



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

North City Operations Depot

St. Margaret's Road, Ballymun, Dublin 11

Waste Licence Application



Operational Report

Prepared by

TOBIN Consulting Engineers

Operational Report

PROJECT: **North City Operations Depot**
Waste Licence Application

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TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	SITE DESCRIPTION	1
1.2	BALLYMUN RECYCLING CENTRE	2
1.3	WASTE LICENCE REASONING	2
2	WASTE ACTIVITIES.....	3
2.1	GENERAL WASTE COMPACTION.....	4
2.2	ROAD SWEEPERS AND GULLY CLEANERS WASTE MANAGEMENT	5
2.3	ROADS MAINTENANCE, RIVER CLEANING AND HOUSING MAINTENANCE	6
2.4	WASTE TYPES	7
3	UNIT OPERATIONS	8
3.1	WASTE QUANTITIES.....	8
4	SITE INFRASTRUCTURE AND OPERATIONS	9
4.1	FOUL WATER DRAINAGE.....	9
4.2	SURFACE WATER DRAINAGE	10
4.2.1	<i>Sustainable Drainage Systems (SuDS)</i>	11
4.3	WATER SUPPLY.....	12
4.4	HOURS OF OPERATIONS.....	12
4.5	WASTE ACCEPTANCE.....	13
4.6	QUARANTINE	13
4.7	WASTE COLLECTION	13
4.8	SIGNAGE	13
4.9	FACILITY SECURITY AND PARKING.....	14
4.10	WELFARE FACILITIES	14

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TABLES, FIGURES & APPENDICES

TABLES

Table 2.1:	Waste Types and List of Waste Codes	7
Table 3.1:	Estimated Waste for Acceptance at the NCOD facility	8

FIGURES

Figure 1.1:	Waste Licence Facility at NCOD (extract from Site Plan) (Ballymun Recycling Centre facility outlined in orange).....	1
Figure 2.1:	General Waste Compaction Area (extracted from Site Plan)	5
Figure 2.2:	Road Sweeping and Gully Cleaning Equipment Waste Management Area (extracted from Site Plan)	6
Figure 2.3:	Roads Maintenance, River Cleaning and Housing Maintenance Waste Management Area (extracted from Site Plan).....	7

APPENDICES

Appendix A	Drawings
Appendix B	Irish Water Correspondence Re: Trade Effluent Discharge Licence

1 INTRODUCTION

Dublin City Council (DCC) is developing a new North City Operations Depot (NCOD) at St. Margaret's Road, Ballymun, Dublin 11 to consolidate its operations for the north city area, replacing a number of existing depots. The NCOD site will include the provision of facilities for the management and handling of waste materials as part of the DCC daily operations.

DCC is applying to the Environmental Protection Agency (EPA) for a Waste Licence for the operation of a Waste Transfer Station at the NCOD. The activities proposed at the facility are outlined herein. This Operational Report has been prepared for submission with the Waste Licence application and in accordance with the guidance outlined in the *Licence Application Form Guidance* published by the Agency in 2018¹.

1.1 SITE DESCRIPTION

The NCOD was granted planning permission by Fingal County Council (FCC) (Reg. Ref. F17A/0686) in January 2018 and construction of the development is scheduled for commencement in mid-2019.

The NCOD site is approx. 5.03 hectares (ha) in area and the proposed Waste Licence boundary occupies an area of 0.47 ha (see Figure 1.1). The redline boundary in Figure 1.1 signifies the boundary for the waste transfer station and the blue line signifies the DCC site ownership boundary.

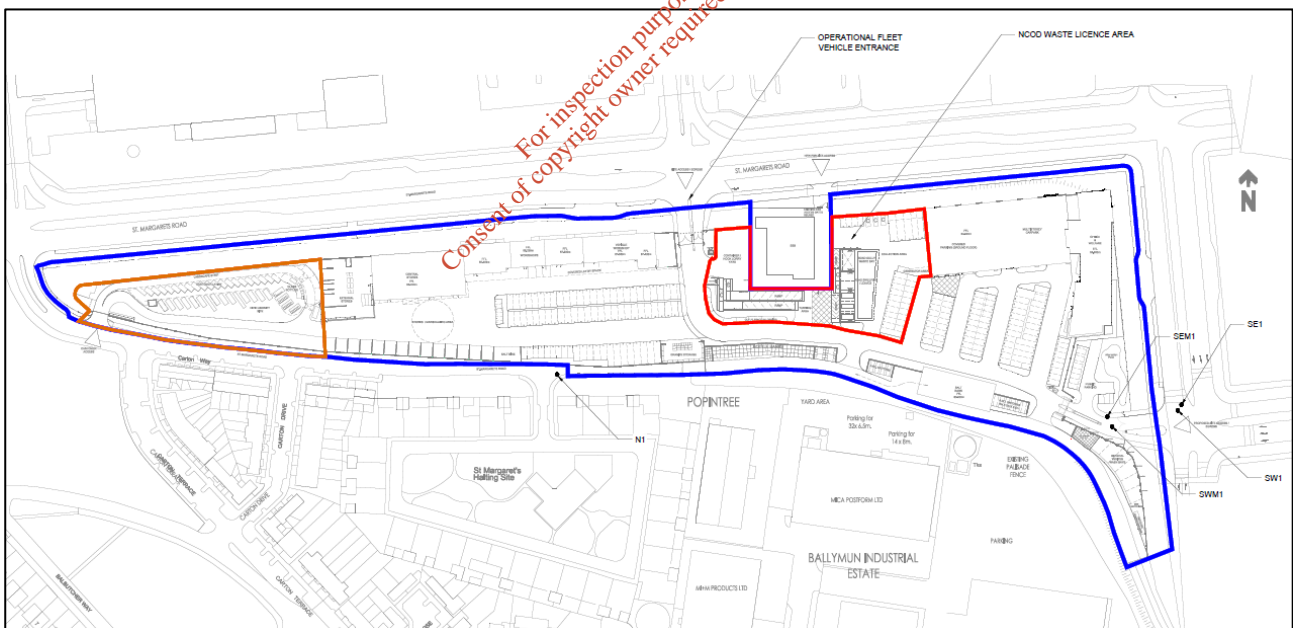


Figure 1.1: Waste Licence Facility at NCOD (extract from Site Plan) (Ballymun Recycling Centre facility outlined in orange)

Vehicles associated with DCC operations are only permitted to use the northern access to St. Margaret's Road, while staff vehicles and visitors will use the eastern entrance from St. Margaret's Road. These site

¹ EPA, *Licence Application Form Guidance – Industrial Emissions (IE), Integrated Pollution Control and Waste Version 2* (March 2018)

access locations are shown on the Site Plan. An internal access gate connects the main depot with a Civic Amenity Site and a separate public entrance is provided to the civic amenity site from Carton Way.

Further details on the operational traffic movements are provided in Sections 4.5 and 4.8.

1.2 BALLYMUN RECYCLING CENTRE

In addition to the Waste Licence for the NCOD waste transfer station to which this application relates, DCC also intend to submit a Waste Licence application to the EPA for the management and handling of waste materials at a civic amenity site, to be known as the Ballymun Recycling Centre. This separate waste licensed area will be located to the west of the main depot but within the overall NCOD site area. The civic amenity site will be open to the public for collection of household waste only and will operate in a similar manner to the existing Northstrand and Ringsend Recycling Centres which are currently managed and operated by Greenstar on behalf of DCC. It is intended, once the Waste Licence for the Ballymun Recycling Centre is granted, that the Licence will be transferred from DCC to a private contractor to run the facility on behalf of DCC.

The details of the Ballymun Recycling Centre Waste Licence operations are presented in the Operational Report (Document Ref. 10243-R-01-002) submitted with the Waste Licence application for that facility. The proposed Ballymun Recycling Centre Waste Licence boundary will have an area of approx. 0.45 ha and is outlined in orange in Figure 1.1 above.

1.3 WASTE LICENCE REASONING

Consultation has been undertaken between the applicant and the Agency in respect of this facility as well as the adjacent Ballymun Recycling Facility. Pre-application meetings were held at the Agency headquarters in October 2017 and September 2018. In addition, verbal and email correspondence has taken place.

An Article 11 Request (No. 2304) was submitted to the Agency by TOBIN in August 2017 based on the waste quantities anticipated for acceptance at the NCOD facility (including the civic amenity site). The Agency determined, based on the information provided, that the activity would require either a Waste Licence or Industrial Emissions Licence.

