



Engineering Service Report

Steeven's Lane 110kV Substation

The Electricity Supply Board (ESB)

July 2026

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Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Status
27057	27057-ZZ-ZZZ-RP-MWP-EN-6009	P01	20.07.2026	SM	IB	IB	Final

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1. Introduction

This Design Basis Statement relates to the proposed construction of the Steeven's Lane 110 kV/MV Gas Insulated Switchgear (GIS) Substation in Dublin 8. MWP has been appointed by the Electricity Supply Board (ESB) to design the civil engineering works associated with the substation building and compound.

The proposed development comprises a new 110 kV loop-in/loop-out electricity substation within the Diageo Complex.

1.1 Site Location and Context

The proposed development site is situated on currently unoccupied lands owned by Diageo, which immediately adjoin to the west of the Diageo Guinness Brewery at James's Street.

The site is a brownfield area comprising vacant and derelict buildings and a yard accessed via three access points on Steeven's Lane, crossing the Luas (Red Line).

To the south, the proposed development site is bordered by mixed-used and residential properties, including 132-134 James's Street and Steevens Gate Apartments. A retaining wall runs along the northern boundary and partially along the east, which is also adjacent to Steeven's Lane Apartments. Steeven's Lane borders the western boundary of the site. The lane is primarily used by cyclist, pedestrians and the Luas Red Line, with vehicle access limited to site and St Patrick's University hospital, which is located on the opposite side of Steeven's Lane.

The approximate latitude and longitude co-ordinates for the site are 53.343961, -6.2909912. The site location within the greater Dublin area is shown in **Figure 1** below.

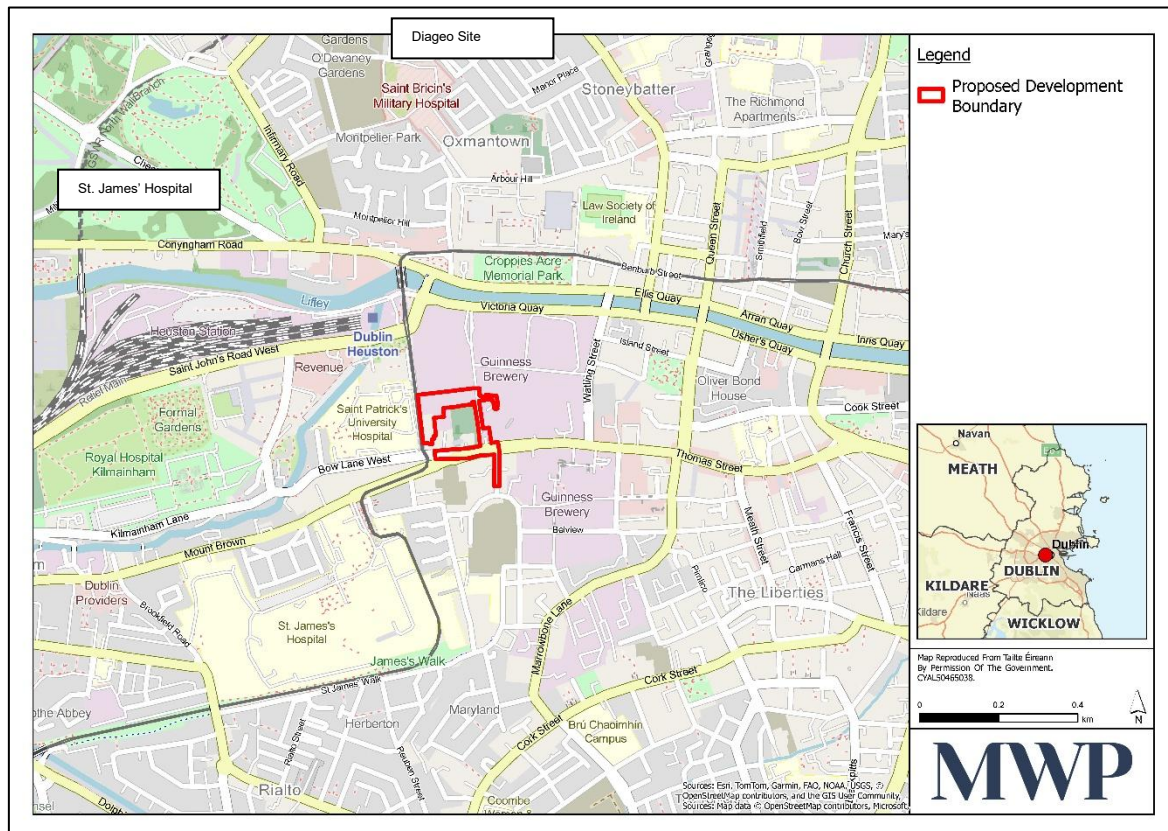


Figure 1: Site Location

1.2 Description of the Proposed Development

The Proposed Development will consist of a 110 kV / MV electrical substation and will include the following elements:

- Demolition of all existing buildings on site including a former office building, warehouse and storage shed;
- The construction of 110 kV / MV substation compound with the following electrical plant within the substation:
 - A two storey 110 kV / MV Gas Insulated Switchgear (GIS) building (c. 559 m²; 14.1 m in height);
 - Two banded 110 kV / MV transformers in transformer bays (c. 5.75 m in height) and surrounding fire walls (c.6.1 m high) and associated electrical equipment;
 - All associated and ancillary site development and infrastructural works, including site clearance, demolition of existing western boundary wall and gates, provision of new boundary treatments and gates along the western site boundary, replacement of the existing retaining wall along the northern and northeastern site boundary, provision of new boundary treatments along the southern and south eastern site boundary, site services including electrical circuits, lighting, telecommunications and drainage.

The installation of six 110kV underground cables (UGC) circuits connecting the proposed Steeven's Lane 110kV substation to key locations, including:

- Loop-in connection joint bays on the existing Francis Street – Heuston Square 110kV circuit at Bow Lane West and Echlin Street / James's Street;
- Diageo's 110kV substation (subject to a separate and future consenting process); and
- Ducting for future use to be terminated in joint bays at St James's Gate Medical car park, north of James' Street.

The combined total length of the circuits is approximately 1.5 km, and they will be installed as either double or single circuits.

The installation of 14 circuit MV UGC between the proposed substation and new joint bays at St James's Gate Medical car park, north of James' Street.

Figure 2 shows the Proposed Development footprint and illustrates the positions of the Proposed Development components and infrastructure within the development boundary.

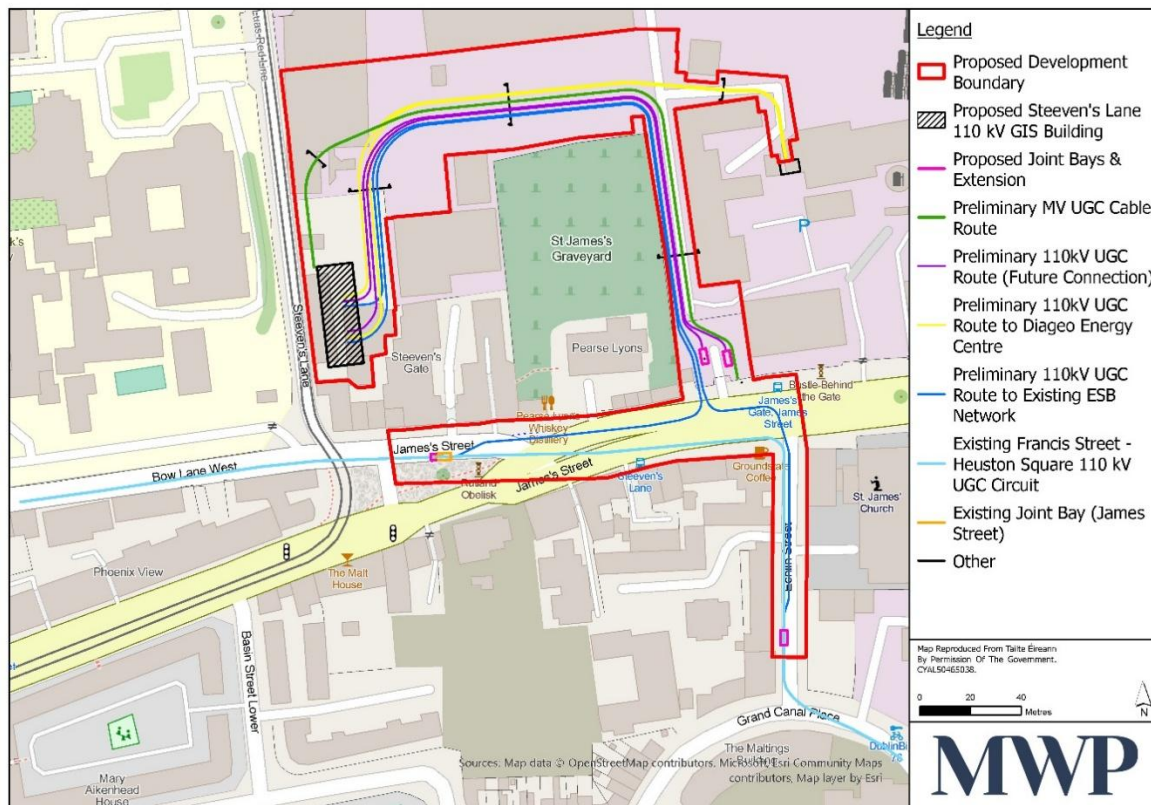


Figure 2: Proposed Development Site Boundary

2. Surface Water

2.1 Existing Surface Water Drainage

The existing surface water drainage within the site forms part of a combined drainage system. Surface water runoff is collected via downpipes and rainwater gullies and is conveyed with foul flows to an existing Uisce Éireann combined manhole on Steeven's Lane.

GPR Surveys were carried out and referenced with existing Uisce Eireann network information. These confirmed an existing 100mm pipe connecting from the site to an existing manhole on Steeven's Lane. A further CCTV survey was carried out by USSR limited to assess the condition of this pipe. The survey indicated some textile within the pipe which would require removal but there were no major structural condition issues observed.

Refer to Appendix E for CCTV survey report.

2.2 Proposed Surface Water Drainage

The surface water drainage proposals have been developed to reduce the peak discharge currently entering the combined sewer on Steeven's Lane. A hydrobrake is proposed to restrict surface water runoff to a maximum discharge rate of 2 l/s.

Due to spatial constraints within the site, conventional attenuation measures such as attenuation tanks were not considered viable. Accordingly, attenuation is proposed via a permeable paving system with an underlying stone

sub-base to provide stormwater storage. Proposed drainage layout 27057-00-DTM-DR-MWP-CE-2100 is attached in Appendix A.

