FEHILY TIMONEY

CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR THE EXPANSION OF A MATERIALS RECOVERY FACILITY AT CAPPOGUE AND DUNSINK, BALLYCOOLIN ROAD, DUBLIN 11.

Volume 2 – Main Body of the EIAR

Chapter 4 – Description of Existing and Proposed Development

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4. DESCRIPTION OF EXISTING AND PROPOSED DEVELOPMENT

4.1 Introduction

The proposed development is defined broadly in Chapter 1 Introduction. This Chapter describes existing development on-site and the proposed development in detail.

4.1.1 Statement of Competency

This chapter has been written by Richard Deeney, Eoin O' Connor and Chris Cronin.

Richard is a Senior Environmental Scientist with Fehily Timoney and Company (FT) and is Project Manager with responsibility for coordinating the development of this Environmental Impact Assessment Report. Richard has over 10 years' experience in environmental and planning consultancy. Richard has a B.Sc. in Environmental Management and an Advanced Diploma in Planning and Environmental Law with the Kings Inns. He has a vast amount of experience coordinating and completing Environmental Impact Assessment Reports (EIAR's) for a wide variety of development types including waste facilities, tourism development, quarries and manufacturing facilities. Richard has been involved in the completion of numerous 'Existing and Proposed Development' EIAR Chapters for a wide range of proposed development types.

Eoin is a Project Environmental Scientist with Fehily Timoney & Company. He has over 7 years' experience in environmental and waste management consultancy and holds a BSc. in Environmental Science and Health and an MSc. in Environmental Technology. Eoin has a substantial amount of experience completing planning application and a variety of EIAR chapters. He has carried out such work for a variety of project types including materials recovery facilities, waste transfer stations, integrated waste management facilities and anaerobic digestion facilities.

Chris Cronin is a Technical Director with Fehily Timoney and Company. He has more than 40 years' experience providing both contracting and consultancy services on major engineering and civil engineering projects, 18 years of which have been in the design, contract administration and delivery of waste management for Fehily Timoney and Company in Ireland and overseas. Chris has specialist experience in the design, management and operation of waste management facilities. Chris as project Design Engineer was responsible for the preparation of the preliminary design drawings for the proposed development which accompany this EIAR. Chris was responsible for preparing sections of this chapter which related to site infrastructure and construction methodologies. Chris has a vast amount of experience working on EIARs for waste management facilities, including experience in the development of 'Existing and Proposed Development' EIAR chapters.

4.2 Existing Development

4.2.1 Existing Facility

An Existing Site Layout Plan showing the layout of the existing facility is found in Volume 4 of this EIAR (Drawing Reference: P21-150-0100-0001).

The existing site infrastructure consists of:

- Site access.
- Site security.
- Waste reception and processing building.
- External lighting.
- Weighbridge.
- Parking.
- Site services.
- Drainage.
- Rainwater harvesting tank.
- Concrete hardstanding.

Site Access

The existing facility is accessed via a single carriage access road within Cappogue Industrial Park from the Ballycoolin Road. The entrance gate is located on the eastern boundary of the facility.

Site Security

The existing facility is fully enclosed by fencing and comprises fencing atop a concrete wall on the western boundary measuring 4.6 m high, a palisade fence and low wall (3 m high) on the northern boundary, southern and eastern boundaries (2.4 m high). The entrance has an electric gate on the eastern boundary of the facility.

The facility is equipped with a CCTV security camera and alarm system. A third-party security company monitors and manages the security system on behalf of the Applicant.

Facility Building

There is one building at the facility. It is 90m long, 24 m wide and 12.4 m high. The total footprint of the building is 2,108 m^2.

The existing building has a steel portal frame and pre-cast concrete panel structure and pitched roof with a maximum roof height of 12.4 m. The western end of the waste reception and processing building, which consists of a maintenance shed, is at a lower height of 9.4 m. The external envelope comprises a profiled, grey, plastic-coated metal wall cladding on galvanised mild steel sheeting rails on the structural steel portal frame. The building includes 7 no. large steel roller bay doors providing access to the various sections/areas of the building.