Subsequent to this Article 11 Request, it was determined, in light of the *Midlands Scrap Metal Company Ltd.* ([2016] IECA 64) judgement, that two authorisations should be sought for the proposed activities at the NCOD, namely; one authorisation for the handling of waste materials in accordance with DCC daily operations (i.e. this Waste Licence Application) and a separate authorisation for the proposed civic amenity site. This determination was made on the basis of DCC's intention to transfer the daily operations of the civic amenity site to a private operator in due course. Accordingly, the authorisation for the civic amenity site operations would be transferred to the private operator.

Further to the above and giving consideration to the types and quantities of waste proposed for acceptance at the NCOD Waste Facility and the Ballymun Recycling Centre, reference was made to the *Waste Management (Facility Permit and Registration) Regulations 2007*, as amended. Part I of the Third Schedule to the Regulations (listing the classes of activity subject to a Waste Facility Permit) states that:

“The carrying on by a person (other than a local authority) at a facility (other than a facility located in whole or in part in an area which is not within the functional area of a local authority) of any of the following activities, provided that –

- (a) The activity is not an activity which is carried on adjacent to, a facility at which a licensable activity is being carried out by the same legal entity.”*

In reference to the above, it was determined that both waste facilities should be submitted for Waste Licence authorisation.

2 WASTE ACTIVITIES

The new DCC depot will bring together under a single corporate facility the following existing operational departments:

- Housing Maintenance;
- Roads Maintenance;
- Surface Water and Drainage (excluding foul drainage/Irish Water activities);
- Public Lighting and Electrical;
- Signage;
- Traffic Management; and
- Waste Management.

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The depot will provide a range of buildings and facilities to service all of the departments including:

- Administration offices and welfare facilities (open plan offices with a small number of cellular offices, changing, locker and shower facilities, meeting and briefing rooms, welfare room, storage, canteen facilities and plant areas);
- Covered parking facilities (multi-storey type for fleet and private staff vehicles as well as bicycle parking);
- Workshops (welding/metalwork, painting, carpentry, electrical, vehicle repair and signage);
- Stores Warehouse;
- Salt Barn;
- Security Kiosks;
- External material and equipment storage bays;
- External fleet vehicle parking areas;
- Vehicle wash bays;

- Waste compaction and collection areas;
- Waste receptacle storage area (for large items);
- Grit box storage area; and
- Antique granite storage bay.

The operations of a number of the teams listed above will generate waste materials which are required to be handled, temporarily stored and transferred off-site for disposal or recovery from the depot. Accordingly, the waste activities are consigned to a dedicated area of the site which will be governed under this Waste Licence.

The waste activities can be summarised as:

- Compaction of waste collected from litter bins throughout the city;
- Management of waste collected by road sweepers and gully cleaners; and
- Management of waste generated from roads maintenance, housing maintenance and river cleaning.

The waste activities above will be confined to specific areas of the site which are within the designated Waste Licence boundary. Compaction, segregation and temporary storage of waste will only be carried out using dedicated skips/receptacles at locations as shown in the Site Plan. Management of waste collected by the road sweepers and gully cleaners will be restricted to the dedicated bays as shown on the Site Plan. The waste licence boundary incorporates car parking spaces adjacent to the street cleaning and gully waste bays to allow for temporary parking and manoeuvring of waste haulage vehicles and operations vehicles, as required.

2.1 GENERAL WASTE COMPACTION

Receptacles will be used for the collection of mixed municipal waste which is brought into the depot from street waste collections and other operational activities on a continuous basis. There will be two waste receptacles located side-by-side as shown in Figure 2.1 below with associated waste compactors. The receptacles will typically be of 35 cubic yard (cyd) capacity, enclosed and may be either of the portable compactor or static compactor type. Access is provided via a ramp to allow the DCC fleet vehicles to deposit waste into the top of the receptacles on their return to the depot.

There is a separate container/hook lorry yard as shown in Figure 2.1 which waste collection trucks will access to pick up the filled waste receptacles and remove them from site.

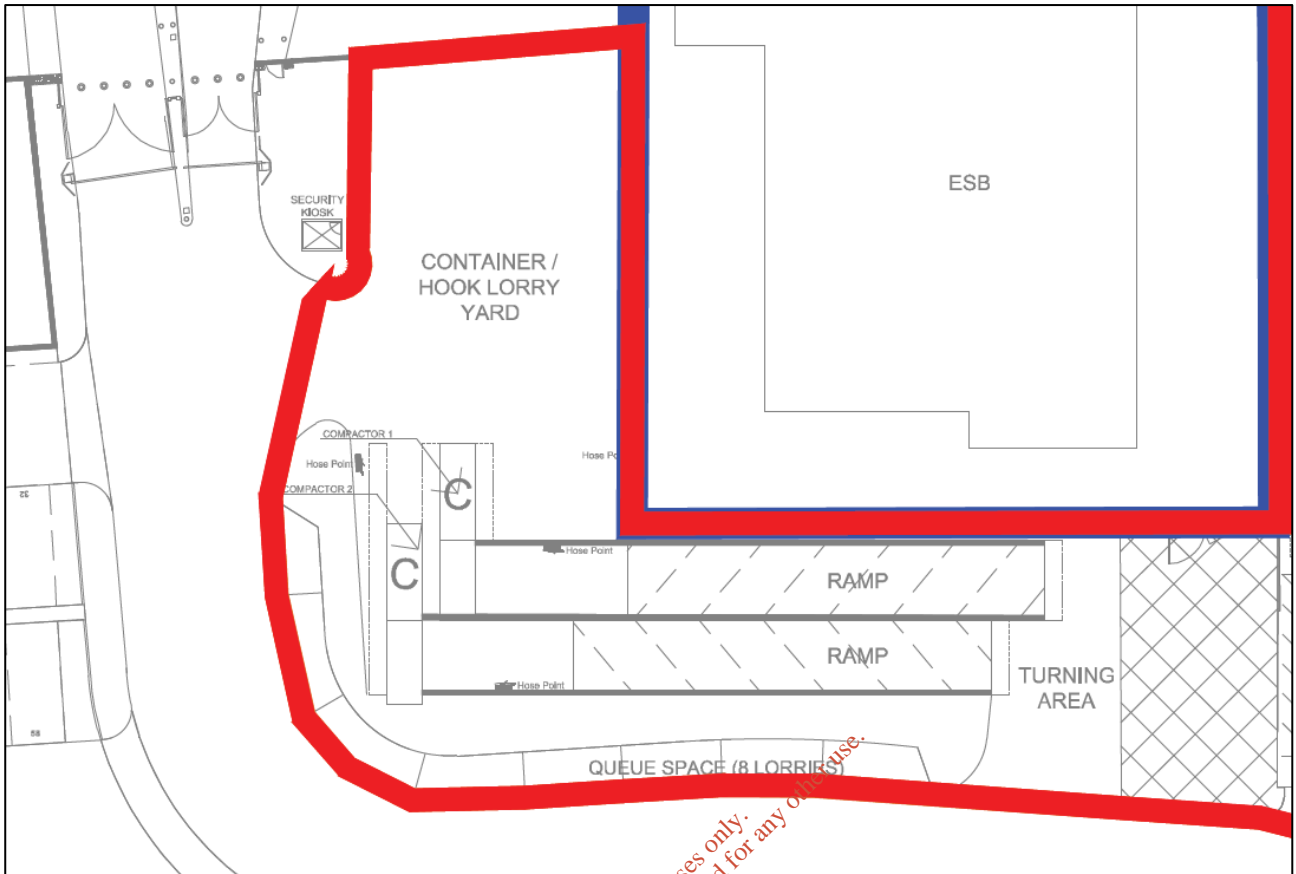


Figure 2.1: General Waste Compaction Area (extracted from Site Plan)

2.2 ROAD SWEEPERS AND GULLY CLEANERS WASTE MANAGEMENT

Waste management and roads maintenance teams carry out street sweeping and street gully cleaning on a regular and continuous basis. These vehicles will return to the depot, as required, and deposit their collected street cleaning waste into the dedicated bunded bays shown in Figure 2.2. The bays are designed so that liquids from the collected waste can drain off into the foul sewer network and the solid waste (i.e. grit, sand, leaves etc.) is deposited into dedicated skips. Screens will be installed on the drainage bund to remove suspended solids prior to discharge to the foul water network.