2.2.1 Design Parameters

Pipes and structures are designed with the below parameters;

- Self-cleansing of pipes achieved in the 1-year return period
- No pipe surcharging in the 30-year return period
- No flooding of pipes or structures in the 100-year return period
- 20% climate change allowance is applied to all above design parameters

2.2.2 Sustainable Urban Drainage Systems (SuDS) Statement

Surface water drainage systems developed in line with the ideals of sustainable development are collectively referred to as Sustainable Drainage Systems (SuDS). Appropriately designed, constructed and maintained SuDS are more sustainable than conventional drainage methods because they can mitigate many of the adverse effects of urban storm water runoff on the environment. They can achieve this through:

- Reducing runoff rates, thus reducing the risk of downstream flooding
- Reducing the additional runoff volumes and runoff frequencies that tend to be increased as a result of urbanisation, and which can exacerbate flood risk and damage receiving water quality
- Encouraging natural groundwater recharge (where appropriate) to minimise the impacts on aquifers and river baseflows in the receiving catchment
- Reducing pollutant concentrations in storm water, thus protecting the quality of the receiving water body
- Acting as a buffer for accidental spills by preventing direct discharge of high concentrations of contaminants to the receiving water body
- Reducing the volume of surface water runoff discharging to combined sewer systems, thus reducing discharges of polluted water to watercourses via Combined Sewer Overflow (CSO) spills
- Contributing to the enhanced amenity and aesthetic value of developed areas
- Providing habitats for wildlife in urban areas and opportunities for biodiversity enhancement

All new surface water drainage associated with the development will be designed and constructed in accordance with Sustainable Urban Drainage Systems (SuDS) principles, which seek to replicate, as far as practicable, the natural drainage characteristics of an undeveloped catchment, in accordance with national and local policy.

The site stormwater drainage design has been developed in compliance with SuDS requirements. While the original design intent was to incorporate infiltration to reduce loading on the public drainage network and promote groundwater recharge, site investigations have identified underlying contaminated strata, rendering infiltration unsuitable and potentially detrimental to groundwater quality. Accordingly, surface water discharge to the existing public drainage system is required; however, this will be restricted to a controlled discharge rate of 2 l/s.

2.2.3 SuDS Hierarchy Selection

The recommended SuDS methods including nature based solutions are discussed as follows with a commentary on their suitability, or not, for this specific site.

SuDS Measures	Measures to be used on Site	Rational for selecting/not selecting measures including discharge rate applied with supporting calculations
Permeable Paving	Proposed within the development for trafficked surfacing.	Most applicable selection choice within the project constraints. Allows for capture, conveyance and storage of surface water runoff.
Bio Retention Planter	N/A	Due to constraints with the development size and type. Would create a potential fire and operational hazard
Green Roof/Blue Roof	N/A	Building structure type and requirements does not support the ability to utilise green or blue roofs. Refer to Appendix F
Rain Garden	N/A	Due to space constraints within the site rain gardens are not deemed to be viable
Soakaways	N/A	Site investigations have been carried out on the site and indicate that the underlying soil is contaminated. Utilising infiltration would cause a risk of contamination to the groundatwer below.
Rain Water Harvesting	N/A	Rainwater harvesting has no viable use within the development due to the low frequency of occupants using the site.

Table 1 SuDS Selection Hierarchy Sheet

2.3 Pillars of SuDS

The four pillars of SuDS as defined in Ciria 753 SuDS manual are achieved in this development as described in the following sections.

2.3.1 Water Quantity

This relates to the control of the quantity of water runoff to support the management of flood risk as well as maintaining the natural water cycle. This is achieved in this development due to the limited increase to hard standing on the site which will help maintain the natural flow of the water on the development. With a negligible increase to hard standing area there is a limited risk to flooding.

Greenfield runoff rate calculations have been carried out indicating an allowable discharge of 1.5l/s. As part of ensuring practical operability and reliability due to the size of orifice at this rate being susceptible to blockage the utilised discharge will be 2l/s. This outflow has been agreed as part of the Uisce Eireann Confirmation of Feasibility in Appendix C.

2.3.2 Water Quality

This relates to controlling the quality of the run-off from a site to prevent pollution. Water Quality is maintained utilising an Entexol oil sensitive dewatering system. This assures any potential oil contamination is contained within the transformer bund. Permeable paving will assist in filtering any materials or contaminants prior to entering the public drainage network. A sump will be provided upstream of the discharge manhole for further sediment removal.

2.3.3 Amenity

This relates to creating and sustaining better places for people. As this is an electrical substation with no access for the public and not visible to the public amenity design is not considered to be required.

2.3.4 Biodiversity

This relates to creating and sustaining better places for nature. Similar to section 2.3.3 above, due to the nature and requirements of the development there are not considered to be measures which aid biodiversity that are applicable to this site.

2.3.5 Drainage for Building Structures

Drainage from the buildings will be collected via downpipes and discharged into the stone storage layer beneath the permeable paving system. These connections will be designed in accordance with CIRIA C753 guidance and will incorporate appropriate sediment control measures to filter runoff and prevent the ingress of sediment into the stone layer, thereby avoiding blockage of the diffuser system.

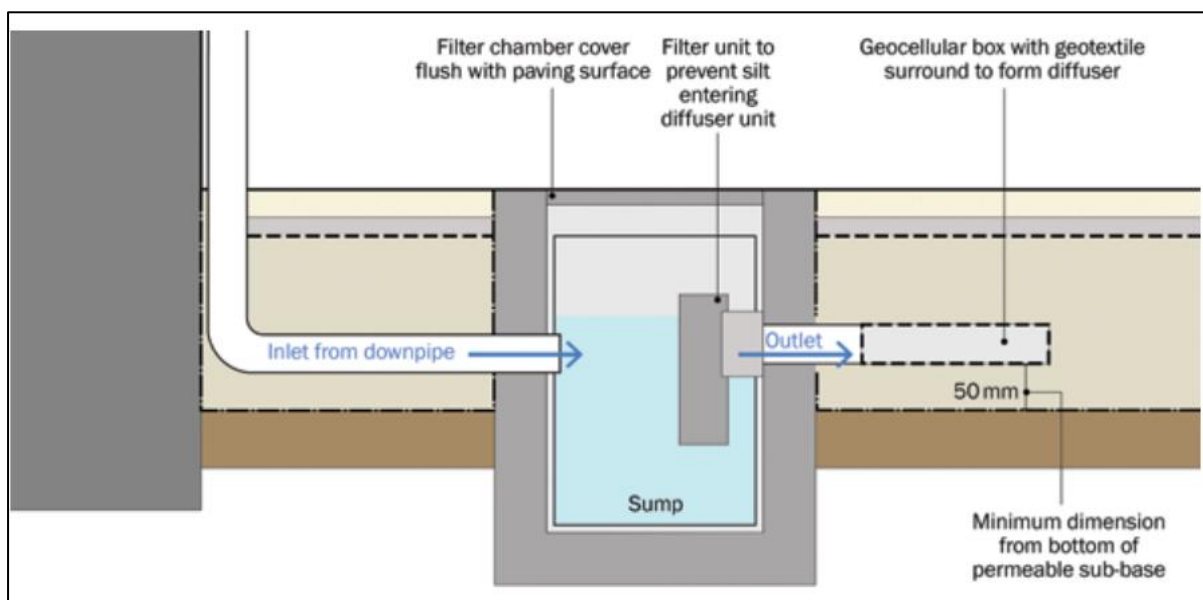


Figure 3: Downpipe connection to stone storage

2.3.6 Drainage for Transformer Bund

The transformer bund is designed to provide a minimum containment capacity of 110% of the transformer oil volume. The bund outlet will incorporate a hydrocarbon-detecting pumped system. Under normal operating conditions, drainage will be pumped to a downstream access chamber. In the event that hydrocarbons are detected, an alarm signal will be transmitted to the site control room and pumping will automatically cease, thereby retaining the contaminated liquid within the bund.

2.3.7 Drainage for Compound

The compound will be surfaced with permeable asphalt paving to allow surface water runoff to drain to an underlying stone storage layer. The base of the stone layer will incorporate an impermeable liner to prevent infiltration. This layer will be laid to a 1% crossfall to ensure that perforated land drains, installed at 8–10 m centres, collect runoff and convey it to the hydrobrake outfall manhole.

Storage requirements were modelled using InfoDrainage software, which indicates that a 650 mm deep stone layer with a porosity of 30% within the designated permeable asphalt areas provides an effective storage volume of 0.195 m³ per square metre (see Figure 3). This capacity is sufficient to accommodate the required stormwater storage for the 1-in-100-year storm event, including a 20% climate change allowance. The InfoDrainage modelling outputs are included in Appendix B.

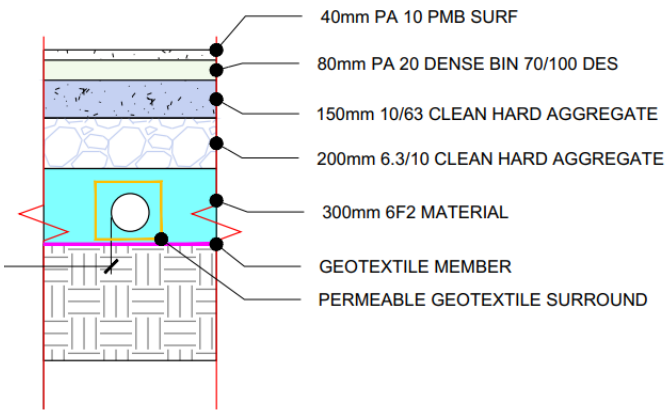


Figure 3 - Permeable Paving Detail

3. Foul Water

3.1 Existing Foul Water Drainage

Existing foul within the site supplies the existing buildings discharging to an existing combined manhole on Steeven's lane. This combined public network conveys the foul discharge to Ringsend WWTP. The internal drainage within the development site is combined throughout.

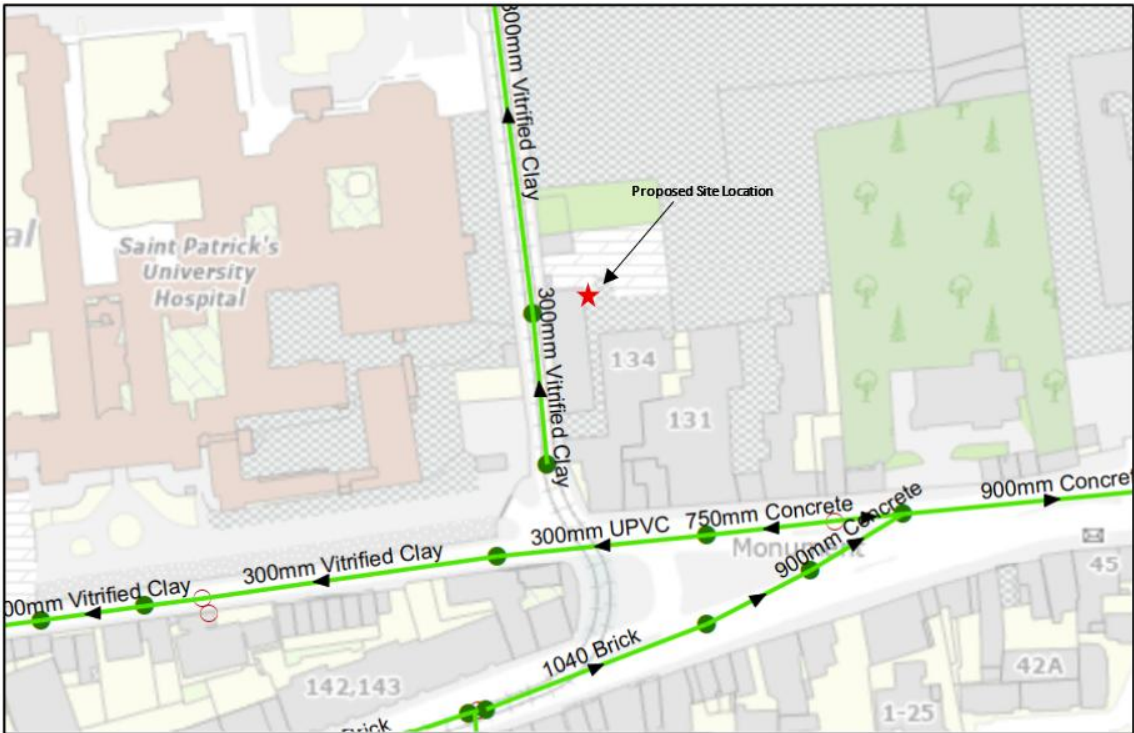


Figure 4: Existing Uisce Eireann Combined Drainage Network

3.2 Proposed Foul Water Drainage

Foul water drainage has been designed to cater for the welfare facilities of the proposed development. Welfare facilities include a single toilet and two wash basins(one within WC and one within mess room) within the GIS building.