The building is subdivided internally into different activity areas comprising:

- C&D reception and processing area:
  - Main recovery area.
  - Storage area and fines screening area.
  - Non-ferrous metal processing area.
- Maintenance shed.
- Administration areas including offices and welfare facilities (ground floor and first floor).

C&D reception and processing areas are located on the ground floor and the floor space is sub-divided into a main recovery area and a storage and fines screening area. The storage and fines screening area are subdivided into two areas; an operational area and a storage / bulking area. A small non-ferrous metals processing area is located at the eastern end of the main recycling area. The main recovery area includes the following processing equipment; a waste in-feed hopper, and trommel, located along northern internal wall of the area and waste bays located to front of the main recovery area adjacent to one of the roller doors.

The storage area and waste fines processing area are subdivided from the main recovery area by an internal wall but with access to the main recycling area. C&D fines are produced and stored for off-site transfer. There is a workshop/maintenance area which is divided from the waste reception and processing area with access for pedestrians between the two areas. The workshop/maintenance area is used for maintenance of mobile equipment and plant.

The floor of the entire building is concrete.

Within the building, there are administration areas on the ground floor and first floor. These comprise:

- Reception area and weighbridge office.
- 4 no. Offices over 2 no. Storeys at the eastern end of the building.
- 2 no. Offices over 2 no. Storeys at the western end of the building which are used as a staff changing room on the upper floor and for storage on the ground floor.
- 1 no. Ground floor staff canteen.
- 2 no. Wc (one located opposite the staff canteen and the other located within the workshop)

A Ground Floor plan for the existing building can be found in Volume 4 of this EIAR (Drawing Reference: P21-150-0100-0002).

External Lighting

External lighting at the facility comprises floodlights affixed to each external wall/façade of the waste reception and processing building. Lights are generally located between at a height of 8 m to 9 m high in order to sufficiently illuminate the external yard areas while being in a downward facing position to mitigate potential light pollution from the site. The lights are operated on a timer and using photocells. The primary purpose of the lighting is for security. Lighting on the southern façade is on from 17:30 to 07:00 and lighting on the northern façade is operated by a photocell when darkness falls.

Weighbridge

A single lane flush mounted electronic weighbridge is located inside the entrance gate at the eastern end of the building. Vehicles are weighed when entering and exiting the facility. The weighbridge is operated from the administration area on the ground floor at the eastern end of the building. There is a traffic light system and a barrier to admit vehicles to the facility, located at the weighbridge.

Parking

Designated car parking for site staff and visitors is provided internally to the front of the site, immediately north and south of the access gate. There are 24 no. car parking spaces including 2 no. disabled parking bays. Of those, 8 no. spaces including 2 no. disabled parking bays are on the eastern boundary north of the entrance gate and 16 no. spaces are located south of the entrance gate. This area is separated from the marshalling yard by a solid, metal panel fence which is located to the rear of the car park.

There is a dedicated waste vehicle parking area within the marshalling yard. This is used for overnight parking of skip trucks and plant.

Site Services

There are no overhead power lines traversing the existing facility, however an overhead power line does traverse the proposed wider development area approximately 30 m to the south of the existing waste facility.

Water is supplied via mains and an onsite rainwater harvesting system and storage tank (40,000 l capacity).

Telecommunications (telephones and internet) are provided by a telecom and internet service provider.

There is a sewer connection to the public sewer network. Sewage from the on-site welfare and canteen is discharged to the public sewer. No process wastewater is generated at the facility.

The storm water overflow system is connected to the public storm water network. The storm water drainage network is discussed in further detail below.

There is a firewater hydrant on the public road just south of the entrance gate and one to the north of the entrance.

Storm Water Drainage

The existing drainage system was designed in compliance with Sustainable Drainage Systems (SuDS). The entire site, with the exception of the entrance gate, is surrounded by a concrete block kerb which contains storm water run-off from the site.

