.1%AEP Flood Extent (1 in 1000 Year Flood)
- County Boundary



No.	Revision	Date	By	Chk'd	App'd

ROD
ROUGHAN & O'DONOVAN
Consulting Engineers
Civil - Structural - Transportation - Environmental

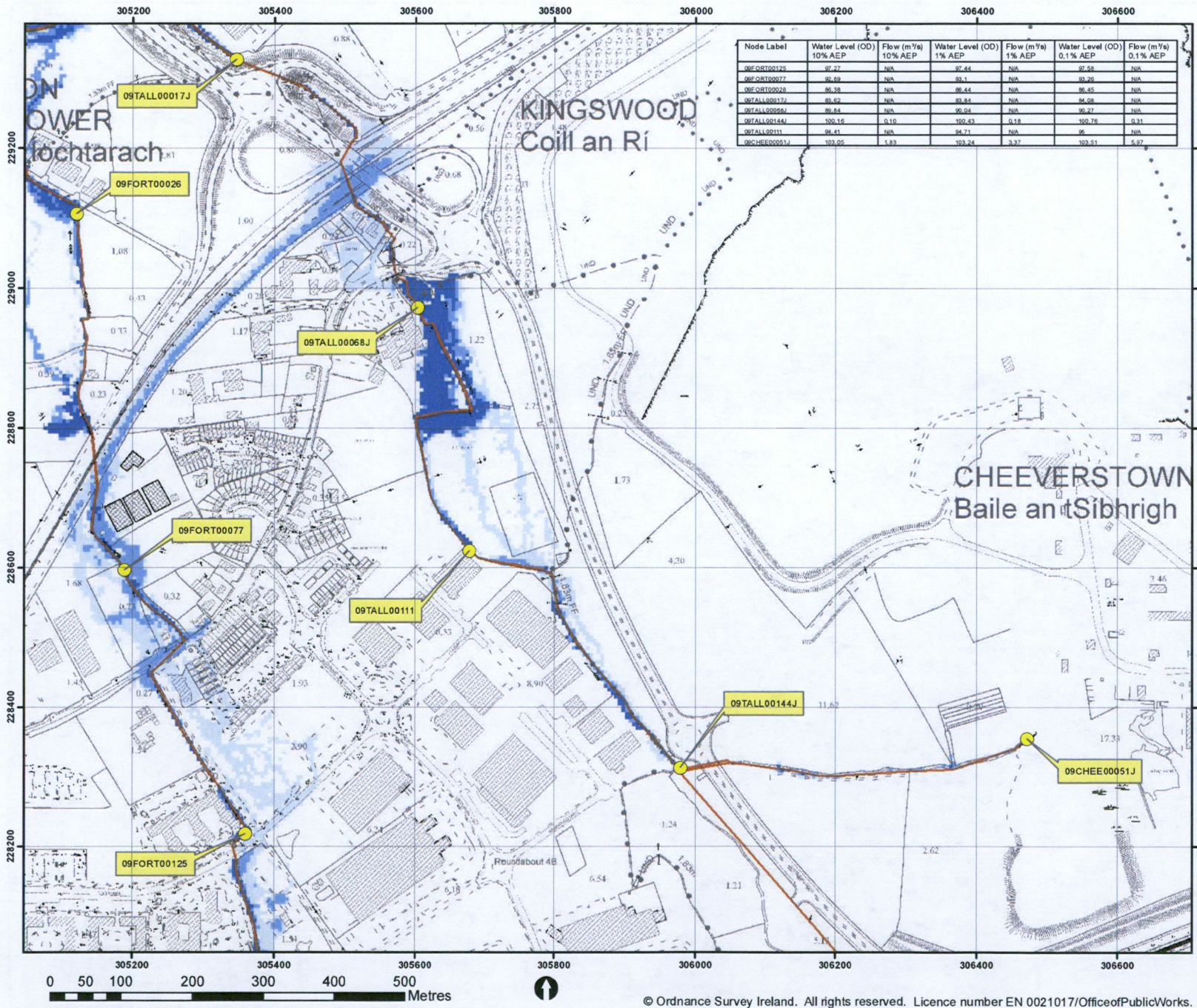
Arena House,
Arena Road,
Sandyford,
Dublin 18,
Ireland
t +353 (0) 1 294 0800
www.rod.ie