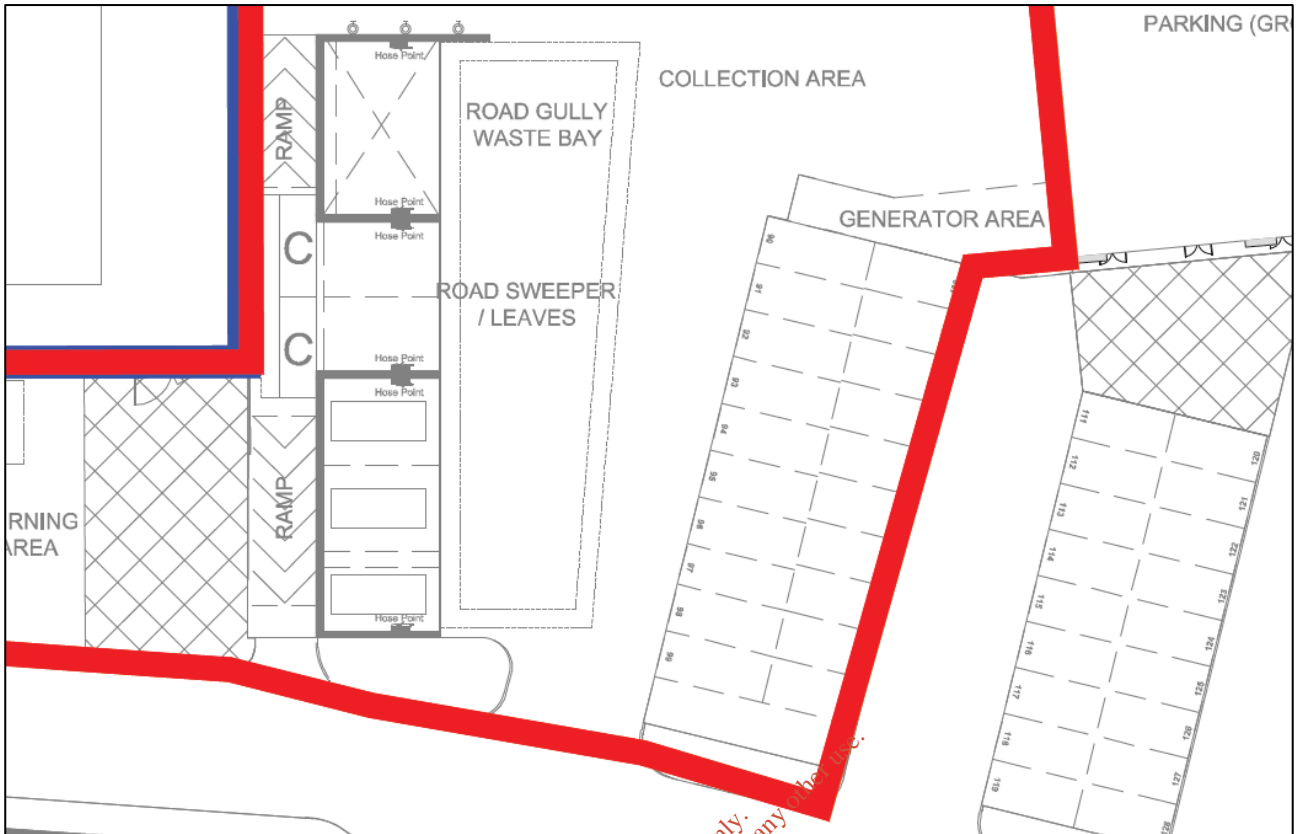


Figure 2.2: Road Sweeping and Gully Cleaning Equipment Waste Management Area (extracted from Site Plan)

2.3 ROADS MAINTENANCE, RIVER CLEANING AND HOUSING MAINTENANCE

DCC operations will also generate waste from roads maintenance, river cleaning and housing maintenance. Where appropriate, this waste material will be brought back to the depot and deposited in dedicated skips.

Housing maintenance activities can generate bulky waste items which need to be appropriately handled and recycled, where possible. Dedicated skips will be allocated for bulky waste and other appropriate waste types as required. River cleaning activities may also generate litter waste and bulky waste items which will be returned to the depot and segregated appropriately.

The roads maintenance department generates waste on a daily basis which is typically made up of a mix of concrete, stone, soil and bituminous material. This material is returned to the depot and is segregated prior to placement into dedicated skips. An area has been allocated for handling this waste material as shown in Figure 2.3. The dedicated waste containers are identified with ‘C’ in Figure 2.3 (also Figure 2.1 and 2.2). Vehicle parking spaces are outlined in Figure 2.3, however this space will be used for additional skip storage as required.

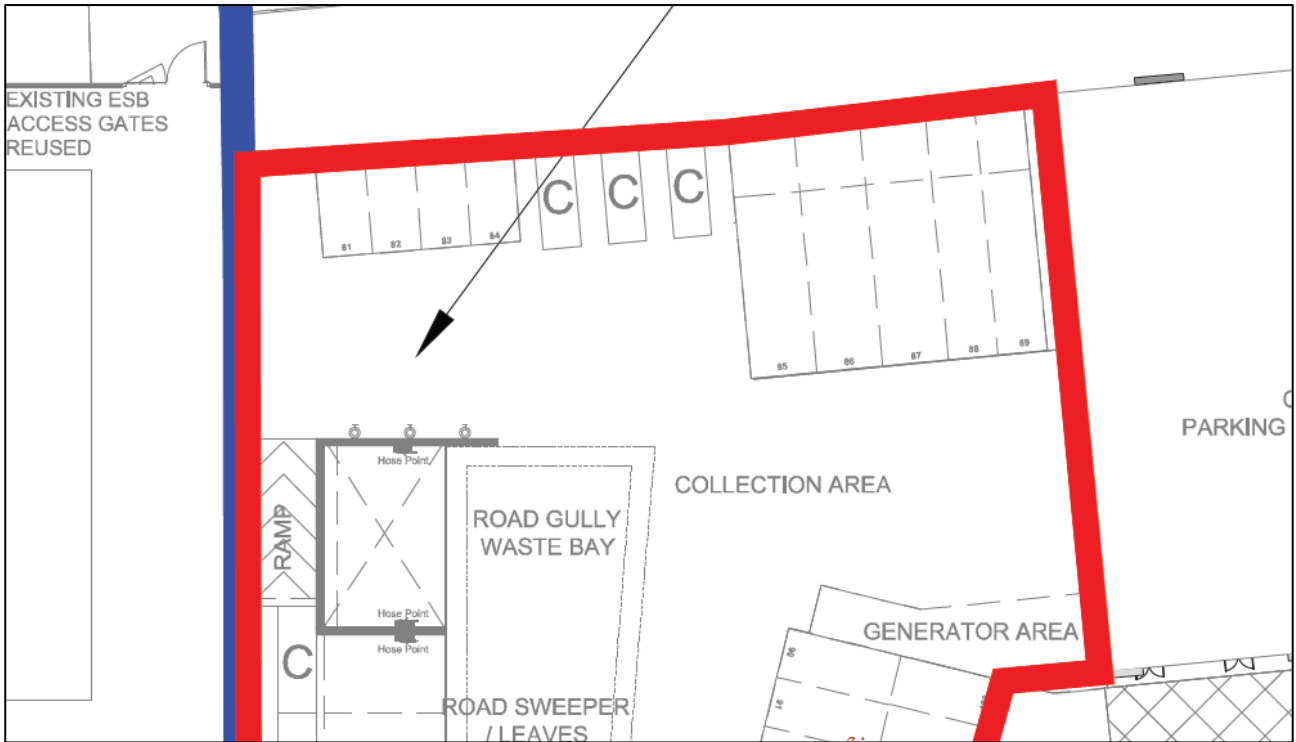


Figure 2.3: Roads Maintenance, River Cleaning and Housing Maintenance Waste Management Area (extracted from Site Plan)

2.4 WASTE TYPES

Table 2.1 outlines the waste types proposed for acceptance at the facility along with the corresponding List of Waste Code.

Table 2.1: Waste Types and List of Waste Codes

Waste Type	List of Waste Code
Garden and Park Wastes	20 02 01, 20 02 02, 20 02 03
Other Municipal Wastes	20 03 01, 20 03 02, 20 03 03, 20 03 07, 20 03 99
Soil and Stones	17 05 03, 17 05 04, 20 02 02
C&D Waste	17 01 01, 17 01 02, 17 01 03, 17 01 06, 17 01 07, 17 02 01, 17 02 02, 17 02 03, 17 02 04, 17 03 01, 17 03 02, 17 04 07, 17 04 11, 17 06 04, 17 08 01, 17 08 02, 17 09 04

Only waste collected by DCC as part of their operations will be taken to the NCOD facility. The waste will be sorted and segregated into the appropriate waste containers located at the facility. Once the containers are full, they will be removed from the facility by suitably permitted waste contractors. Waste materials will only be received or removed from the NCOD site via the northern access to St. Margaret’s Road.