Rainwater falling on the concrete hardstand is conveyed via a drainage network including gulleys to two underground soak pits along the southern boundary of the site. The soak pit system was designed according to BRE Digest 365 specifications and methodology. A storm water emergency overflow system is in place to allow excess surface water to overflow to the public stormwater mains line which runs along the access road leading into Cappogue Industrial Park. The flow rate of this overflow is controlled by a hydro-brake system which prevents the interceptor's capacity of 5L/s from being exceed.

The overflow system has an NSB 3 Class 1 Bypass Oil Separator (Interceptor) downstream of the hydro-brake. The interceptor is inspected regularly, emptied and cleaned when required, as per the current requirements of the waste facility permit. There is no record of flooding on or off-site since the facility was constructed.

There is a roof rainwater harvesting system with an above ground storage tank (9.7m long x 2.8m diameter) with pump.

4.2.2 Existing Facility Operations

Hours of Operation

The hours of operation of the facility i.e. waste acceptance, processing and consignment from the facility are 08:00 to 19:00 Monday – Friday and 08:00 to 14:00 Saturdays. The facility is closed on Sundays and Bank holidays.

Construction and Demolition Waste Acceptance

Construction and Demolition (C&D) waste is accepted at the facility via skip collections from industrial/commercial and household sources. All waste accepted at the facility is collected by the Applicant's dedicated fleet of waste collection vehicles or other approved third party permitted waste collectors.

All waste vehicles enter the facility via the single entrance located on the eastern side of the facility via the weighbridge. The arriving load is weighed and recorded at the weighbridge. The load is inspected by the weighbridge operator before being accepted. Loads that are not suitable due to the waste type, are rejected fully at the weighbridge and returned to the customer or transferred to another one of the Applicant's facilities with appropriate permission to accept the load. A record of all waste accepted at the facility is maintained, including weights and types of wastes.

Waste is accepted at the facility in skips and ro/ro (roll on, roll off) skips. Empty or unused skips are stored within a designated empty skip storage area along the western boundary of the facility.

After waste is accepted by the weighbridge operator, the driver proceeds to the marshalling yard and transfers the waste to the waste intake area. Each load is manually and mechanically sorted to remove bulky materials or to quarantine items as necessary. The bulk materials predominately comprise timber and metal. These are removed to dedicated holding skips for further processing.

Quarantine material is segregated and stored in dedicated skips for removal to a suitable authorised facility. The primary items typically quarantined at the facility are batteries, gas cylinders and paint tins which were placed incorrectly in C&D skips by customers.

Waste Processing

All skip waste is tipped into the Incoming Inspection Area. When material is tipped into the Inspection Area a grab machine is used to separate and inspect the material for unsuitable items. Any unsuitable items detected here is removed and stored in the quarantine area until sufficient quantities are present and is then transferred off site to an appropriate facility. The grab machine removes any large items of metal, greens, hard plastic, mattresses, tyres or timber to their respective storage bays. The remaining material is loaded onto a conveyer which discharges into the trommel to begin the mechanical separation process.

The trommel sorts the material into 3 fractions, a fines fraction and mid side fraction and the large fraction. The fines fall into a bay directly beneath the trommel and are removed using a loading shovel to the fines screening and storage area. The mid-size fraction is bulked in a bay at the front end of the trommel and consigned to another one of the applicant's facilities for further processing. The large fraction falls into a bulking bay at the end of the process and is bulked for consignment to another one of the applicant's facilities where it is further processed.

The fines screening and storage area of the main building also contains a shredder which is the first stage of the process. The material is loaded by a mini digger into the shredder and there are two bays in this building which store processed fines and small concrete rubble. Processed fines, soil and stone and screened fines and processed mixed municipal waste are stored loose in this shed.

Once storage bays are full, the processed materials are transferred to a bulk trailer for removal off site to authorised facilities.

Waste Transfer

All material that is accepted and processed at the facility is subsequently transferred offsite for disposal or recovery. No waste is permanently stored or disposed of at the facility. As described above, once a full load of a specific material has accumulated in the various storage areas of the facility, it is loaded into a bulk trailer for transfer off-site. It is assigned an appropriate List of Waste (LoW)code, is weighed and details of the outgoing load is recorded by the weighbridge operator. All outgoing loads are transported by the Applicant under a waste collection permit and transferred to an appropriately permitted or licensed facility for further processing, recovery, recycling or disposal.