While it is typically an unmanned site small quantities of foul waste will be generated.

There will be visits to site for scheduled and unscheduled inspections, maintenance and repairs necessary. A two-person crew visiting site for three days a week would be the most that would be expected on site

Self-flushing toilets are proposed to ensure the water trap in the toilet doesn't dry out through evaporation as a result of lack of use. Self flushing will be arranged to flush automatically twice per week. The station will include one 6 litre flush WC.

Table 1 - Foul Water Loading Calculations

Category	Quantity	Flow Rate(l/person/day)	Daily Flow + 10% Infiltration(l/day)	Peaking Factor	Design Flow(l/s)
Industrial – Part Time	2	45	99	4.5	0.0124
WC	1	6(Per Use)	2.64	4.5	0.0001
Total			101.64		0.0125

An initial Pre-connection enquiry has been submitted to Uisce Eireann under the reference number CDS26002769. Confirmation of feasibility was received indicating the connection to the existing network is feasible without network upgrades required. This is included in Appendix C.

4. Water Supply

4.1 Existing Water Supply

From records there is an existing 50mm Diameter water supply to the site being fed by a 180mm HDPE pipe on Steeven's Lane.

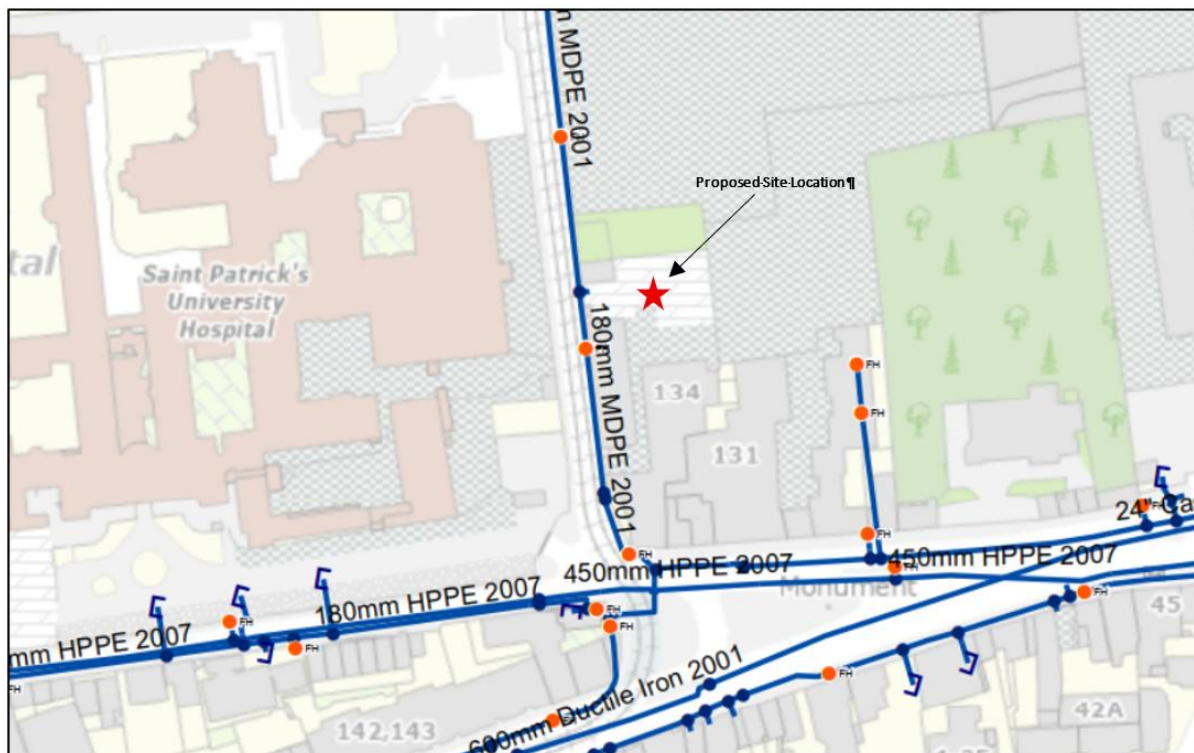


Figure 5: Existing Uisce Éireann Watermain Network

4.2 Proposed Water Supply

Based on the assessed low water demand for the site, as outlined in Section 3 above, the existing 50 mm watermain is sufficient to meet the proposed on-site water requirements. It is proposed to connect to this main to supply the GIS building welfare facilities. All connections, including the provision of water meters and sluice valves, will be designed and installed in accordance with Uisce Éireann's Code of Practice.

An initial Pre-connection enquiry has been submitted to Uisce Éireann under the reference number CDS26002769. Confirmation of feasibility was received indicating the connection to the existing network is feasible without network upgrades required. This is included in Appendix C.

5. Summary

The below summarises the design intent for the proposed water services;

5.1.1 Storm Water

- Storm to be isolated from foul internally until final manhole.
- Pipes designed not to surcharge in 30 year storm (with 20% climate change factor).
- Pipes and structures designed not to flood in 100 year storm (with 20% climate change).
- Oil Sensitive pumps and catchpits utilised in design to maintain water quality.
- Pervious pavement with underdrains to be used to convey and store runoff with a restricted flow rate from the development at 2l/s.

5.1.2 Foul Water

- Foul to be discharged through existing 100mm diameter connection to combined Uisce Eireann System.
- Projected foul discharge from site of 100l/d.
- Pre-conection enquiry has been submitted to Uisce Eireann, Reference number CDS26002769. Confirmation of feasibility has been received under CDS26002769 and is included in Appendix C

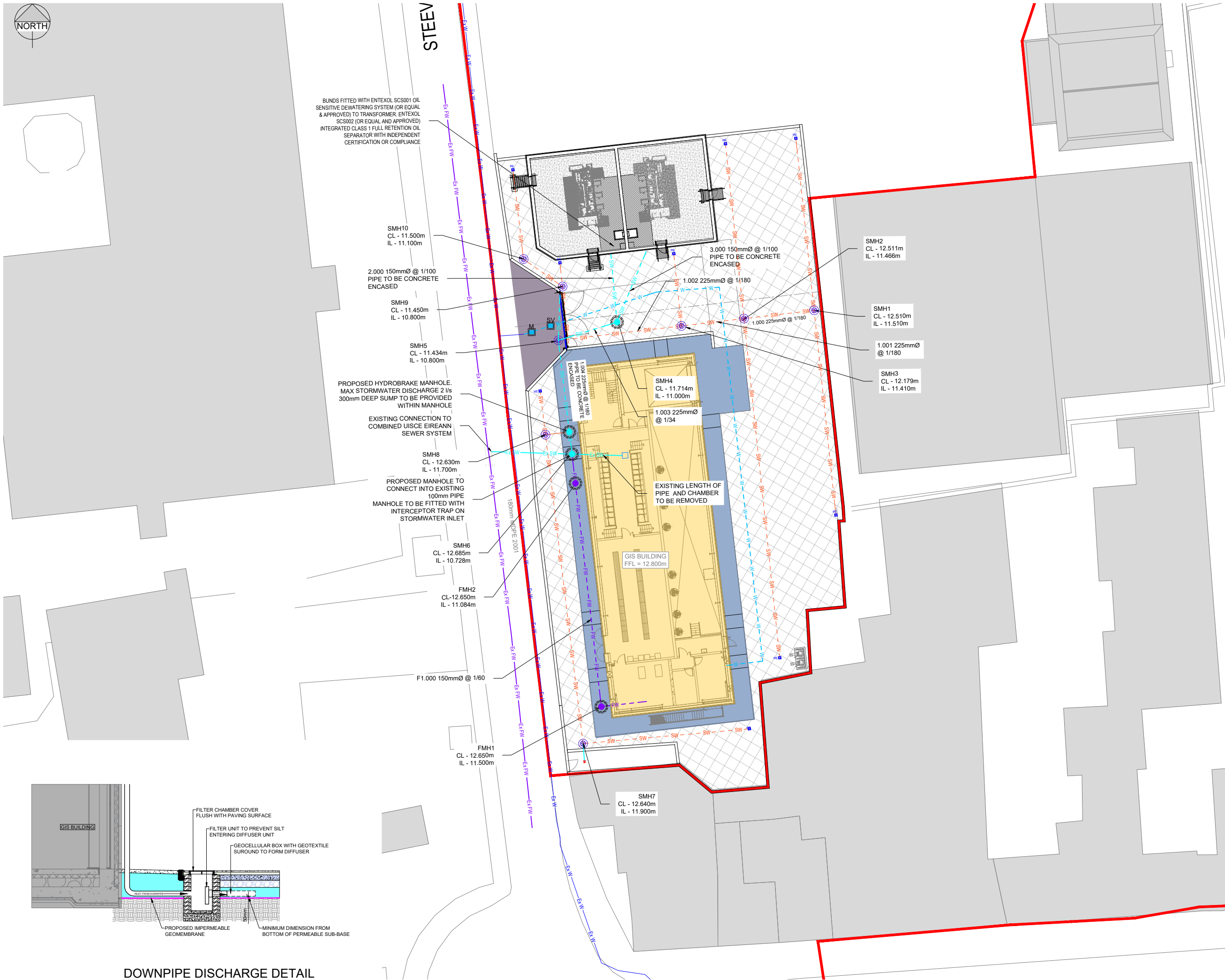
5.1.3 Water Supply

- Site to be supplied from existing 50mm diameter Uisce Eireann connection to site.
- Meters and valves to be added to network based on current Uisce Eireann Code of Practice and standard details.
- Pre-conection enquiry has been submitted to Uisce Eireann, Reference number CDS26002769. Confirmation of feasibility has been received under CDS26002769 and is included in Appendix C.

Appendix A

Drawings

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NOTES

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- ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.
- ANY DISCREPANCIES BETWEEN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- DRAWINGS ARE NOT TO BE SCALED.
- AERIAL IMAGERY, WHEN USED, IS SOURCED FROM MICROSOFT BING MAPS THROUGH THE OPEN LICENSING AGREEMENT WITH AUTODESK.