DCC operations staff will be working across all areas of the depot and dedicated staff will be assigned to the recording, checking and monitoring of incoming fleet vehicles and associated wastes. The incoming wastes will be identical to those currently accepted at DCC depots across the Council's administrative area and the relevant staff are familiar with the current processes for accepting, handling and transferring waste off-site.

Any liquid wastes returned to the depot will be stored on bunded containers and away from surface water drains. The volumes of liquid waste handled at the depot are anticipated to be small.

3 UNIT OPERATIONS

The unit operations at the NCOD facility will comprise a waste transfer station for the collection and onward transport of waste materials collected by DCC operations teams as part of daily activities.

The facility will receive waste materials from street/litter bins, street cleaning, roads maintenance, river cleaning and housing maintenance operations which will be brought into the site in DCC fleet vehicles. The waste materials will be segregated into dedicated waste containers and temporarily stored pending transfer off-site.

On a regular basis, the facility staff will arrange for the collection of waste from the facility for onward transport and reuse, recycling, recovery or disposal, as appropriate. All waste removed from the site will be done so by permitted waste hauliers and transferred to appropriately permitted or licensed waste facilities.

Where possible, waste materials will be transferred off-site for reuse and recycling in preference of recovery or disposal. DCC are involved with the nearby Ballymun Rediscovery Centre and will engage with the Centre in the provision of suitable materials for reuse and recycling, where possible.

3.1 WASTE QUANTITIES

Based on the current waste quantities collected at similar existing DCC depots, the estimated waste quantities to be accepted at the NCOD facility are presented in Table 3.1 below.

Table 3.1: Estimated Waste for Acceptance at the NCOD facility

Waste Type	Tonnes per Annum
Gully sucking, street sweeping waste and street bins	11,700
Roads maintenance	7,300
Bulky waste (mainly from housing maintenance and river cleaning operations)	5,900
Total	24,900

Accordingly, it is anticipated that the NCOD facility will handle approx. 24,900 tonnes of waste per annum. All waste material received at the facility will be transferred off-site for appropriate reuse, recycling, recovery or disposal.

To ensure that the following thresholds for an Industrial Emissions (IE) Licence as set out in the First Schedule to the *Environmental Protection Agency (EPA) Act 1992*, as amended, are not exceeded, the maximum quantity of non-hazardous waste accepted at the facility (for a mix of recovery and disposal) will not exceed 75 tonnes per day and the maximum quantity of hazardous waste accepted at the facility (for disposal or recovery) will not exceed 10 tonnes per day. In addition, the maximum quantity of hazardous waste that will be temporarily stored on site at any one time will not exceed 50 tonnes.

- *Class 11.2: Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities (a – k).*
- *Class 11.4 (b): Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities (i - iv), (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply).*
- *Temporary storage of hazardous waste, (other than waste referred to in paragraph 11.5) pending any of the activities referred to in paragraph 11.2, 11.3, 11.5 or 11.7 with a total capacity exceeding 50 tonnes, other than temporary storage, pending collection, on the site where the waste is generated.*

4 SITE INFRASTRUCTURE AND OPERATIONS

4.1 FOUL WATER DRAINAGE

An existing 750mm diameter foul sewer pipe runs along St. Margaret's Road to the east of the overall NCOD site. The foul drainage from the overall site will discharge to this existing 750mm diameter sewer. A pre-connection enquiry was submitted to Irish Water on 31 July 2017 along with preliminary calculations for effluent discharge from the overall site (including the civic amenity site) and the response from Irish Water stated that the proposed connection can be facilitated. This correspondence is included in the Engineering Services Report.

Wastewater effluent discharged from the overall site will comprise both trade effluent and domestic effluent.

Domestic effluent will be generated from the site offices and welfare buildings by a combination of depot-based staff, fleet staff and visitors. Using guidance from the EPA Wastewater Treatment Manual ², the estimated wastewater generation for full time staff is 60 litres/person/day and for fleet staff/visitors is 20

² EPA, *Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels* (1999)

litres/person/day. It is estimated that there will be approx. 181 no. full-time staff and 510 no. fleet staff/visitors at the overall site which equates to approx. 21.1m³/day of domestic effluent.

Trade effluent will be generated from the NCOD waste licensed area as a result of liquid run-off from the street cleaning and gully sucker waste bays. Collection drains will be located around this area to ensure any 'dirty' run-off from these activities is kept out of the 'clean' surface water drainage network. It is estimated that there will be typically be 14 no. street sweepers comprising of eight large sweepers and six small sweepers. The large sweepers will typically generate 340 l/day of effluent and the small sweepers will typically generate 170 l/day.

Run-off and wash-water will also be collected from around the street waste receptacles and from the base of the ramp leading up to the skips and collected in the foul water network.

All the foul effluent from the NCOD waste licensed area will be combined with the domestic effluent from the rest of the NCOD site (including the civic amenity site) and discharged to the Irish Water network at the eastern boundary of the overall site (Emission Point Code SE1 as shown on the Site Plan).

The drainage layout for the NCOD depot is shown on the drawings in Appendix A.

In addition to the above, 'dirty' wash-water will be generated in the general vehicle washing bays in the south-east corner of the overall site (outside of the waste licenced area). Collection drains around this area will divert the wash-water into the foul network and keep it separate from the 'clean' surface water drainage network. Run-off from car washing activities alone would typically require a Trade Effluent Discharge Licence (TEDL) issued by Irish Water. It has been agreed with Irish Water, however, that a separate TEDL is not required for this activity wherein the effluent discharge from the vehicle washing bays is within the site perimeter and the effluent is regulated in accordance with the NCOD Waste Licence. Correspondence with Irish Water in relation to the above is included in Appendix B.

Steel galvanised screens and interceptors will be installed between the drainage surrounding the 'dirty' processing areas outlined above and the foul drainage pipework as shown on the drawings in Appendix A.

Monitoring of the foul effluent from the site will be carried out at SEM1 (as shown on the Site Plan) on the eastern boundary of the site in accordance with the Waste Licence Conditions.

4.2 SURFACE WATER DRAINAGE

Irish Water records indicate a 900mm diameter surface water pipe east of the NCOD site on St. Margaret's Road. The surface water drainage system for the overall NCOD site has been designed in accordance with the Greater Dublin Strategic Drainage Strategy (GDSDS) and the Greater Dublin Regional Code of Practice for Drainage Works. It will ensure that surface water discharge from the site is limited to the allowable greenfield runoff rate (Qall) of 53.55 litres/second (l/s) or 14.2 l/s/ha, in accordance with GDSDS, through a combination of attenuation storage tanks, permeable paving and a green roof.

All surface water to the attenuation system will discharge to the existing surface water network via a fuel/oil separators and vortex type flow control chambers.

The storm water drainage has been designed to cater for surface water from hard surfaces in the site including roadways, footpaths, and buildings. The drainage network has been designed so that the network pipelines and manholes will not be surcharged as a result of the critical 2-year critical rainfall and will not overflow as a result of the critical rainfall with a 30-year and 100-year storm return period intensity. The most up-to-date rainfall intensities for the site area have been derived from Met Éireann and an allowance of 20% increase to account for climate change has been implemented in the attenuation capacity design.

4.2.1 Sustainable Drainage Systems (SuDS)

The general principal behind SuDS is to reduce the quantity and increase the quality of water leaving the site. In practice, a calculation for the site run-off is carried out using the Institute of Hydrology report No. 124. This gives the limit for discharge from the site.

In accordance with the GSDSDS, underground storage is provided for the 1 in 30-year storm with on-site attenuation provided for the 1 in 100-year storm, to ensure that there is no flooding of the buildings. A flood risk assessment has been carried out to ensure that there is no risk of damage to property or people and to mitigate against flood risks. Flood routing is designed into the site layout.

The SuDS strategy adopted was to divide the overall NCOD site into three separate SuDS Zones, each with its own geocellular tank, fuel/oil separator and vortex type flow control chamber. Each of these zones will then discharge the clean storm water to a trunk main at controlled rates. This trunk main will then discharge to the public storm sewer to the east of the NCOD site along St. Margaret's Road. The SuDS Zones hardstanding areas draining to the network are as follows:

- Zone 01 – 0.42 ha
- Zone 02 – 1.44 ha
- Zone 03 – 1.92 ha

The NCOD waste licenced area is spread across both Zone 02 and 03 and is shown on the Drainage Layout Master Plan in Appendix A.