Nuisance Control

A vermin control specialist (Complete Pest Control) is retained to implement vermin control measures on site. The facility is regularly inspected, and the required measures taken if evidence of vermin is found on site. Weekly litter patrols of the site perimeter are undertaken. The marshalling yard is hosed down as required or cleaned using a road sweeper vehicle to mitigate potential dust nuisance. The internal building floor is washed regularly to mitigate potential dust nuisance.

Management of wastes generated onsite

All non-process related wastes generated onsite from the administration areas are placed in commercial wheelie bins (residual, dry recyclables and food waste) and transported to an appropriate authorised facility.

4.2.3 Lands to the South of the Existing Facility

Lands to the south of the existing facility which are within the confines of the proposed development site consist of grassland / scrubland areas. These lands were used historically for agricultural purposes but are now in a state of disuse. A dense area of scrubland and a surface water drainage ditch traverse these lands in a north west to south east direction. This ditch exits the site via an existing surface water outfall to the south east of the site. This outfall is culverted beneath the M50.

An existing overhead powerline which supplies power to the existing facility and a pumping station to the south east of the development site traverses these lands to the south of the existing facility. An ESB Pylon is situated to the south west of the site. An ESB wayleave and a gas wayleave also traverse these lands.

A Site Location Plan showing the existing features present on these lands is found in Volume 4 of this EIAR (Drawing Reference: P21-150-0000-0002).

South-western sections of the site bordering Barn Lodge Grove Road have experienced fly tipping in the past.

4.3 Proposed Development

4.3.1 Proposed Development – Overview

Padraig Thornton Waste Disposal Ltd. T/A Thorntons Recycling intends to apply for planning permission to expand an existing Materials Recovery Facility (MRF). The existing MRF is situated at Unit 1, Cappogue Industrial Park, Ballycoolin Road, Cappogue, Dublin 11. The proposed development will involve the construction and operation of an expanded Materials Recovery Facility at a development site (3.38 ha in size) which falls across the townlands of Cappogue and Dunsink, south of the Ballycoolin Road, Dublin 11.

The proposed expanded facility will accept and process up to 300,000 tonnes per annum (tpa) of waste material, to include:

- 100,000 tpa of residual municipal solid waste (rMSW);
- 50,000 tpa food waste;
- 100,000 tpa construction and demolition (C&D) Waste;
- 50,000 tpa mixed dry recyclable (MDR) waste.

The proposed development will consist of the following:

1. Demolition of one annex of the existing building on-site (226 m^2, 9.46 m in height) and the removal of an existing weighbridge.
2. Clearance of lands to the south of the existing waste facility.
3. Culverting of an existing surface water drain traversing the site.
4. Development of a new second entrance ca. 35 m south of the existing site entrance to accommodate vehicles accessing and egressing the proposed facility.
5. Upgrade and expansion of the existing building on-site, to be referred to MRF 1 (2,659 m^2, to a maximum height of 12.48 m).
6. Development of a new building on-site, to be referred to as MRF 2 (1,735 m^2, to a maximum height of 13.65 m).
7. Development of a new building on-site, to be referred to as MRF 3 (4,320 m^2, to a maximum height of 13.85 m).
8. Development of ancillary infrastructure including:
    a. Advertising signage (8 m x 2 m) on the southern and western façades of the MRF 3 building and on the southern façade of the southern façade of the MRF 1 building.

b. Internal site roads, parking and skip storage,
c. An administration building (272 m^2, to a maximum height of 6.96 m),
d. 2 no. At-grade weighbridges and a weighbridge office (18.5 m^2, 3.3 m in height),
e. An electrical sub-station (23 m^2, 2.98 m in height),
f. A vehicle workshop (519 m^2, to a maximum height of 8.44 m),
g. A vehicle refuelling facility adjoining the vehicle workshop, with an internal 45 m^3 bunded diesel storage tank,
h. A vehicle wash (176 m^2, 5.24 m in height),
i. Perimeter fencing (2.4 m in height), gate access and perimeter landscaping (ca. 6 - 8 m in height),
j. Site services,
k. Surface water management infrastructure, including an overground rainwater harvesting tank (with a floor area of 86.6 m^2 and a capacity of 470 m^3),
l. Fire pumps and a fire-fighting and control system,
m. A traffic management system,
n. An odour abatement system, with a 20 m high stack.