LEGEND

- PLANNING BOUNDARY
- PROPOSED STORM DRAIN
- PROPOSED 150mmØ PERFORATED STORM DRAIN FALLS AT 1/150 UNO
- PROPOSED FOUL DRAIN
- EXISTING COMBINED UISCE EIREANN
- PROPOSED CHANNEL DRAIN
- EXISTING COMBINED DRAIN
- EXISTING WATERMAIN
- PROPOSED 50mm DIA WATERMAIN
- PROPOSED WATER METER
- PROPOSED SLUICE VALVE
- PROPOSED FOUL MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED ACCESS CHAMBER
- PROPOSED RODDING EYE
- PROPOSED PERMEABLE PAVING
- EXISTING BUILDING
- PROPOSED CONCRETE FOOTPATH
- PROPOSED BUILDING
- PROPOSED ASPHALT ACCESS ROAD
- PROPOSED GULLY

3	21.07.26	ISSUED FOR PLANNING PERMISSION	SM	IB
2	20.06.26	ISSUED FOR INFORMATION	SM	IB
1	27.05.26	ISSUED FOR INFORMATION	SM	IB
REV	DATE	DESCRIPTION	BY	APP

PROJECT: STEEVEN'S LANE 110KV GIS SUBSTATION

TITLE: PROPOSED DRAINAGE AND WATERMAIN LAYOUT

CLIENT: **ESB NETWORKS**

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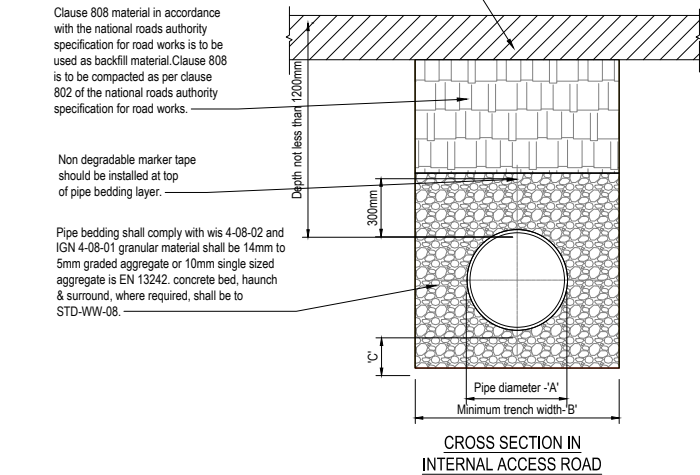
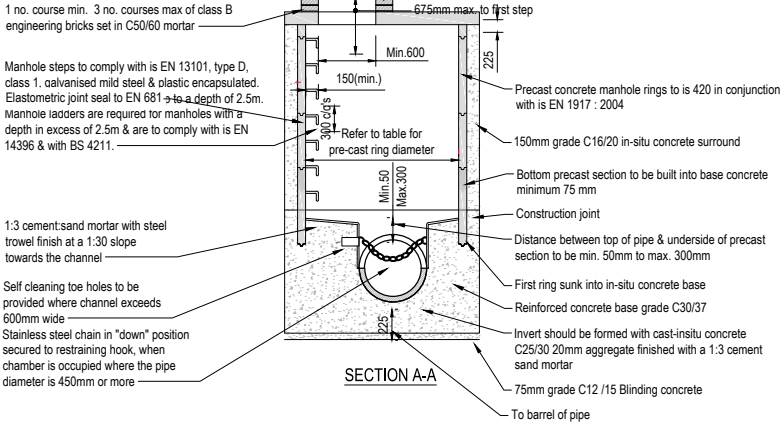
DRAWN: S.M.	CHECKED: B.K.	APPROVED: I.B.
PROJECT NUMBER: 27057	DATE: APR 2026	SCALE @ A1: 1:200
ACCEPTANCE CODE: S	PURPOSE OF ISSUE: ISSUED FOR PLANNING PERMISSION	PURPOSE CODE: P3
DRAWING NUMBER: 27057-00-DTM-DR-MWP-CE-2100		REV: 3

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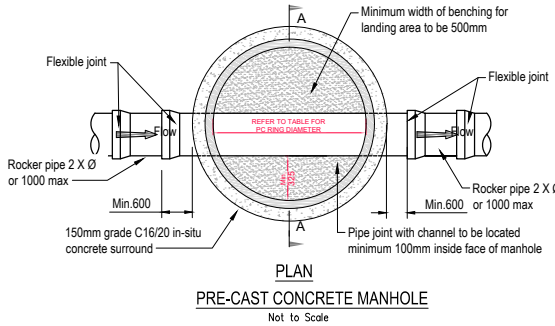
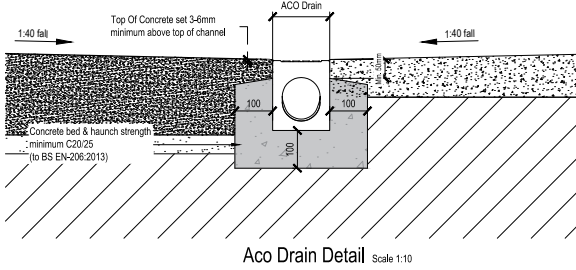
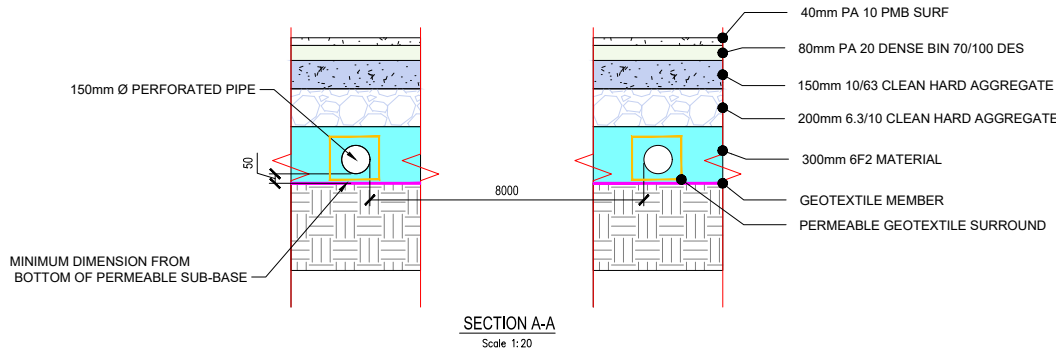
Manhole cover and frame shall comply to is EN 124 and BS 7903 (all class D400 covers shall have min. frame depth 150mm) min. OPE. 600x600mm

Concrete Haunch Surround to All Manhole Covers

Cover to be set as per manufacturer's specification



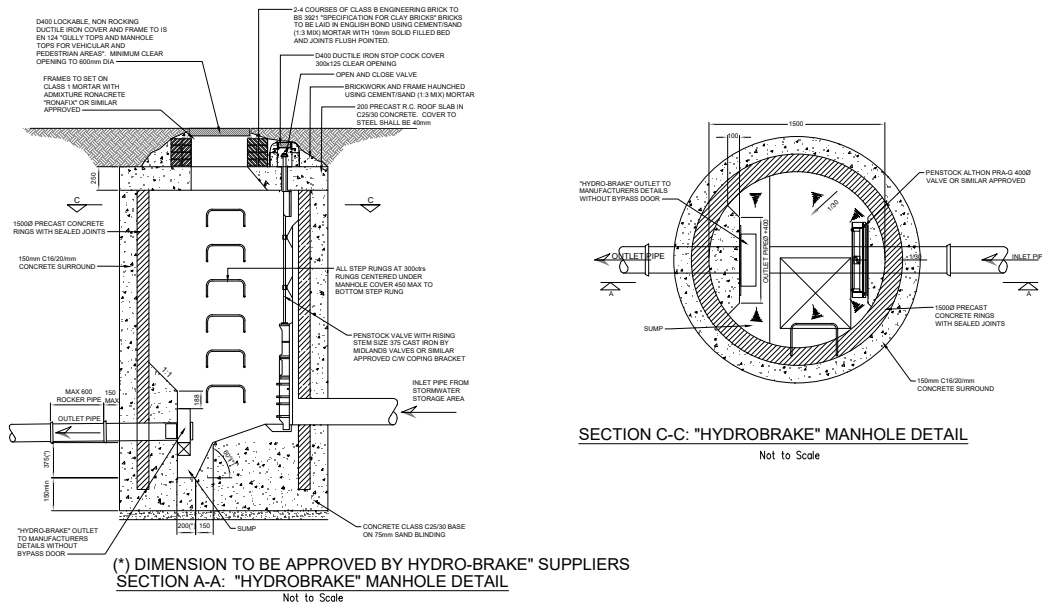
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. CONCRETE PIPE BEDS AND HAUNCHES REQUIRED WHERE MINIMUM COVER IS LESS THAN 1200MM ROAD.
3. CONCRETE PIPE BEDS AND HAUNCHES SHALL HAVE A MINIMUM THICKNESS.
4. CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE CLASS C30/37.
5. THE HAUNCHES AND SURROUNDS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH CAST FINISH.
6. EXPANSION JOINTS IN THE CONCRETE SHALL BE PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR PIPE FLEXIBILITY, COMPRESSIBLE FILLER BOARD TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4, AND TO BE 18mm THICK POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
8. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES



MINIMUM MANHOLE DIAMETERS	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

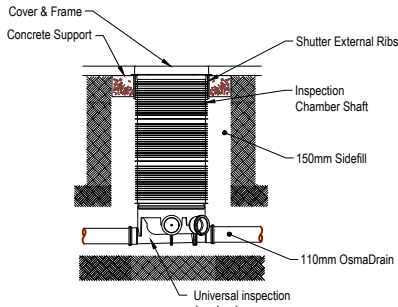
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤100	100
150 - 450	200



(*) DIMENSION TO BE APPROVED BY HYDRO-BRAKE" SUPPLIERS

SECTION A-A: "HYDROBRAKE" MANHOLE DETAIL

Not to Scale



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- NOTES:
1. ALL DETAILS TO BE READ IN CONJUNCTION WITH THE CURRENT IRISH WATER DOCUMENTATION:
 - WASTE WATER INFRASTRUCTURE STANDARD DETAILS.
 - CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
 2. ALL COVERS, GRATINGS & FRAMES IN HARDSTANDING AREAS ARE TO BE A MINIMUM OF CLASS D400 DUCTILE IRON IN ACCORDANCE WITH BS EN 124

2	16.07.26	ISSUED FOR PLANNING PERMISSION	C.M.	I.B.
1	27.05.25	ISSUED FOR INFORMATION	R.H.	I.B.
0	22.04.26	ISSUED FOR INFORMATION	R.H.	I.B.
REV	DATE	DESCRIPTION	BY	APP

PROJECT: STEEVEN'S LANE 110KV GIS SUBSTATION

TITLE: COMPOUND DRAINAGE DETAILS

CLIENT: **ES3 NETWORKS**

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DRAWN: R.H.	CHECKED: S.M.	APPROVED: I.B.
PROJECT NUMBER: 27057	DATE: MAY 2026	SCALE @ A1: AS SHOWN
ACCEPTANCE CODE: S	PURPOSE OF ISSUE: ISSUED FOR PLANNING PERMISSION	PURPOSE CODE: P3
DRAWING NUMBER: 27057-00-DTM-DR-MWP-CE-2400	REV: 2	