Drawn	Design	Checked	Approved	Subsidiary Code - Description
LA	WV	WV	JPH	62 - Information

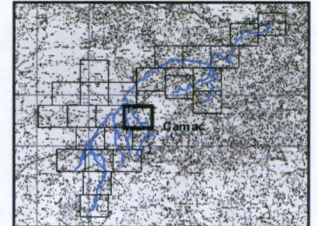
Project Stage	DRAFT				
Project Title	SDCC County Development Plan Strategic Flood Risk Assessment				
Drawing Title	Indicative Pluvial Flood Mapping Sheet 3 of 4				
Drawing Number	Project	Designer	Volume	Location	Type Risk Number
	SDSFRA	ROD	EWE	SW_AE	DR - ENV - 40103
Scale (A1)	1:20,000	Date	April 2021	Job No.	20.126 Rev.

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DO NOT SCALE USE FIGURED DIMENSIONS ONLY



Node Label	Water Level (OD) 10% AEP	Flow (m³/s) 10% AEP	Water Level (OD) 1% AEP	Flow (m³/s) 1% AEP	Water Level (OD) 0.1% AEP	Flow (m³/s) 0.1% AEP
09FORT00125	97.27	N/A	97.44	N/A	97.58	N/A
09FORT00077	97.89	N/A	98.1	N/A	98.26	N/A
09FORT00026	96.38	N/A	96.44	N/A	96.45	N/A
09TALL00017J	93.92	N/A	93.84	N/A	94.08	N/A
09TALL00068J	99.84	N/A	99.04	N/A	96.27	N/A
09TALL00144J	109.14	0.10	109.43	0.18	109.78	0.31
09TALL00111	98.41	N/A	98.71	N/A	98	N/A
09CHEE00051J	103.05	1.43	103.24	3.37	103.51	5.97



IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

- Legend**
- 10% Fluvial AEP Event
 - 1% Fluvial AEP Event
 - 0.1% Fluvial AEP Event
 - Modelled River Centreline
 - AFA Extents
 - Embankment
 - Wall
 - Defended Area
 - 10% AEP Standard of Protection of Flood Defence (Walls / Embankments)
 - Node Point
 - Node ID Node Label

FINAL

REV 01	NOTES: Top label updated (Pg 21) Removal of Def. Area (Pg 21)	DATE: 13/11/2017
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Map: Camac Fluvial Flood Extents	
Map Type: EXTENT	
Source: FLUVIAL	
Map Area: HPW	
Scenario: CURRENT	
Drawn By: C.McG. Date: 13 November 2017	
Checked By: A.S. Date: 13 November 2017	
Approved By: S.P. Date: 13 November 2017	
Drawing No.: E09CAM_EXFCD_F1_11	
Map Series: Page 11 of 24	
Drawing Scale: 1:5,000 @A3	