The proposed development will also consist of the following exempted development:

- Development of rooftop photovoltaic solar panels (with a cumulative area of 2,476 m^2).

A Proposed Site Layout Plan depicting the layout of the proposed development is shown in a drawing which accompanies this EIAR (See Drawing Reference P21-150-0200-0001 Proposed Site Layout Plan contained in Volume 4 of this EIAR).

4.3.2 Proposed Demolition and Decommissioning

The following demolition and decommissioning activities will be carried out at the existing facility prior to the construction of the expanded facility:

- An annex situated at the western façade of the existing building on-site (226 m^2, 9.46 m in height) will be demolished.
- Internal walls at the eastern side of the existing building will be removed.
- Existing processing plant and building furnishings will be removed.
- The existing facility fire pump and firewater storage tank will be decommissioned, dismantled and removed from the site.
- The existing facility weighbridge will be decommissioned, dismantled and removed from the site.

4.3.3 Culverting of Existing Surface Water Drain

An existing open surface water drainage ditch traverses the development site in a north west to south east direction. This drain collects surface water generated at the existing site and discharges it into a culvert to the south east of the site which travels below the M50 southward. As part of the proposed development, it is proposed to culvert the open surface water drainage ditch currently traversing the site. This underground drain will consist of a reinforced concrete culvert. Detail on this proposal is shown in the drawing P21-150-0700 series in Volume 4 of this EIAR.

4.3.4 Re-location of Electrical Power Lines

An overhead power line which provides power to the existing facility currently traverses the development site, namely the existing scrublands situated to the south of the existing facility. This line will need to be re-located to accommodate the proposed development, and in particular to accommodate the development of the MRF 3 building.

To facilitate the continued operation of the existing waste facility during the construction phase of the proposed development, this overhead line will be temporarily routed underground to the point it enters the existing facility.

It is then proposed to permanently route this electrical powerline underground at the point it enters the development site boundary to the west. This line will be routed underground across the site in a west to east direction to the point where it meets the foul sewer pumping station situated to the south east of the development site.

Please refer to drawing P21-150-0700-0002 in Volume 4 of this EIAR for detail on the proposal to route this overhead powerline underground.

4.3.5 Proposed Site Infrastructure

Proposed Site Access

The existing site entrance (Entrance 1) will be retained. This entrance will be used by staff for parking their personal vehicles.

A new entrance (Entrance 2) will be developed ca. 35 m south of the existing site entrance. This entrance will be used by cars, heavy goods vehicles (HGV) and refuse collection vehicles (RCV) accessing and egressing the facility. HGV and RCV's vehicles entering the facility will enter / exit the site via 2 no. at-grade weighbridges. Cars using this entrance will access and egress the facility via lanes separate to the lanes used by HGV's/RCV's accessing the site. All access and egress lanes will be controlled by barriers. All traffic will be funnelled into the appropriate lane through the use of signage, road markings and bollards.

Two existing entrances situated along the western boundary of the development site facilitating access to Barn Lodge Grove Road, and one existing entrance at the southern boundary of the development site facilitating access to scrubland adjacent to the M50 will be retained for emergency access / access to services.

Materials Recovery Facility 1

The existing building on-site will be upgraded and expanded to facilitate waste acceptance, storage, bulking and processing. The footprint for the expanded building footprint will be 2,659 m^2. The building will have a maximum height of 12.48 m.