Appendix B

Design Calculations

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



Name	Junction Type	Easting (m)	Northing (m)	Cover Elevation (m)	Depth (m)	Invert Elevation (m)	Chamber Shape	Diameter (m)	Lock
6	Manhole	713788.880	733996.058	12.685	1.957	10.728	Circular	1.200	None
5	Manhole	713787.486	734008.858	11.434	0.634	10.800	Circular	1.200	None
8	Manhole	713793.363	734017.242	11.900	0.900	11.000	Circular	1.200	None
4	Manhole	713794.037	734011.002	11.714	0.755	10.959	Circular	1.200	None
Existing MH	Manhole	713779.407	733996.345	11.500	0.825	10.675	Circular	1.200	None
7	Manhole	713793.636	734014.713	11.406	0.422	10.983	Circular	1.200	None
2	Manhole	713808.364	734011.358	12.511	1.177	11.335	Circular	1.200	None
3	Manhole	713798.431	734010.194	12.179	0.769	11.410	Circular	1.200	None
1	Manhole	713816.292	734012.288	12.510	1.000	11.510	Circular	1.200	None

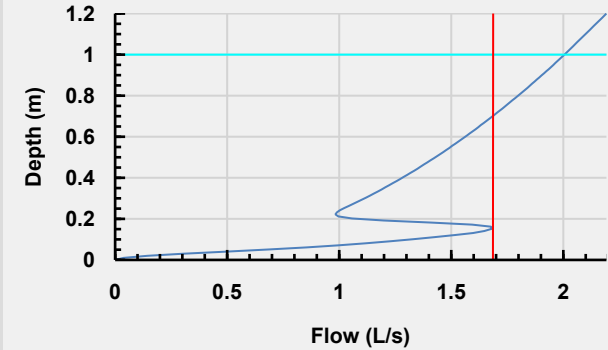
Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
6	Inlet	Porous Paving 4	(None)	No Restriction
	Inlet (1)	1.004	(None)	No Restriction
5	Inlet (1)	1.003	(None)	No Restriction
8	Inlet	Catchment Area	(None)	No Restriction
4	Inlet	2.001	(None)	No Restriction
	Inlet (1)	1.002	(None)	No Restriction
	Inlet (2)	Porous Paving 6	(None)	No Restriction
Existing MH	Inlet	1.005	(None)	No Restriction
7	Inlet	2.000	(None)	No Restriction
2	Inlet	1.000	(None)	No Restriction
	Inlet (1)	Porous Paving 7	(None)	No Restriction
	Inlet (2)	Porous Paving 2	(None)	No Restriction
3	Inlet	1.001	(None)	No Restriction
	Inlet (1)	Porous Paving 5	(None)	No Restriction
1	Inlet	Porous Paving 1	(None)	No Restriction
	Inlet (1)	Porous Paving	(None)	No Restriction

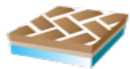
Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
6	Outlet	1.005	Hydro-Brake®
	Invert Elevation (m)	10.728	
	Design Depth (m)	1.000	
	Design Flow (L/s)	2.0	
	Objective	Minimize Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☐	
	Unit Reference	CHE-0064-2000-1000-2000	
			
	Outlet	1.004	Free Discharge
5	Outlet	2.000	Free Discharge
8	Outlet	1.003	Free Discharge
4	Outlet	2.001	Free Discharge
7	Outlet	1.001	Free Discharge
2	Outlet	1.002	Free Discharge
3	Outlet	1.000	Free Discharge
1	Outlet		

Steeven's Lane:	Date: 26/05/2026			
	Designed by: SM	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry			



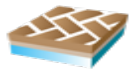
Porous Paving

Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		12.485
Depth (m)		0.970
Base Elevation (m)		11.515
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		5.282
Long. Slope (1:x)		200.00
Width (m)		20.953
Total Volume (m³)		28.222

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



Porous Paving (1)

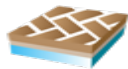
Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		12.485
Depth (m)		0.970
Base Elevation (m)		11.515
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		5.410
Long. Slope (1:x)		200.00
Width (m)		23.345
Total Volume (m³)		32.209

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





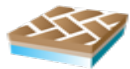
Porous Paving (2)

Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		12.526
Depth (m)		0.970
Base Elevation (m)		11.556
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		8.848
Long. Slope (1:x)		200.00
Width (m)		40.954
Total Volume (m³)		92.399

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026			
	Designed by: SM	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry			



Porous Paving (3)

Type : Porous Paving

Dimensions

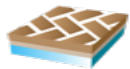
Exceedance Elevation (m)	12.600
Depth (m)	0.970
Base Elevation (m)	11.630
Paving Layer Depth (mm)	120
Membrane Percolation (m/hr)	100000.0
Porosity (%)	30
Length (m)	5.237
Long. Slope (1:x)	200.00
Width (m)	22.569
Total Volume (m³)	30.137

Advanced

Conductivity (m/hr)	500.0
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Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





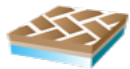
Porous Paving (4)

Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		12.600
Depth (m)		0.970
Base Elevation (m)		11.630
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		37.355
Long. Slope (1:x)		100.00
Width (m)		5.847
Total Volume (m³)		55.699

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026			
	Designed by: SM	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry			



Porous Paving (5)

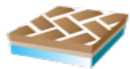
Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		11.900
Depth (m)		0.970
Base Elevation (m)		10.930
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		7.889
Long. Slope (1:x)		200.00
Width (m)		12.347
Total Volume (m³)		24.839

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





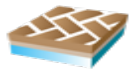
Porous Paving (6)

Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		11.900
Depth (m)		0.970
Base Elevation (m)		10.930
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		9.812
Long. Slope (1:x)		200.00
Width (m)		11.846
Total Volume (m³)		29.639

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026			
	Designed by: SM	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry			



Porous Paving (7)

Type : Porous Paving

Dimensions		
Exceedance Elevation (m)		11.900
Depth (m)		0.970
Base Elevation (m)		10.930
Paving Layer Depth (mm)		120
Membrane Percolation (m/hr)		100000.0
Porosity (%)		30
Length (m)		5.804
Long. Slope (1:x)		200.00
Width (m)		20.981
Total Volume (m³)		31.052

Advanced		
Conductivity (m/hr)		500.0

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



Name	From	To	Length (m)	Connection Type	Slope (1:x)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Curved	Upstream Cover Elevation (m)	Upstream Invert Elevation (m)	Downstream Cover Elevation (m)
2.000	8	7	2.544	Pipe	153.408		0.6	150	☐	11.900	11.000	11.406
1.003	4	5	6.892	Pipe	34.462		0.6	225	☐	11.714	11.000	11.434
1.005	6	Existing MH	9.477	Pipe	180.000		0.6	225	☐	12.685	10.728	11.500
1.000	1	2	7.983	Pipe	180.000		0.6	225	☐	12.510	11.510	12.511
1.001	2	3	10.001	Pipe	180.000		0.6	225	☐	12.511	11.466	12.179
1.002	3	4	4.468	Pipe	10.897		0.6	225	☐	12.179	11.410	11.714
Porous Paving 1	Porous Paving (1)	1	2.486	Pipe	20.716		0.6	150	☐	12.600	11.630	12.510
Porous Paving	Porous Paving	1	2.758	Pipe	22.981		0.6	150	☐	12.600	11.630	12.510
Porous Paving 7	Porous Paving (7)	2	2.218	Pipe	100.000		0.6	150	☐	12.327	11.357	12.511
Porous Paving 5	Porous Paving (5)	3	1.569	Pipe	-3.269		0.6	100	☐	12.119	10.930	12.179
Porous Paving 6	Porous Paving (6)	4	1.779	Pipe	-61.343		0.6	100	☐	11.716	10.930	11.714
Porous Paving 4	Porous Paving (4)	6	1.860	Pipe	100.000		0.6	150	☐	12.621	11.630	12.685
Porous Paving 3	Porous Paving (3)	Porous Paving (4)	2.048	Pipe	-5.483		0.6	100	☐	12.600	11.630	12.600
Porous Paving 2	Porous Paving (2)	2	2.805	Pipe	100.000		0.6	150	☐	12.600	11.630	12.511
1.004	5	6	12.876	Pipe	180.000		0.6	225	☐	11.434	10.800	12.685
2.001	7	4	3.732	Pipe	153.408		0.6	150	☐	11.406	10.983	11.714

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



Name	Downstream Invert Elevation (m)	Part Family	Lock	Flow Restriction (L/s)	Wall Thickness (mm)	Material	Trench Width (mm)	Bedding Material	Surrounding Material
2.000	10.983		All		0		0		
1.003	10.800		All		0		0		
1.005	10.675		All	2.2	0		0		
1.000	11.466		All		0		0		
1.001	11.410		All		0		0		
1.002	11.000		All		0		0		
Porous Paving 1	11.510		All		0		0		
Porous Paving	11.510		All		0		0		
Porous Paving 7	11.335		All		0		0		
Porous Paving 5	11.410		All		0		0		
Porous Paving 6	10.959		All		0		0		
Porous Paving 4	11.611		All		0		0		
Porous Paving 3	12.004		All		0		0		
Porous Paving 2	11.602		All		0		0		
1.004	10.728		All		0		0		
2.001	10.959		All		0		0		

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





FSR: 1 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Elevation (m)	Invert Elevation (m)	Max. Elevation (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
6	FSR: 1 years: +20 %: 15 mins: Summer	12.685	10.728	10.763	0.035	0.3	0.039	0.000	0.2	0.128	OK
5	FSR: 1 years: +20 %: 15 mins: Summer	11.434	10.800	10.814	0.014	0.3	0.016	0.000	0.3	0.180	OK
8	FSR: 1 years: +20 %: 15 mins: Summer	11.900	11.000	11.051	0.051	3.0	0.058	0.000	2.9	1.286	OK
4	FSR: 1 years: +20 %: 15 mins: Summer	11.714	10.959	11.009	0.050	2.8	0.057	0.000	0.3	1.267	OK
Existing MH	FSR: 1 years: +20 %: 15 mins: Summer	11.500	10.675	10.687	0.011	0.2	0.000	0.000	0.2	0.117	OK
7	FSR: 1 years: +20 %: 15 mins: Summer	11.406	10.983	11.032	0.049	2.9	0.055	0.000	2.8	1.256	OK
2	FSR: 1 years: +20 %: 15 mins: Summer	12.511	11.335	11.335	0.000	0.0	0.000	0.000	0.0	0.000	OK
3	FSR: 1 years: +20 %: 15 mins: Summer	12.179	11.410	11.410	0.000	0.0	0.000	0.000	0.0	0.000	OK
1	FSR: 1 years: +20 %: 15 mins: Summer	12.510	11.510	11.510	0.000	0.0	0.000	0.000	0.0	0.000	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