The geocellular attenuation system units have been designed for storm periods with rainfall intensities taken for up to the 100-year return period. The stormwater drainage systems in each of the SuDS Zones will be restricted by vortex type flow control chambers to the following allowable greenfield run-off (Qall) rates:

- Zone 01 – 5.97 l/s
- Zone 02 – 20.40 l/s
- Zone 03 – 27.18 l/s

This gives a combined Qall of 14.14 l/s/ha or 53.55 l/s to the existing public surface water network to the east of the overall NCOD site.

It is proposed to install bypass fuel/oil separators at the NCOD site as shown on the drainage layouts in Appendix A. The stormwater from the external paved areas will include run-off from the car parking areas and, therefore, may contain hydrocarbons. Potential hydrocarbon pollutants require removal, so that they are not discharged into the environment. The bypass fuel/oil separators have been sized to cater for the total external paved areas.

A sedum roof will be constructed on the civic amenity site office as well as the main depot office building to compliment the overall site SuDS objectives.

4.3 WATER SUPPLY

It is proposed to connect a new 250mm diameter watermain to the existing 300mm diameter watermain on the northern boundary of the NCOD site along St. Margaret's Road. This new watermain is to include boundary boxes with integral stopcocks at the connections. Provision is also to be made for the installation of bulk flow meter chambers.

Water consumption at the NCOD waste facility will be from water used for wash-down and cleaning. The response to the pre-connection enquiry submitted to Irish Water advised that the proposed connection to the network can be facilitated.

To ensure all parts of the building footprints within the overall NCOD site are within 46m of a fire hydrant, hydrants will be located around the site in addition to the existing hydrants located along St. Margaret's Road. All hydrants are within a minimum distance of 30m to a vehicle access roadway or hard-standing area for fire appliances in accordance with Part B of the Building Regulations.

Two water storage tanks for fire-fighting purposes have also been provided to supply a flow rate of 1500 l/min as per BS 9990³. The watermain layout and location of hydrants and underground storage tanks are shown in Appendix A.

The EPA guidance note on fire safety at non-hazardous waste transfer stations⁴ will be consulted in the preparation of an Emergency Response Procedure for the facility.

4.4 HOURS OF OPERATIONS

Staff who will be using the depot will work in shifts depending on the department they work for. Shift times vary for each department and are summarised as follows:

- Roads maintenance: 07:45 – 14:00/16:30hrs from Mon-Fri with a winter shift commencing from 03:00 (for roads salting);

³ British Standards Institute (BSI), *BS9990:2015 – Non automatic fire-fighting systems in buildings* (2015)

⁴ EPA, *Guidance Note: Fire Safety at Non-Hazardous Waste Transfer Stations* (2013)

- Public lighting and electrical: 08:15/08:30 – 15:00/17:00hrs;
- Traffic management: 08:00 – 16:30hrs;
- Waste management: 06:00 – 16:30hrs plus night crew from 22:00 – 06:30hrs;
- Housing maintenance: 07:30 – 17:00;
- Surface water maintenance: 06:00 – 14:30;
- Office/administration: 08:00 – 17:00; and
- Stores, workshop and yard: 08:00 – 18:00.

In the main, therefore, the depot will be operational from 06:00 to 18:00 with limited additional times for waste management night crews, winter road salting operations and emergency call-outs.

4.5 WASTE ACCEPTANCE

Waste material will only be brought to the NCOD site from DCC operations teams and no waste will be received at this facility from the public.

A Waste Acceptance Procedure is included as Attachment-4-3-5.

4.6 QUARANTINE

The waste types proposed for acceptance at the facility are outlined in Table 2.1 above. However, on occasion, operations teams may encounter other waste types as part of clean-up operations and/or removal of illegal dumping. Where appropriate, waste contractors will be engaged to remove this waste, or the waste will be brought to a suitable facility.

In the event that waste materials are brought to the depot which are not suitable for segregation into the skips as provided, this waste will be transferred to a quarantine area in the Roads Maintenance, River Cleaning and Housing Maintenance Waste Management Area shown in Figure 2.3. The material will be subsequently removed from the NCOD facility as soon as possible.

4.7 WASTE COLLECTION

All waste materials collected from the NCOD waste facility and transferred off-site for reuse, recycling, recovery or disposal will exit the site onto St. Margaret's Road opposite the entrance to IKEA. This signal-controlled junction is permitted for HGV use in accordance with the relevant planning permission. All waste collection vehicles removing waste from the site will be required to hold a valid waste collection permit in accordance with the requirements of the *Waste Management (Collection Permit) Regulations 2007* as amended.

4.8 SIGNAGE

As is typically required under a Waste Licence authorisation, a Facility Notice Board will be erected at the site entrance which will display the name and telephone number of the facility, licence reference number and license holder name as well as any other details required under the licence conditions.

Appropriate signage will also be erected adjacent to each of the works areas as set out in Section 2 to direct drivers to the correct areas and labels will be placed on waste receptacles to advise on which waste types should be placed within.

4.9 FACILITY SECURITY AND PARKING

All operations vehicles will access the NCOD site from the northern entrance to St. Margaret's Road only. Staff cars and visitors will access the depot from the eastern entrance to St. Margaret's Road.

A separate sliding gate on the western boundary of the main depot will provide access to the civic amenity site.

The overall NCOD site boundary will be secured by a 3m high weldmesh boundary fence which will extend to 5m high at the entrance to the civic amenity site (from Carton Way). External lighting and CCTV cameras will be installed on the site boundary.

Car parking for the overall NCOD facility will include parking for operational fleet, staff and visitors. Overall, there will be approx. 336 no. fleet vehicles ranging from small sized vans to large road sweepers and hoists. Fleet vehicle parking has been designed in groups according to operational requirements and includes both external and internal parking areas. Charging points will be provided to serve electric fleet vehicles. Staff car parking, and selected fleet vehicles, will be accommodated in the multi-storey car park at the north-eastern corner of the NCOD site.

4.10 WELFARE FACILITIES

Staff working in the NCOD waste management operations will avail of welfare facilities provided in the main administration building.

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APPENDIX A

Drawings

NCOD-TOB-ZZ-XX-DR-CE-6251A - Drainage Layout Master Plan

NCOD-TOB-ZZ-XX-DR-CE-6252A - Drainage Layout















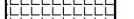



NCOD-TOB-ZZ-XX-DR-CE-6253A - Watermain Master Plan

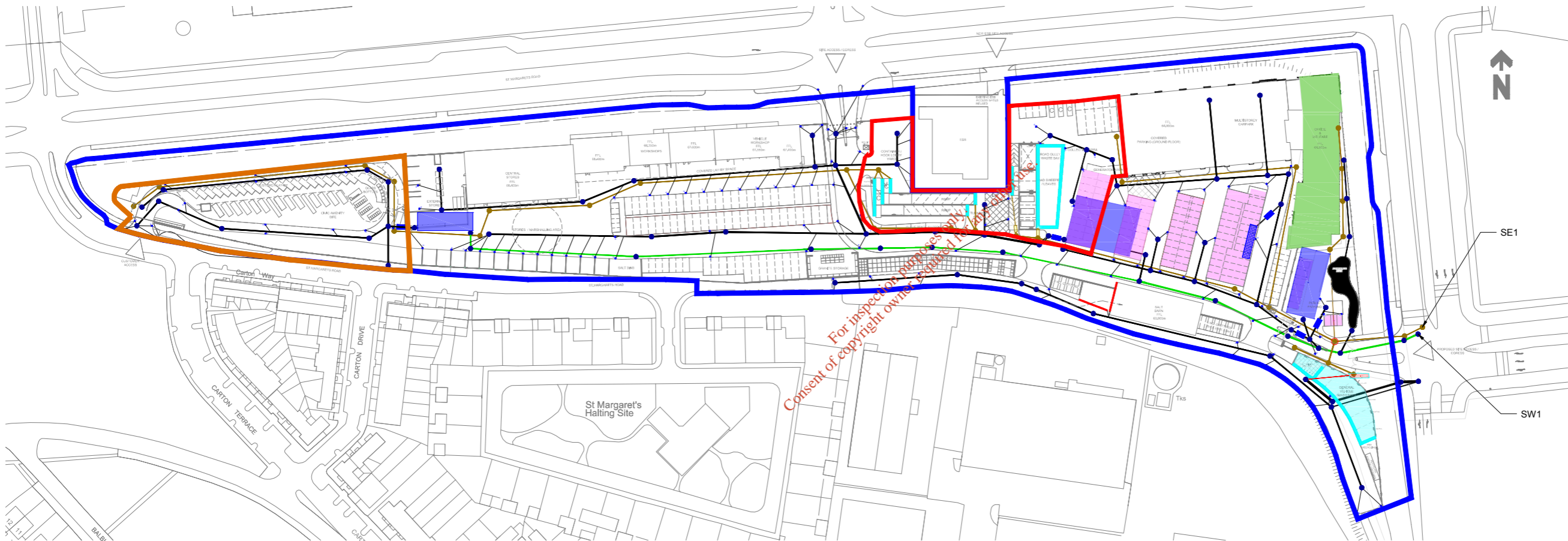
NCOD-TOB-ZZ-XX-DR-CE-6254A - Watermain Layout