The upgraded and expanded building, to be referred to as MRF 1, will comprise the following elements:

- A reception area;
- A processing area consisting of a processing line and waste storage areas below the processing line;
- A waste storage area with 2 no. Storage compartments;
- An adjacent area for storage and loading of oversized material with 2 no. Fast acting roller shutter doors, one to support access and entry of HGV vehicles and one to support movement of loading machine between buildings MRF 1 and MRF 2;
- A recessed loading area accessed by an internal ramp to facilitate loading of material into HGV vehicles;
- 5 no. Fast acting roller shutter doors located on the southern facade of the building to support access and egress of vehicles;
- 2 no. pedestrian access fire doors located on the eastern flank of the extension;
- 2 no. pedestrian access fire doors located on the western flank of the extension.

MRF 1 is the only proposed building which will accept food waste on-site. MRF 1 will be a fully enclosed waste processing building operating under negative air extraction. An Odour Abatement will serve this building (this system is discussed further in Chapter 11 – Air and Climate, of Volume 2o this EIAR).

This building will co-join the MRF 2 and MRF 3 buildings to form one large overall L-shaped building on-site.

Please refer to drawing P21-150-0301 series in Volume 4 of this EIAR for detail on MRF 1.

Materials Recovery Facility 2

A new building, to be known as MRF 2, will be developed on-site. This building will be used to facilitate the waste storage on-site, and the access, egress and loading of HGV vehicles for export of stored waste materials off-site. The footprint of this building will be 1,735 m^2. The building will have a maximum height of 13.65 m. This building will be located adjacent to and between the MRF 1 and MRF 3 buildings and will in part cover the area where the annex to be demolished is currently situated.

The building will comprise the following elements:

- A dedicated storage area;
- A dedicated loading area;
- 2 no. Doors on the eastern facade of the building to facilitate access and egress to the MRF 2 storage area;
- 1 no. Roller shutter door located on the eastern facade of the building to facilitate access between MRF 1 and MRF 2;
- 6 no. Pedestrian access fire doors located on the northern, eastern and western flanks of the building.

This building will co-join the MRF 1 and MRF 3 buildings to form one large overall L-shaped building on-site.

Please refer to drawing P21-150-0302 series in Volume 4 of this EIAR for detail on MRF 2.

Materials Recovery Facility 3

A new building, to be referred to as MRF 3 will be developed on-site. This building will be used to facilitate the acceptance, processing and storage of waste. The footprint of this building will be 4,320 m^2. The building will have a maximum height of 13.85 m. This building will be located to the south of the MRF 2 building.

The building will comprise the following elements:

- A waste reception area including 4 no fast acting roller shutter doors.
- A materials handling area.
- A processing area consisting of a processing line and storage areas to accommodate separated / processed materials.
- A loading area at floor level.
- 4 roller shutter doors located on the eastern facade of the building
- Pedestrian access fire doors located on the northern, southern, eastern and western flanks of the building.

This building will co-join the MRF 1 and MRF 2 buildings to form one large overall L-shaped building on-site.

Please refer to drawing P21-150-0303 series in Volume 4 of this EIAR for detail on MRF 3.

Advertising Signs

A number of advertising signs will be erected on building facades as part of the proposed development. Advertising signs will be erected on the southern and western façades of the MRF 3 building and on the southern façade of the southern façade of the MRF 1 building.

Elevation drawings showing the location and detail of these advertising signs are provided in Volume 4 of this EIAR. A drawing showing the detail for each 'typical' sign is provided in Volume 4 also (Drawing Reference: P21-150-0700-0009).

Site Road, Parking, and Skip Storage

A reinforced concrete pavement area will be constructed on-site to accommodate vehicle movements and parking on-site.

Internal roads will be provided atop this hard-stand area to facilitate vehicle movements throughout the site including HGV and RCV movements.

The following parking facilities will be provided on-site:

- 7 no. car parking spaces will be provided adjacent to the existing site entrance (Entrance 1) immediately east of MRF 1.
- 21 no. car parking spaces which will be provided in the south eastern corner of the site.
- 8 no. car parking spaces will be provided immediately to the south of MRF 3. 4 no. of these spaces will be provided with EV charging facilities. 4 no. of these spaces will be sized to allow for disability parking.
- 8 no. RCV parking spaces will be provided immediately to the south of MRF 3. These spaces will be dedicated EV charging spaces.