FSR: 30 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Elevation (m)	Invert Elevation (m)	Max. Elevation (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
6	FSR: 30 years: +20 %: 15 mins: Summer	12.685	10.728	11.005	0.277	2.3	0.313	0.000	1.7	1.404	Surcharged
5	FSR: 30 years: +20 %: 15 mins: Summer	11.434	10.800	11.005	0.205	3.4	0.231	0.000	2.3	1.830	OK
8	FSR: 30 years: +20 %: 15 mins: Summer	11.900	11.000	11.082	0.082	6.6	0.092	0.000	6.4	2.861	OK
4	FSR: 30 years: +20 %: 15 mins: Summer	11.714	10.959	11.028	0.069	6.3	0.078	0.000	3.4	3.415	OK
Existing MH	FSR: 30 years: +20 %: 15 mins: Summer	11.500	10.675	10.707	0.032	1.7	0.000	0.000	1.7	1.365	OK
7	FSR: 30 years: +20 %: 15 mins: Summer	11.406	10.983	11.059	0.075	6.4	0.085	0.000	6.3	2.829	OK
2	FSR: 30 years: +20 %: 15 mins: Summer	12.511	11.335	11.335	0.000	0.0	0.000	0.000	0.0	0.000	OK
3	FSR: 30 years: +20 %: 15 mins: Summer	12.179	11.410	11.410	0.000	0.0	0.000	0.000	0.0	0.000	OK
1	FSR: 30 years: +20 %: 15 mins: Summer	12.510	11.510	11.510	0.000	0.0	0.000	0.000	0.0	0.000	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





FSR: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Elevation (m)	Invert Elevation (m)	Max. Elevation (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
6	FSR: 100 years: +20 %: 15 mins: Summer	12.685	10.728	11.053	0.325	3.3	0.367	0.000	1.1	1.414	Surcharged
5	FSR: 100 years: +20 %: 15 mins: Summer	11.434	10.800	11.053	0.253	3.8	0.286	0.000	3.3	2.044	Surcharged
8	FSR: 100 years: +20 %: 15 mins: Summer	11.900	11.000	11.096	0.096	8.6	0.109	0.000	8.4	3.688	OK
4	FSR: 100 years: +20 %: 15 mins: Summer	11.714	10.959	11.053	0.094	8.1	0.106	0.000	3.8	4.166	OK
Existing MH	FSR: 100 years: +20 %: 15 mins: Summer	11.500	10.675	10.701	0.026	1.1	0.000	0.000	1.1	1.384	OK
7	FSR: 100 years: +20 %: 15 mins: Summer	11.406	10.983	11.070	0.087	8.4	0.098	0.000	8.1	3.624	OK
2	FSR: 100 years: +20 %: 15 mins: Summer	12.511	11.335	11.355	0.020	0.1	0.023	0.000	0.0	0.000	OK
3	FSR: 100 years: +20 %: 15 mins: Summer	12.179	11.410	11.410	0.000	0.0	0.000	0.000	0.0	0.000	OK
1	FSR: 100 years: +20 %: 15 mins: Summer	12.510	11.510	11.510	0.000	0.0	0.000	0.000	0.0	0.000	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





FSR: 1 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Elevation (m)	Max. DS Elevation (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Porous Paving	FSR: 1 years: +20 %: 5760 mins: Summer	11.635	11.633	0.094	0.118	0.1	3.526	0.000	0.000	0.1	2.763	87.507	OK
Porous Paving (1)	FSR: 1 years: +20 %: 8640 mins: Summer	11.635	11.634	0.094	0.119	0.1	4.028	0.000	0.000	0.1	4.543	87.493	OK
Porous Paving (2)	FSR: 1 years: +20 %: 480 mins: Winter	11.685	11.653	0.084	0.097	1.3	9.860	0.000	0.000	0.8	9.492	89.329	OK
Porous Paving (3)	FSR: 1 years: +20 %: 10080 mins: Winter	12.020	12.019	0.363	0.389	0.1	13.347	0.000	0.000	0.0	0.551	55.712	OK
Porous Paving (4)	FSR: 1 years: +20 %: 10080 mins: Winter	12.019	11.635	0.015	0.005	0.1	0.946	0.000	0.000	0.0	21.580	98.302	OK
Porous Paving (5)	FSR: 1 years: +20 %: 8640 mins: Winter	11.418	11.417	0.448	0.487	0.2	13.674	0.000	0.000	0.0	2.215	44.951	OK
Porous Paving (6)	FSR: 1 years: +20 %: 600 mins: Winter	11.032	11.013	0.053	0.083	0.2	2.357	0.000	0.000	0.2	2.538	92.049	OK
Porous Paving (7)	FSR: 1 years: +20 %: 4320 mins: Winter	11.485	11.484	0.526	0.554	0.5	19.730	0.000	0.000	0.3	5.020	36.462	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





FSR: 30 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Elevation (m)	Max. DS Elevation (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Porous Paving	FSR: 30 years: +20 %: 600 mins: Winter	11.645	11.639	0.104	0.124	0.4	3.781	0.000	0.000	0.2	2.143	86.604	OK
Porous Paving (1)	FSR: 30 years: +20 %: 600 mins: Winter	11.646	11.639	0.104	0.124	0.5	4.327	0.000	0.000	0.3	2.581	86.565	OK
Porous Paving (2)	FSR: 30 years: +20 %: 180 mins: Winter	11.750	11.674	0.150	0.118	5.2	14.553	0.000	0.000	2.8	15.484	84.250	OK
Porous Paving (3)	FSR: 30 years: +20 %: 2880 mins: Winter	12.067	12.067	0.411	0.437	0.3	15.032	0.000	0.000	0.0	2.233	50.122	OK
Porous Paving (4)	FSR: 30 years: +20 %: 5760 mins: Winter	12.066	11.640	0.062	0.010	0.2	3.362	0.000	0.000	0.1	31.342	93.963	OK
Porous Paving (5)	FSR: 30 years: +20 %: 2160 mins: Winter	11.426	11.424	0.457	0.494	1.0	13.892	0.000	0.000	0.1	2.239	44.071	OK
Porous Paving (6)	FSR: 30 years: +20 %: 120 mins: Winter	11.087	11.091	0.108	0.161	2.0	4.545	0.000	0.000	0.8	3.276	84.665	OK
Porous Paving (7)	FSR: 30 years: +20 %: 720 mins: Winter	11.505	11.504	0.546	0.574	2.6	20.464	0.000	0.000	0.2	2.728	34.097	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		





FSR: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Elevation (m)	Max. DS Elevation (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Porous Paving	FSR: 100 years: +20 %: 360 mins: Winter	11.652	11.641	0.111	0.127	0.7	3.943	0.000	0.000	0.4	2.549	86.028	OK
Porous Paving (1)	FSR: 100 years: +20 %: 360 mins: Winter	11.653	11.642	0.112	0.127	0.8	4.522	0.000	0.000	0.5	3.076	85.962	OK
Porous Paving (2)	FSR: 100 years: +20 %: 120 mins: Winter	11.784	11.685	0.183	0.129	8.7	16.981	0.000	0.000	4.2	17.459	81.622	OK
Porous Paving (3)	FSR: 100 years: +20 %: 2160 mins: Winter	12.099	12.099	0.443	0.469	0.5	16.166	0.000	0.000	0.1	3.368	46.357	OK
Porous Paving (4)	FSR: 100 years: +20 %: 2880 mins: Winter	12.098	11.642	0.094	0.012	0.4	4.789	0.000	0.000	0.2	32.059	91.401	OK
Porous Paving (5)	FSR: 100 years: +20 %: 1440 mins: Winter	11.429	11.427	0.460	0.497	1.6	13.982	0.000	0.000	0.2	2.648	43.710	OK
Porous Paving (6)	FSR: 100 years: +20 %: 1440 mins: Winter	11.323	11.322	0.344	0.392	1.3	12.818	0.000	0.000	0.5	16.459	56.752	OK
Porous Paving (7)	FSR: 100 years: +20 %: 480 mins: Winter	11.517	11.515	0.558	0.585	4.3	20.878	0.000	0.000	0.4	3.287	32.763	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



FSR: 1 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Elevation (m)	Max. US Water Elevation (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
2.000	FSR: 1 years: +20 %: 15 mins: Winter	Pipe	8	7	11.900	11.053	0.052	1.444	0.6	0.21	3.0	OK
1.003	FSR: 1 years: +20 %: 60 mins: Winter	Pipe	4	5	11.714	11.021	0.036	2.030	0.6	0.02	1.7	OK
1.005	FSR: 1 years: +20 %: 60 mins: Winter	Pipe	6	Existing MH	12.685	10.854	0.028	1.995	0.4	0.03	1.3	OK
1.000	FSR: 1 years: +20 %: 4320 mins: Winter	Pipe	1	2	12.510	11.519	0.013	5.023	0.2	0	0.1	OK
1.001	FSR: 1 years: +20 %: 4320 mins: Winter	Pipe	2	3	12.511	11.484	0.012	20.211	0.5	0.01	0.4	OK
1.002	FSR: 1 years: +20 %: 8640 mins: Winter	Pipe	3	4	12.179	11.417	0.009	30.694	0.5	0	0.3	OK
Porous Paving 1	FSR: 1 years: +20 %: 8640 mins: Summer	Pipe	Porous Paving (1)	1	12.600	11.621	0.006	4.543	0.3	0	0.1	OK
Porous Paving	FSR: 1 years: +20 %: 5760 mins: Summer	Pipe	Porous Paving	1	12.600	11.621	0.006	2.763	0.2	0	0.1	OK
Porous Paving 7	FSR: 1 years: +20 %: 8640 mins: Winter	Pipe	Porous Paving (7)	2	12.327	11.468	0.136	0.000	0.0	0.02	0.4	OK
Porous Paving 5	FSR: 1 years: +20 %: 5760 mins: Winter	Pipe	Porous Paving (5)	3	12.119	11.397	0.100	9.196	0.0	0	0.0	Surcharge d
Porous Paving 6	FSR: 1 years: +20 %: 60 mins: Summer	Pipe	Porous Paving (6)	4	11.716	10.989	0.076	1.159	0.1	0.08	0.4	OK
Porous Paving 4	FSR: 1 years: +20 %: 10080 mins: Winter	Pipe	Porous Paving (4)	6	12.621	11.644	0.005	8.230	0.2	0	0.0	OK
Porous Paving 3	FSR: 1 years: +20 %: 7200 mins: Summer	Pipe	Porous Paving (3)	Porous Paving (4)	12.600	11.998	0.100	13.059	0.0	0	0.0	Surcharge d
Porous Paving 2	FSR: 1 years: +20 %: 480 mins: Winter	Pipe	Porous Paving (2)	2	12.600	11.647	0.022	9.492	0.5	0.05	0.8	OK
1.004	FSR: 1 years: +20 %: 120 mins: Summer	Pipe	5	6	11.434	10.852	0.087	2.744	0.4	0.04	1.6	OK
2.001	FSR: 1 years: +20 %: 15 mins: Winter	Pipe	7	4	11.406	11.034	0.049	1.413	0.6	0.2	2.9	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