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THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM

LEGEND

-  OWNERSHIP BOUNDARY
-  BALLYMUN RECYCLING CENTRE WASTE LICENCE BOUNDARY
-  NCCD WASTE LICENCE BOUNDARY
-  STORM WATER PIPE (CONCRETE PIPE)
-  TRUNK STORM WATER PIPE (CONCRETE PIPE)
-  FOUL WATER PIPE THERMOPLASTIC STRUCTURAL WALL PIPE
-  PRECAST CONCRETE DISHED DRAINAGE CHANNEL
-  GEO-CELLULAR ATTENUATION TANK
-  SELF CONTAINED WASHDOWN AREA
-  RAINWATER HARVESTING TANK
-  GREEN ROOF
-  PERMEABLE PAVING
-  ATTENUATION POND
-  STORM / SURFACE MANHOLE
-  FOUL MANHOLE
-  ROAD GULLY
-  TRENCH (REFER TO TRENCH DETAIL: DWG NCCD-TOB-ZZ-XX-DR-CE-2076)
-  CONCRETE ACO DRAIN (REFER TO ACO DETAIL: DWG NCCD-TOB-ZZ-XX-DR-CE-2076)



Site Drainage Layout
(Scale 1:1000)

Rev	Date	Description	By	Chkd.
A	FEB-2019	ISSUED FOR LICENCING	PK	RH

Client:  Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

Project:
**NORTH CITY OPERATIONS DEPOT
BALLYMUN
FOR DUBLIN CITY COUNCIL**

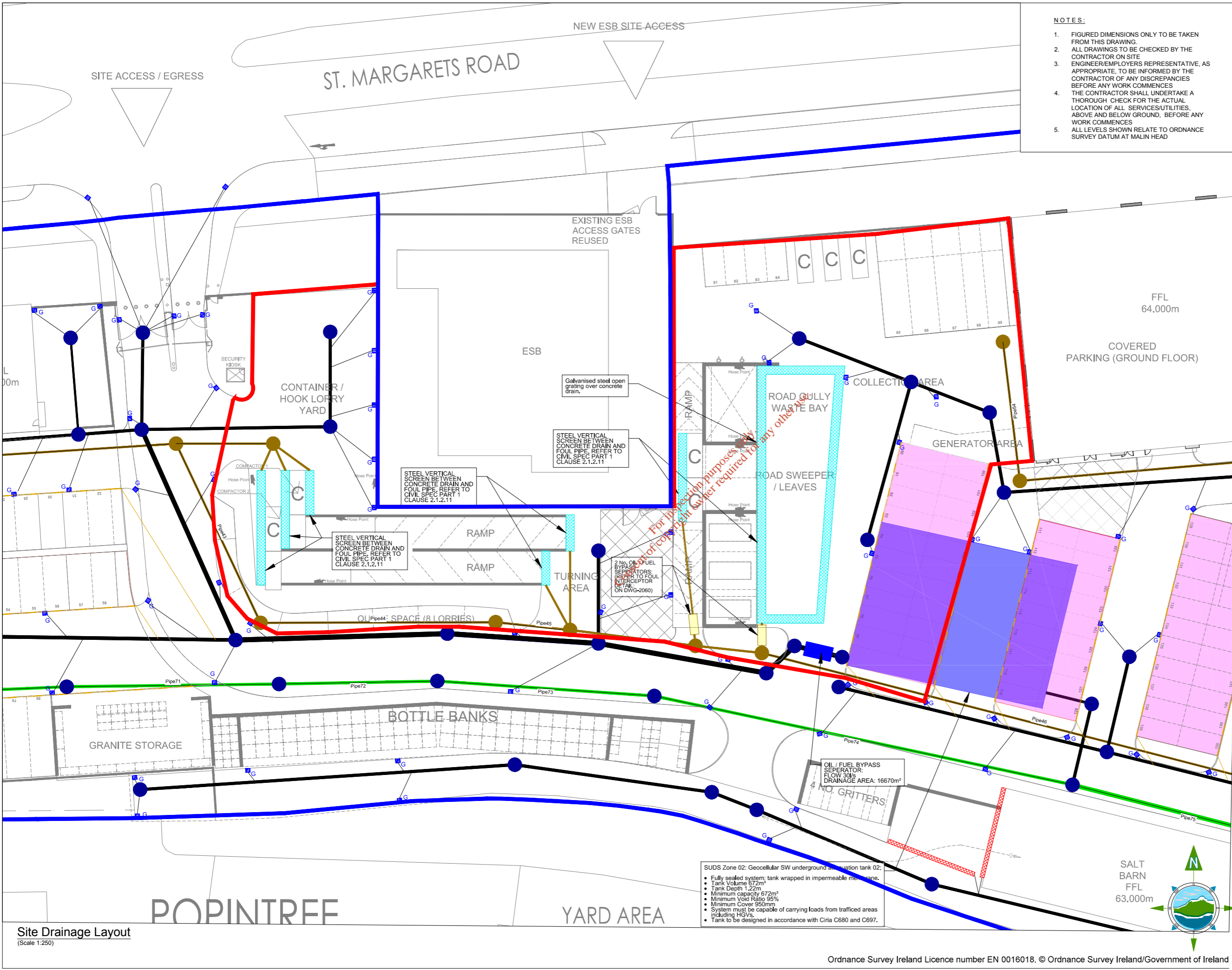
Title:
**DRAINAGE
LAYOUT
MASTER PLAN**

Scale @ A1: **1:1000**

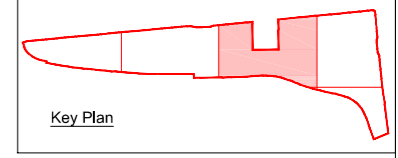
Prepared by:	Checked:
PK	RH
FEB 2019	
Project Director:	Michael McDonnell
Suitability Status:	FOR LICENCING


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www.tobin.ie

Drawing No.: NCCD-TOB-ZZ-XX-DR-CE-6251A Revision: **A**



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 4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
 5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.



THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM

- LEGEND**
- OWNERSHIP BOUNDARY
 - NCOD WASTE LICENCE BOUNDARY
 - STORM WATER PIPE (CONCRETE PIPE)
 - TRUNK STORM WATER PIPE (CONCRETE PIPE)
 - FOUL WATER PIPE THERMOPLASTIC STRUCTURAL WALL PIPE
 - GEO-CELLULAR ATTENUATION TANK
 - PERMEABLE PAVING
 - STORM / SURFACE MANHOLE
 - FOUL MANHOLE
 - ROAD GULLY
 - TRENCH (REFER TO TRENCH DETAIL: DWG NCOD-TOB-ZZ-XX-DR-CE-2076)
 - CONCRETE ACO DRAIN (REFER TO ACO DETAIL: DWG NCOD-TOB-ZZ-XX-DR-CE-2076)

Rev	Date	Description	By	Chkd.
A	FEB-2019	ISSUED FOR LICENCING	PK	RH

Client: Comhairle Cathrach Bhaile Átha Cliath Dublin City Council

Project: NORTH CITY OPERATIONS DEPOT BALLYMUN FOR DUBLIN CITY COUNCIL

Title: DRAINAGE LAYOUT

Scale @ A1: 1:250
 Prepared by: PK Checked: RH FEB 2019
 Project Director: Michael McDonnell
 Suitability Status: FOR LICENCING
