Past Flood Event Local Area Summary Report

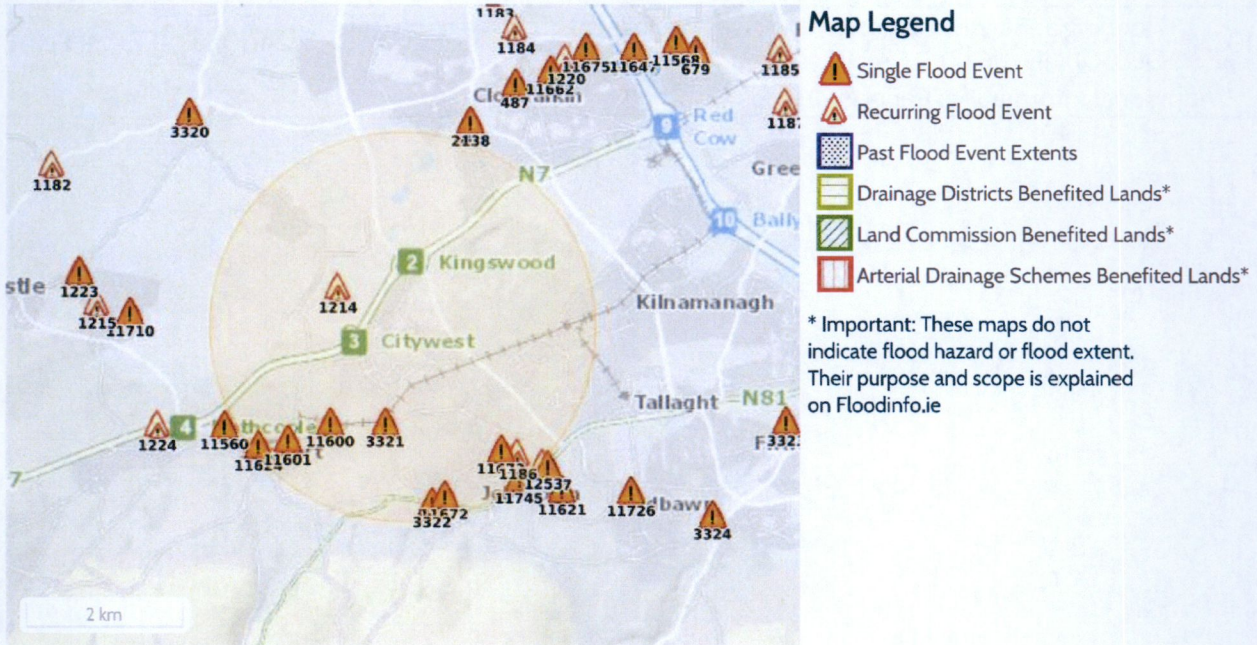


OPW Oifig na nOibreacha Poiblí
Office of Public Works

Report Produced: 14/2/2022 14:24

This Past Flood Event Summary Report summarises all past flood events within 2.5 kilometres of the map centre.

This report has been downloaded from www.floodinfo.ie (the "Website"). The users should take account of the restrictions and limitations relating to the content and use of the Website that are explained in the Terms and Conditions. It is a condition of use of the Website that you agree to be bound by the disclaimer and other terms and conditions set out on the Website and to the privacy policy on the Website.



10 Results

Name (Flood_ID)	Start Date	Event Location
1. Killinarden Stream Jobstown recurring (ID-1186) Additional Information: Reports (2) Press Archive (1)	n/a	Approximate Point
2. Baldonnell Barneys Lane Recurring (ID-1214) Additional Information: Reports (2) Press Archive (0)	n/a	Approximate Point
3. Jobstown N81 Nov 2000 (ID-3322) Additional Information: Reports (1) Press Archive (2)	05/11/2000	Approximate Point
4. Flooding at Blessington Road, Tallaght, Dublin 24 on 1st May 2012 (ID-11745) Additional Information: Reports (1) Press Archive (0)	05/01/2012	Exact Point
5. Fortunestown Lane Nov 2000 (ID-3321) Additional Information: Reports (1) Press Archive (0)	06/11/2000	Approximate Point
6. Flooding at Fortunestown Lane, Citywest, Co. Dublin on 24th Oct 2011 (ID-11600) Additional Information: Reports (1) Press Archive (0)	24/10/2011	Approximate Point

Name (Flood_ID)	Start Date	Event Location
7.  Flooding at Garter Lane, Saggart, Co. Dublin on 24th Oct 2011 (ID-11601) Additional Information: Reports (1) , Press Archive (0)	24/10/2011	Approximate Point
8.  Flooding at Mill Road, Saggart, Co. Dublin on 24th Oct 2011 (ID-11624) Additional Information: Reports (1) , Press Archive (0)	24/10/2011	Approximate Point
9.  Flooding at Belfry Drive/De Selby Park, Dublin 24on 24th Oct 2011 (ID-11672) Additional Information: Reports (1) , Press Archive (0)	24/10/2011	Exact Point
10.  Flooding at Bawnlea Crescent and Avenue, Tallaght, Co. Dublin on 24th Oct 2011 (ID-11673) Additional Information: Reports (1) , Press Archive (0)	24/10/2011	Exact Point