FSR: 30 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Elevation (m)	Max. US Water Elevation (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
2.000	FSR: 30 years: +20 %: 15 mins: Winter	Pipe	8	7	11.900	11.084	0.081	3.205	0.7	0.47	6.8	OK
1.003	FSR: 30 years: +20 %: 30 mins: Winter	Pipe	4	5	11.714	11.070	0.170	4.002	0.6	0.07	5.9	OK
1.005	FSR: 30 years: +20 %: 360 mins: Summer	Pipe	6	Existing MH	12.685	11.037	0.032	15.089	0.5	0.04	1.7	Surcharged
1.000	FSR: 30 years: +20 %: 600 mins: Winter	Pipe	1	2	12.510	11.529	0.027	4.718	0.3	0.01	0.5	OK
1.001	FSR: 30 years: +20 %: 720 mins: Winter	Pipe	2	3	12.511	11.504	0.025	21.697	0.9	0.05	2.1	OK
1.002	FSR: 30 years: +20 %: 2160 mins: Winter	Pipe	3	4	12.179	11.424	0.017	36.724	0.9	0.01	1.2	OK
Porous Paving 1	FSR: 30 years: +20 %: 600 mins: Winter	Pipe	Porous Paving (1)	1	12.600	11.629	0.014	2.581	0.3	0.01	0.3	OK
Porous Paving	FSR: 30 years: +20 %: 600 mins: Winter	Pipe	Porous Paving	1	12.600	11.629	0.014	2.143	0.3	0.01	0.2	OK
Porous Paving 7	FSR: 30 years: +20 %: 8640 mins: Winter	Pipe	Porous Paving (7)	2	12.327	11.472	0.141	0.000	0.0	0.02	0.4	OK
Porous Paving 5	FSR: 30 years: +20 %: 2160 mins: Winter	Pipe	Porous Paving (5)	3	12.119	11.405	0.100	9.148	0.0	0.02	0.1	Surcharged
Porous Paving 6	FSR: 30 years: +20 %: 15 mins: Winter	Pipe	Porous Paving (6)	4	11.716	11.004	0.087	1.089	0.2	0.25	1.4	OK
Porous Paving 4	FSR: 30 years: +20 %: 5760 mins: Winter	Pipe	Porous Paving (4)	6	12.621	11.681	0.010	16.341	0.3	0.01	0.1	OK
Porous Paving 3	FSR: 30 years: +20 %: 1440 mins: Winter	Pipe	Porous Paving (3)	Porous Paving (4)	12.600	12.041	0.100	14.576	0.0	0.01	0.1	Surcharged
Porous Paving 2	FSR: 30 years: +20 %: 180 mins: Winter	Pipe	Porous Paving (2)	2	12.600	11.690	0.042	15.484	0.7	0.16	2.8	OK
1.004	FSR: 30 years: +20 %: 30 mins: Summer	Pipe	5	6	11.434	11.051	0.225	3.338	0.5	0.08	3.2	Surcharged
2.001	FSR: 30 years: +20 %: 15 mins: Winter	Pipe	7	4	11.406	11.061	0.072	3.167	0.8	0.46	6.6	OK

Steeven's Lane:	Date: 26/05/2026		
	Designed by: SM	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	MWP: Reen Point Blennerville Co.Kerry		



FSR: 100 years: Increase Rainfall (%): +20: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Elevation (m)	Max. US Water Elevation (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
2.000	FSR: 100 years: +20 %: 15 mins: Winter	Pipe	8	7	11.900	11.099	0.095	4.112	0.7	0.61	8.8	OK
1.003	FSR: 100 years: +20 %: 60 mins: Winter	Pipe	4	5	11.714	11.150	0.225	7.956	0.8	0.06	5.5	OK
1.005	FSR: 100 years: +20 %: 2880 mins: Winter	Pipe	6	Existing MH	12.685	11.267	0.032	115.162	0.5	0.04	1.7	Surcharged
1.000	FSR: 100 years: +20 %: 360 mins: Winter	Pipe	1	2	12.510	11.535	0.035	5.615	0.4	0.02	0.9	OK
1.001	FSR: 100 years: +20 %: 480 mins: Winter	Pipe	2	3	12.511	11.515	0.032	27.546	1.0	0.09	3.6	OK
1.002	FSR: 100 years: +20 %: 960 mins: Winter	Pipe	3	4	12.179	11.427	0.155	34.159	0.8	0.01	2.3	OK
Porous Paving 1	FSR: 100 years: +20 %: 360 mins: Winter	Pipe	Porous Paving (1)	1	12.600	11.634	0.019	3.076	0.4	0.01	0.5	OK
Porous Paving	FSR: 100 years: +20 %: 360 mins: Winter	Pipe	Porous Paving	1	12.600	11.634	0.018	2.549	0.4	0.01	0.4	OK
Porous Paving 7	FSR: 100 years: +20 %: 480 mins: Winter	Pipe	Porous Paving (7)	2	12.327	11.501	0.150	0.000	0.0	0.02	0.4	OK
Porous Paving 5	FSR: 100 years: +20 %: 2160 mins: Winter	Pipe	Porous Paving (5)	3	12.119	11.408	0.100	9.030	0.0	0.03	0.2	Surcharged
Porous Paving 6	FSR: 100 years: +20 %: 120 mins: Winter	Pipe	Porous Paving (6)	4	11.716	11.117	0.100	2.331	0.1	0.15	0.9	Surcharged
Porous Paving 4	FSR: 100 years: +20 %: 2880 mins: Winter	Pipe	Porous Paving (4)	6	12.621	11.703	0.012	15.910	0.3	0.01	0.2	OK
Porous Paving 3	FSR: 100 years: +20 %: 720 mins: Winter	Pipe	Porous Paving (3)	Porous Paving (4)	12.600	12.062	0.100	15.300	0.0	0.02	0.1	Surcharged
Porous Paving 2	FSR: 100 years: +20 %: 120 mins: Winter	Pipe	Porous Paving (2)	2	12.600	11.713	0.052	17.459	0.8	0.24	4.2	OK
1.004	FSR: 100 years: +20 %: 60 mins: Summer	Pipe	5	6	11.434	11.128	0.225	6.913	0.5	0.09	3.4	Surcharged
2.001	FSR: 100 years: +20 %: 15 mins: Winter	Pipe	7	4	11.406	11.073	0.100	4.021	0.9	0.6	8.5	OK

Appendix C

Confirmation of Feasibility

CONFIRMATION OF FEASIBILITY

Stephen Moriarty

MWP
Reen Point
Blennerville
Tralee
Co. Kerry
V92X2TK

27 April 2026

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

**Our Ref: CDS26002769 Pre-Connection Enquiry
Steevens House, Steevens Lane, Dublin 8, Dublin**

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Business Connection of 1 unit(s) at Steevens House, Steevens Lane, Dublin 8, Dublin, (the **Development**).

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible without infrastructure upgrade by Uisce Éireann
- **Wastewater Connection** - Feasible without infrastructure upgrade by Uisce Éireann
- The Development must incorporate Sustainable Drainage Systems/ Attenuation in the management of storm water and to reduce surface water inflow into the receiving combined sewer. Full details of these have to be agreed with the LA Drainage Division.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Uisce Éireann infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Uisce Éireann.

Stiúrthóirí / Directors: Jerry Grant (Cathaoirleach / Chairperson), Niall Gleeson (POF / CEO), Douglas Millican, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Michael Walsh, Rena O'Sullivan and Orlagh Nevin.

Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86

Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Uisce Éireann is a designated activity company, limited by shares.

Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

- **Section A** - What is important to know?
- **Section B** - Details of Uisce Éireann's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Uisce Éireann's network(s). This is not a connection offer and capacity in Uisce Éireann's network(s) may only be secured by entering into a connection agreement with Uisce Éireann.

For any further information, visit www.water.ie/connections, email newconnections@water.ie or contact 1800 278 278.

Yours sincerely,



Dermot Phelan
Connections and Developer Services

Section A - What is important to know?

What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Uisce Éireann's network(s). • Before the Development can connect to Uisce Éireann's network(s), you must submit a connection application <u>and be granted and sign</u> a connection agreement with Uisce Éireann.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Uisce Éireann connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Uisce Éireann's network(s), including works in the public space, must be carried out by Uisce Éireann*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • What to do? - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • What to do? - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Uisce Éireann's network(s)?	• Requests for maps showing Uisce Éireann's network(s) can be submitted to: datarequests@water.ie

What are the design requirements for the connection(s)?	The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with <i>the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice</i>, available at www.water.ie/connections
Trade Effluent Licensing	- Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). - More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

datarequests@water.ie

Whilst every care has been taken in respect of the information on Uisce Éireann's network(s), Uisce Éireann assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Uisce Éireann's underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Uisce Éireann's underground network(s) is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

Appendix D

Greenfield Runoff Calculations

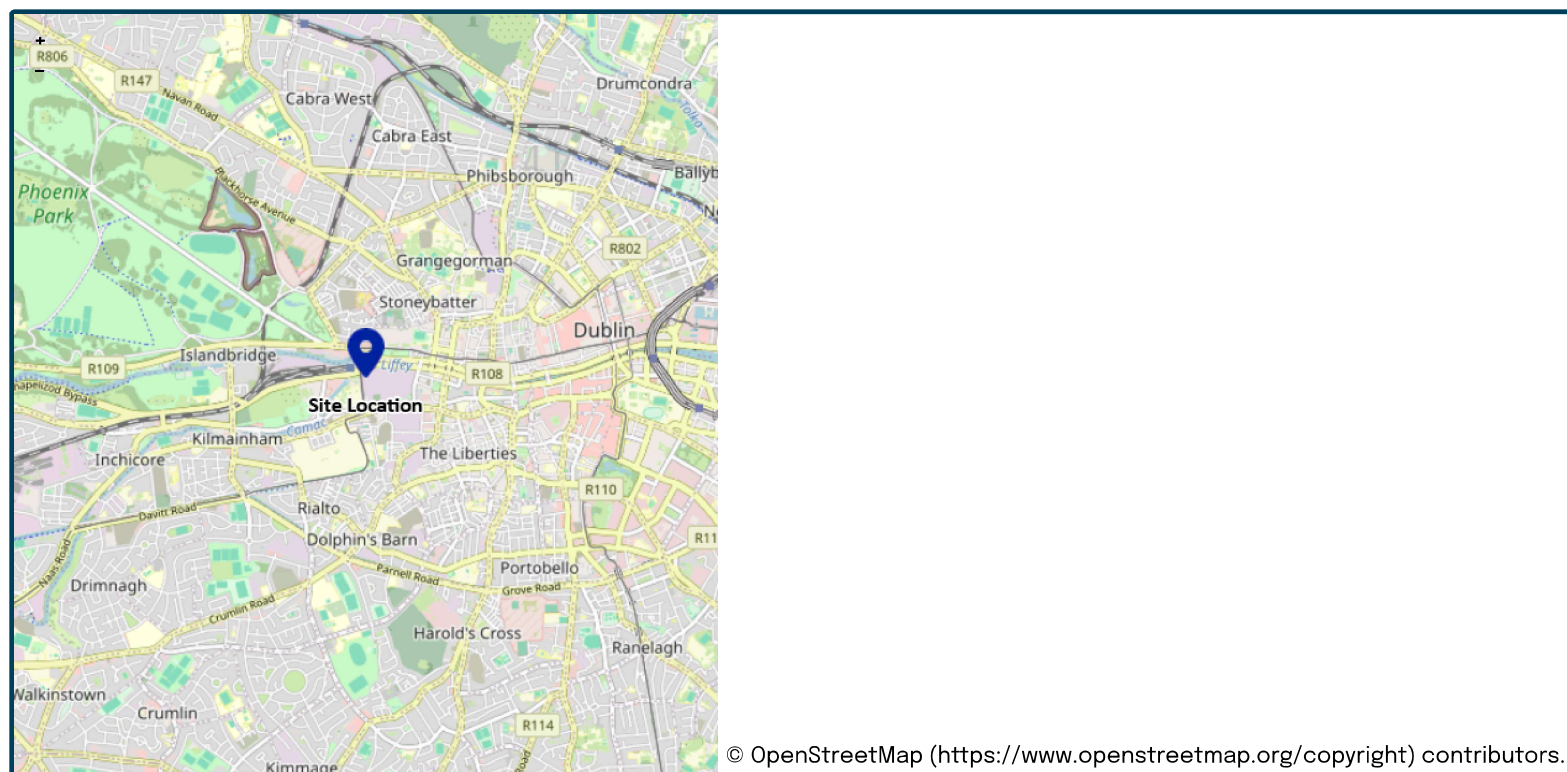
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	01/05/2026
Calculated by	SM
Reference	27057
Model version	2.2.3