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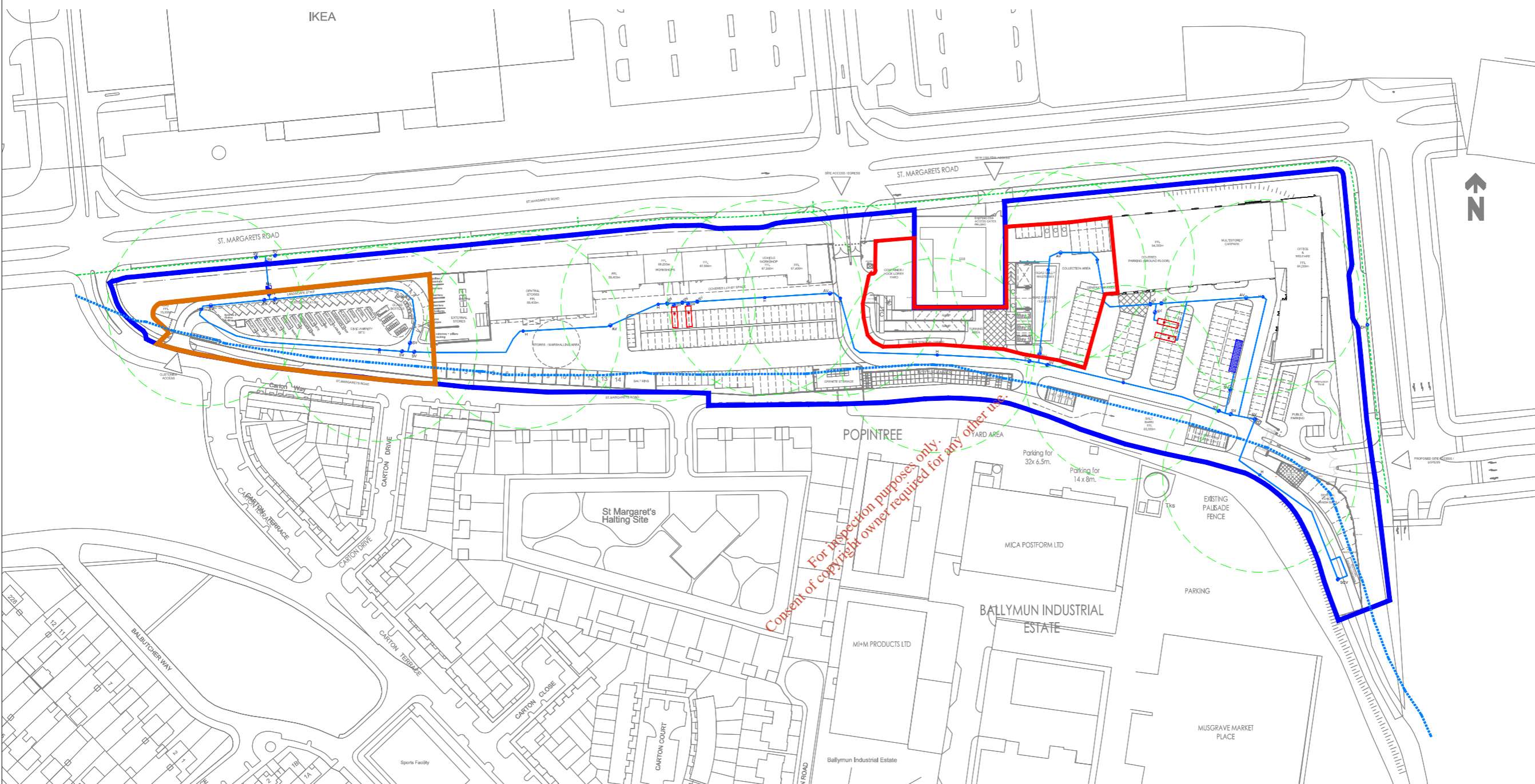
Drawing No.: NCOD-TOB-ZZ-XX-DR-CE-6252A
 Revision: A

- SUDS Zone 02: Geocellular SW underground attenuation tank 02:
- Fully sealed system; tank wrapped in impermeable membrane.
 - Tank Volume 672m³
 - Tank Depth 1.22m
 - Minimum capacity 672m³
 - Minimum Void Ratio 95%
 - Minimum Cover 950mm
 - System must be capable of carrying loads from trafficed areas including HGVs.
 - Tank to be designed in accordance with Ciria C680 and C697.

Site Drainage Layout
 (Scale 1:250)


THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM

- LEGEND**
-  OWNERSHIP BOUNDARY
 -  BALLYMUN RECYCLING CENTRE WASTE LICENCE BOUNDARY
 -  NCOD WASTE LICENCE BOUNDARY
 -  EXISTING MOPVC 300mm WATERMAIN FROM FCC RECORDS
 -  PROPOSED 250mm HDPE POTABLE WATERMAIN
 -  FIRE HYDRANT COVERAGE
 -  PROPOSED 900Ø PE100 DIVERTED WATERMAIN: REFER TO NCOD-TOB-07-XX-DR-CE-2110 FOR DETAILS
 -  EXISTING 800Ø DI WATERMAIN: REFER TO NCOD-TOB-07-XX-DR-CE-2110 FOR DETAILS
 -  H FIRE HYDRANT
 -  EH EXISTING HYDRANT
 -  SV SLUICE VALVE
 -  SCV SCOUR VALVE
 -  Me BULK WATER METER
 -  AV AIR VALVE
 -  RAINWATER HARVESTING TANK



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Rev	Date	Description	By	Chkd.
A	FEB-2019	ISSUED FOR LICENCING	PK	RH

Client:  Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

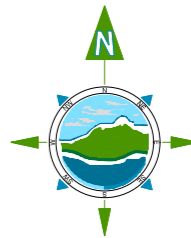
Project: **NORTH CITY OPERATIONS DEPOT BALLYMUN FOR DUBLIN CITY COUNCIL**

Title: **WATERMAIN MASTER PLAN**

Scale @ A1:	1:1000
Prepared by:	Checked:
PK	RH
	FEB-19
Project Director:	Michael McDonnell
Suitability Status:	A

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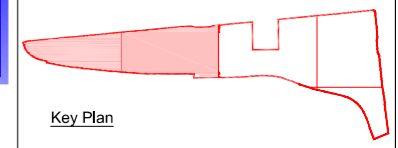
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Site Watermain Plan
(Scale 1:500)

- NOTES:**
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 - ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.
 - REFER TO DRAWINGS NCOD-TOB-07-XX-DR-CE-2090-2094 FOR DETAILS.

THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM



LEGEND

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- - - EXISTING MOPVC 300mm WATERMAIN FROM FCC RECORDS
- PROPOSED 250mm HDPE POTABLE WATERMAIN
- - - FIRE HYDRANT COVERAGE
- - - PROPOSED 900Ø PE100 DIVERTED WATERMAIN: REFER TO NCOD-TOB-07-XX-DR-CE-2110 FOR DETAILS
- - - EXISTING 800Ø DI WATERMAIN: REFER TO NCOD-TOB-07-XX-DR-CE-2110 FOR DETAILS
- FIRE HYDRANT
- EH EXISTING HYDRANT
- SV SLUCE VALVE
- SCV SCOUR VALVE
- Me BULK WATER METER
- AV AIR VALVE
- RAINWATER HARVESTING TANK

Rev	Date	Description	By	Chkd.
A	FEB-2019	ISSUED FOR LICENCING	PK	RH

Client: Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

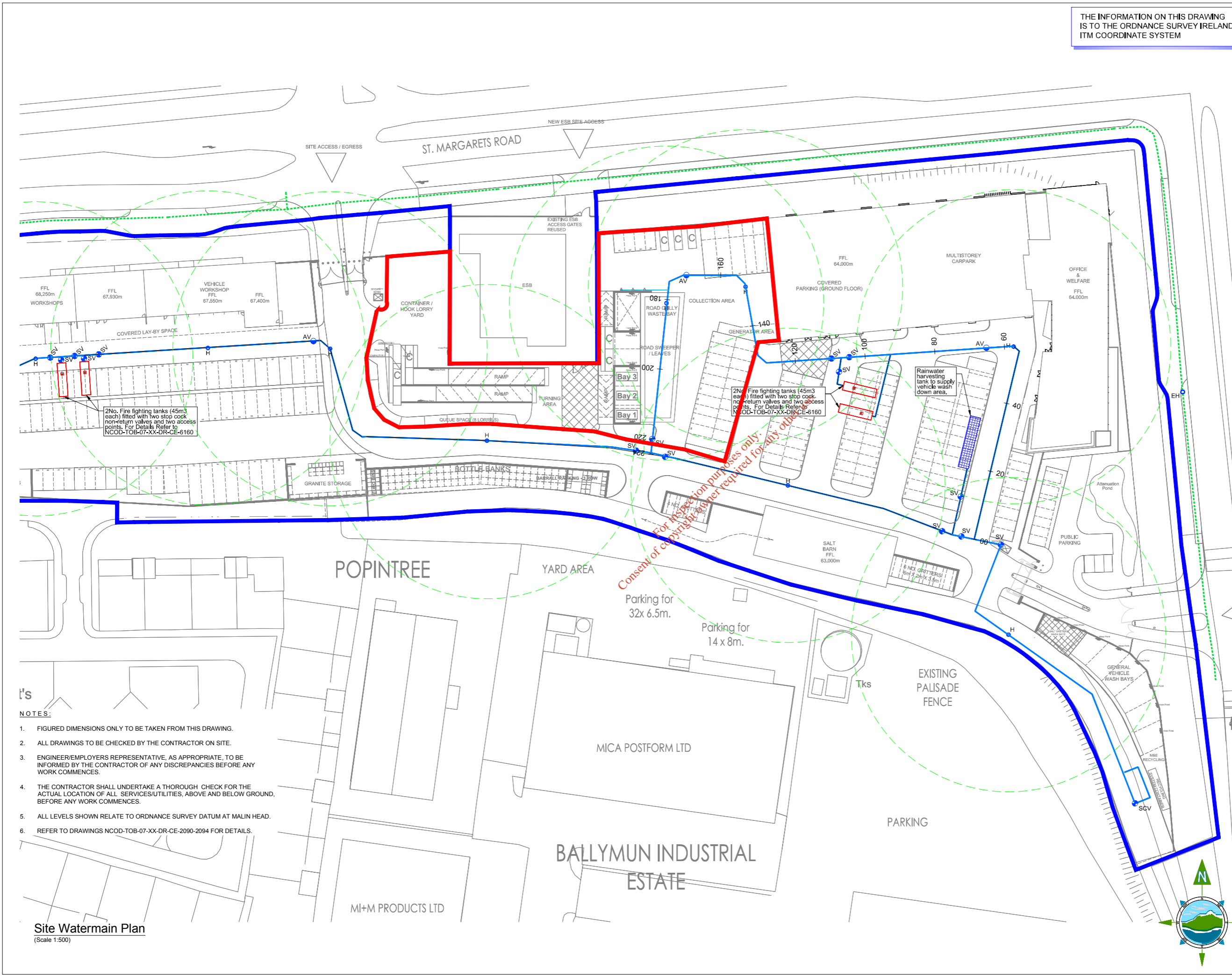
Project: NORTH CITY OPERATIONS DEPOT
BALLYMUN
FOR DUBLIN CITY COUNCIL

Title: WATERMAIN LAYOUT

Scale @ A1: 1:500
Prepared by: PK Checked: RH FEB-19
Project Director: Michael McDonnell
Suitability Status: FOR LICENCING

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www.tobin.ie

Drawing No.: NCOD-TOB-ZZ-XX-DR-CE-6254A
Revision: **A**



2 No. Fire fighting tanks (45m³ each) fitted with two stop cock non-return valves and two access points. For Details Refer to NCOD-TOB-07-XX-DR-CE-6160

2 No. Fire fighting tanks (45m³ each) fitted with two stop cock non-return valves and two access points. For Details Refer to NCOD-TOB-07-XX-DR-CE-6160

Rainwater harvesting tank to supply vehicle wash down area.

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Site Watermain Plan
(Scale 1:500)

APPENDIX B

Irish Water Correspondence Re: Trade Effluent Discharge Licence

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Robert Hunt

From: dischargetosewer <dischargetosewer@water.ie>
Sent: Friday 25 January 2019 12:06
To: Robert Hunt
Subject: RE: 10243 - Ballymun Depot, DCC North City Operation

Hi Robert,

I am contacting you in relation to your Discharge to Sewer query.

I can advise that a DTS licence is not required if the vehicle washing bay area is within the site perimeter.

All details of discharges to the sewer should be included in the Waste Licence application to the EPA.

I trust you find this information helpful.

Kind regards,

Áine O'Flynn
Customer Service Advisor

Uisce Eireann

Bosca OP 860, Oifig Sheachadta na Cathrach Theas, Cathair Chorcaí, Éire

Irish Water

PO Box 860, South City Delivery Office, Cork City, Ireland

[T: 1850 278 278](tel:1850278278)

[Minicom: 1850 378 378](tel:1850378378)

www.water.ie

From: Robert Hunt [mailto:Robert.Hunt@tobin.ie]
Sent: 22 January 2019 10:10
To: dischargetosewer
Subject: 10243 - Ballymun Depot, DCC North City Operation

Hi,

I spoke to someone in Irish Water yesterday afternoon (Kieran – I think but I didn't get a second name) with regard to a wastewater discharge licensing query in relation to the new North City Operations Depot for Dublin City Council in Ballymun, Dublin 11.

The project has been granted planning permission by Fingal County Council and during the planning stage, my colleague Craig Scully submitted a pre-connection enquiry to Irish Water (ref. 1147376321). The attached letter was received from Irish Water.

I am now progressing to submit two Waste Licence applications to the EPA for two separate portions of the site:

1. Civic Amenity Site – domestic effluent only
2. DCC Operations Depot – process effluent from gully sucking operations and waste management area within the DCC depot

In addition to the above areas which will be subject to EPA Waste Licencing, there will be a vehicle washing bay generating effluent which we expect will need a Trade Effluent Discharge Licence. The washing bay area as well as

the two Waste Licence areas will all connect into the same foul drainage network and discharge from site at a single point. See attached Drainage Layout drawings which were submitted with the planning application.

We would like to consult with Irish Water as to whether the vehicle washing bay effluent will be required to have a stand-alone TEDL and associated monitoring point which is upstream of the connection to the main foul drainage network or whether we could implement a single monitoring point immediately upstream of the site discharge into the public foul network which would include all foul effluent from the site. It is understood that this would be subject to agreement with the EPA and the control and monitoring of the effluent from the site would be in accordance with the conditions of the Waste Licences issued for the site activities. If agreeable to Irish Water, the above single monitoring point would avoid the additional administration and compliance with a separate TEDL for the vehicle washing bay only.

Please feel free to give me a call on the above. It may be beneficial to arrange a meeting to discuss further.

Regards,

Robert

Robert Hunt BEng(Hons), MSc
Chartered Waste Manager
Senior Project Manager

TOBIN Consulting Engineers
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2017 KPMG Property Industry Excellence Awards Winner
2017 Association of Consulting Engineers of Ireland Award Winner
2017 National Standards Authority of Ireland Award Winner

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Thank you for your attention.

Tá an fhaisnéis á seachadadh dírithe ar an duine nó ar an eintiteas chuig a bhfuil sí seolta amháin agus féadfar ábhar faoi rún, faoi phribhléid nó ábhar atá íogair ó thaobh tráchtála de a bheith mar chuid de. Tá aon athsheachadadh nó scaipeadh den fhaisnéis, aon athbhreithniú ar nó aon úsáid eile a bhaint as, nó aon ghníomh a dhéantar ag brath ar an bhfaisnéis seo ag daoine nó ag eintitis nach dóibh siúd an fhaisnéis seo, toirimisceithe agus féadfar é a bheith neamhdhleathach. Níl Uisce Éireann faoi dhliteanas maidir le seachadadh iomlán agus ceart na faisnéise sa chumarsáid seo nó maidir le haon mhoill a bhaineann léi. Ní ghlacann Uisce Éireann le haon dliteanas faoi ghnímh nó faoi iarmhairtí bunaithe ar úsáid thoirmisceithe na faisnéise seo. Níl Uisce Éireann faoi dhliteanas maidir le seachadadh ceart agus iomlán na faisnéise sa chumarsáid seo nó maidir le haon mhoill a bhaineann léi. Má fuair tú an teachtaireacht seo in earráid, más é do thoil é, déan teagmháil leis an seoltóir agus scríos an t-ábhar ó gach aon ríomhaire. Féadfar ríomhphost a bheith soghabhálach i leith truaillithe, idircheaptha agus i leith leasaithe neamhúdaráithe. Ní ghlacann Uisce Éireann le haon fhreagracht as athruithe nó as idircheapadh a rinneadh ar an ríomhphost seo i ndiaidh é a sheoladh nó as aon dochar do chórais na bhfaighteoírí déanta ag an teachtaireacht seo nó ag a ceangaltáin. Más é do thoil é, tabhair faoi deara chomh maith go bhféadfar monatóireacht a dhéanamh ar theachtairachtaí chuig nó ó Uisce Éireann chun comhlíonadh le polasaithe agus le caighdeáin Uisce Éireann a chinntiú agus chun ár ngnó a chosaint. Fochuideachta gníomhaíochta de chuid Ervia is ea Uisce Éireann atá faoi theorainn scaireanna, de bhun fhorálacha an tAcht um Sheirbhísí Uisce 2013, a bhfuil a bpríomh ionad gnó ag 24-26 Teach Colvill, Sráid na Talbóide, BÁC 1.

Go raibh maith agat as d'aird a thabhairt.

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