Location

Site name	Steeven's Lane
Site location	Dublin 8



Site easting (Irish Grid)	313872
Site northing (Irish Grid)	233987
Site easting (Irish Transverse Mercator)	713798
Site northing (Irish Transverse Mercator)	734013

Site details

Total site area (ha)	.23	ha
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Greenfield runoff

Method

Method	IH124
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IH124

	<u>My value</u>		<u>Map value</u>
SAAR (mm)	943 mm	☒	943
How should SPR be derived?	WRAP soil type		
WRAP soil type	4	☐	4
SPR	0.47		
QBar (IH124) (l/s)	1.6 l/s		

Growth curve factors

	<u>My value</u>		<u>Map value</u>
Hydrological region	12	☒	12
1 year growth factor	0.85		
2 year growth factor	0.95		
10 year growth factor	1.72		
30 year growth factor	2.13		
100 year growth factor	2.61		
200 year growth factor	2.86		

Results

Method	IH124	
Flow rate 1 year (l/s)	1.3	l/s
Flow rate 2 year (l/s)	1.5	l/s
Flow rate 10 years (l/s)	2.7	l/s
Flow rate 30 years (l/s)	3.4	l/s
Flow rate 100 years (l/s)	4.1	l/s
Flow rate 200 years (l/s)	4.5	l/s

Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent ‘zero’ figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.2.3) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com) (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Appendix E

CCTV Survey Report



Project

Project Name: USA10008 Steevens Lane

Project Date: 10/05/2026

Inspection Standard: MSCC5 Sewers & Drainage GB (SRM5 Scoring)



Table of Contents

Project Name	Project Number	Project Date
USA10008 Steevens Lane		10/05/2026

Project Information	P-1
Section Item 1: MH30 > SO13338904 (MH30X)	1



USA Ltd.
Underground Surveying & Analysis Ltd.

USA Ltd.
Blessington Business Park, Santryhill,, Blessington

Project Information

Project Name
USA10008 Steevens Lane

Project Number

Project Date
10/05/2026

Contractor

Company: USA Ltd.
Street: Blessington Business Park, Santryhill,
Town or City: Blessington
County: Co. Wicklow
Post Code: W91 YX65



USA Ltd.
Underground Surveying & Analysis Ltd.



Section Inspection - 10/05/2026 - MH30X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	10/05/26	12:18	Not Specified	No Rain Or Snow	Yes	MH30X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Pat W		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Town or Village:	Dublin	Inspection Direction:	Downstream	Upstream Node:	MH30
Road:	Steevens Lane	Inspected Length:	15.34 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	15.34 m	Downstream Node:	SO13338904
Surface Type:	Concrete Footway	Joint Length:	0.90 m	Downstream Pipe Depth:	
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	100 mm	
Flow Control:	No flow control		Material:	Vitrified clay	
Year Constructed:	Not Specified		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:	WinCan WEb				
Recommendations:					

Scale:	1:98	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m MH30							
		0.00	MH	Start node, manhole, reference: MH30	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		0.35	JN	Junction at 6 o'clock, 100mm dia: Buchan (winser) trap	00:00:10	1	
		0.55	MCCI	Pipe material changes to cast iron at this point	00:00:12		
		0.59	S03	DEZ	Attached deposits, other from 12 o'clock to 12 o'clock, 5% cross-sectional area loss, start: Rust build up	00:00:12	2
		0.75	S01	D	Deformed sewer or drain, 5%, start: Pipe has rust and is deformed	00:00:13	
		1.82	S02	DER	Settled deposits, coarse, 10% cross-sectional area loss, start	00:00:19	
		2.33	DEC	Settled deposits, hard or compacted, 30% cross-sectional area loss: Solid and has a rag on top	00:00:28		4
		3.50	F02	DER	Settled deposits, coarse, 10% cross-sectional area loss, finish	00:00:46	3
		11.23	F01	D	Deformed sewer or drain, 5%, finish: Pipe has rust and is deformed	00:01:40	2 / 2
		11.23	F03	DEZ	Attached deposits, other from 12 o'clock to 12 o'clock, 5% cross-sectional area loss, finish: Rust build up	00:01:40	3
		11.23	MCVC	Pipe material changes to vitrified clay at this point	00:01:41		
		11.23	SC	Pipe size changes, new size(s), 150mm high	00:02:05		



Section Inspection - 10/05/2026 - MH30X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	10/05/26	12:18	Not Specified	No Rain Or Snow	Yes	MH30X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Pat W		Not Specified		Not Specified	Not Specified	Not Specified	Not Specified

Scale: 1:98 SO13338904 Depth: m	Position [m]	Code	Observation	MPEG	Photo	Grade
	11.24	CC	Crack, circumferential from 7 o'clock to 9 o'clock	00:01:47	3	2 / 2
	11.24	DEE	Attached deposits, encrustation from 9 o'clock to 3 o'clock, 5% cross-sectional area loss	00:01:57	4	3
	11.24	CC	Crack, circumferential from 3 o'clock to 5 o'clock	00:01:57	5	2 / 2
	11.24	H	Hole in drain or sewer from 10 o'clock to 2 o'clock	00:02:00		5
	12.40	RXS	Defective repair, separation from host pipe from 11 o'clock to 1 o'clock: Hole covered by pipe piece. not properly sealed	00:01:41	6	
	14.15	JNC	Junction, closed at 12 o'clock, 150mm dia	00:02:33	7	
	14.19	MCPVC	Pipe material changes to polyvinyl chloride at this point	00:02:52		
	14.45	LR	Line deviates right	00:02:59		
15.34	MHF	Finish node, manhole, reference: SO13338904	00:03:32	8		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
4	205.0	3.6	405.0	5.0	7	10.0	0.4	46.0	5.0

Section Pictures - 10/05/2026 - MH30X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	MH30X		USA10008



1, 00:00:10, 0.35 m
Junction at 6 o'clock, 100mm dia, Buchan (winser) trap



2, 00:00:12, 0.59 m
Attached deposits, other from 12 o'clock to 12 o'clock, 5% cross-sectional area loss, start, Rust build up



3, 00:01:47, 11.24 m
Crack, circumferential from 7 o'clock to 9 o'clock



4, 00:01:57, 11.24 m
Attached deposits, encrustation from 9 o'clock to 3 o'clock, 5% cross-sectional area loss

Section Pictures - 10/05/2026 - MH30X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	MH30X		USA10008



5, 00:01:57, 11.24 m
 Crack, circumferential from 3 o'clock to 5 o'clock



6, 00:01:41, 12.40 m
 Defective repair, separation from host pipe from 11 o'clock to 1 o'clock, Hole covered by pipe piece. not properly sealed



7, 00:02:33, 14.15 m
 Junction, closed at 12 o'clock, 150mm dia



8, 00:03:32, 15.34 m
 Finish node, manhole, reference: SO13338904

Appendix F

Technical Note for Blue/Green Roof Derogation

Technical Note for Blue/green Roof Derogation

Consideration has been given to the potential incorporation of green and blue roof systems within the Proposed Development. However, the development comprises an unmanned high-voltage electrical substation containing critical electrical infrastructure on a physically constrained site. As such, the installation of green or blue roofs is not considered feasible due to electrical safety risks, operational limitations, and significant technical and engineering constraints. An exemption from the Dublin City Council (DCC) Green & Blue Roof Policy is therefore sought for this development.

High-voltage (HV) substations are unmanned and designed for minimal maintenance to maximise operational time. Access to live substations is strictly controlled and limited to competent operatives who are trained in electrical safety. Green and blue roof systems require ongoing inspection, vegetation management, and drainage maintenance, all of which would introduce operational constraints, increase safety risks, and conflict with the substation's requirement for restricted access.

The proposed GIS building is a two-storey steel-framed structure with proprietary cladding, constructed on reinforced concrete floor slabs. The roof comprises cold-formed steel purlins supporting insulated metal sandwich panels and has been engineered as a lightweight system. This is a standard design used for all ESB and Eirgrid substations across the country. The additional structural loading associated with a green or blue roof would exceed the design capacity of the proposed roof system and would necessitate substantial redesign of the building, resulting in significant engineering and cost implications.

Furthermore, the proposed development is an operational utility installation rather than a commercial or residential building. It has extremely limited occupancy, no public access, and restricted roof access for health and safety reasons. As a result, the environmental and amenity benefits typically associated with green roofs would be minimal in this context.

The DCC Green Blue Roof Policy states that "Exemptions will only be granted by DCC where it is demonstrated that suitable provision is made for SuDS measures (in accordance with Dublin City Council Sustainable Drainage Design and Evaluation Guide (2021) and all other planning requirements) and that appropriate sustainable drainage measures can be delivered on the site without the use of a green blue roof."

In line with the principles of sustainable drainage, the development will incorporate permeable surfacing throughout the site, providing enhanced surface water management and reducing runoff rates. These measures will achieve the drainage objectives typically associated with green/blue roofs while avoiding the significant operational and engineering challenges posed by roof-mounted attenuation systems.

Recent precedence on Blue / Green roof derogations for HV substations

Blue / Green roof derogations have been granted for a number of HV substations in recent years including:

- ESB Nutley Lane 110 kV substation located on the grounds of St. Vincent's Hospital, Dublin 4. DCC planning ref.: WEB1284/25
- Eirgrid's Dublin Central 220 kV substation located on East Wall road, Dublin 1. ACP planning ref.: ACP-323291-25

These precedents demonstrate established recognition that green/blue roof systems are not compatible with the operational, safety, and engineering requirements of HV substations.

It is therefore considered that sufficient justification exists for a site-specific derogation from the blue/green roof requirement in this instance.

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