Adequate cycle parking provisions will be provided on-site. 24 bicycle racks will be provided adjacent to the eastern façade of the Administration building. Cyclists arriving on-site will use Entrance 1 to access this location. These bicycle racks will cater to all staff members working at the site.

A granular paved formation will be provided at the southern end of the site. A dedicated truck parking area and dedicated skip storage areas will be situated at this area.

The Proposed Site Layout Plan illustrating all of the above has been provided in Volume 4 of this EIAR (Drawing Reference: P21-150-0200-0001).

Administration Building

An Administration Building will be developed on-site. Staff, offices canteen and welfare facilities for all site staff and HGV/RCV drivers will be provided within this building. The footprint of this building will be 272 m^2. The building will have a maximum height of 6.96 m. This building will be located adjacent to the new site entrance (Entrance 2) and to the south of the MRF 1 building.

The building will consist of a ground floor and an attic space.

The ground floor will comprise:

- An entrance lobby leading to a corridor for access to the building and stairs.
- 2 no. Ground floor offices (1 and 2).
- Locker room and welfare facilities for vehicle drivers.
- Locker room for site based staff.
- Welfare facilities for site based staff.
- Utilities room.
- Canteen.

The second floor attic area will comprise:

- Utility area for water tanks;
- Storage area.

Please refer to drawing P21-150-0304 series in Volume 4 of this EIAR for detail on the Administration Building.

At-grade Weighbridges and Weighbridge Office

HGV and RCV's vehicles entering the facility will enter / exit the site via 2 no. at-grade weighbridges situated adjacent to Entrance 2. A weighbridge office will be centrally located between weighbridges, elevated to be level with incoming HGV cabs to allow the operator to converse with all truck drivers. The footprint of the weighbridge office will be 18.5 m^2. The building will have a height of 3.3 m.

Please refer to drawing P21-150-0305 series in Volume 4 of this EIAR for detail on the weighbridge and weighbridge office.

Electrical Sub-station

Power will be transmitted to the site via a dedicated on-site electrical sub-station. The footprint of this building will be 23 m^2. The building will have a height of 2.98 m. This building will be located to the north west of the site, west of the MRF 3 building.

The sub-station will comprise the following elements:

- Battery storage room;
- Solar meter room;
- Control (site supply) room;
- Control (ESB supply) room.

Each room will be provided with a steel access doors.

Please refer to drawing P21-150-0306-0001 series in Volume 4 of this EIAR for detail on the Electrical Sub-station.

Vehicle Workshop

A vehicle workshop will be constructed on-site south west of the proposed MRF 3 building. This facility will be used for maintenance of the Applicants vehicle fleet and facility plant and equipment. The footprint of this building will be 519 m^2. The building will have a maximum height of 8.44 m.

This building will comprise the following elements:

Ground level:

- Maintenance Area;
- Workshop;
- Store.

First floor:

- Additional open plan storage space will be provided above the ground floor on a mezzanine first floor.

The building will have: 2 no. roller shutter doors located on the south western facade for vehicle access; 2 no. roller shutter doors for vehicle egress on north eastern façade; 4 no. pedestrian access fire doors located on each side of the building.

An interconnecting door will be provided at the vehicle workshop to facilitate movement between the vehicle workshop and the vehicle wash building.

Please refer to drawing P21-150-0307 series in Volume 4 of this EIAR for detail on the vehicle workshop

Vehicle Refuelling Facility

One 45,000 litre diesel tank will be installed in a "lean to" on the south eastern facade of the workshop which will be used for re-fuelling of on-site plant and vehicles. The tanks will be bunded in accordance with bund specification defined in the EPA Guidance Note on the Storage and Transfer of Materials for Scheduled Activities (2004). The bund capacity will be at least 49,000 litres in size (I.e. 110% of the primary containment vessel, in accordance with EPA Guidance. The bund will consist of a reinforced mass concrete bund and will be integrity testing every three years in accordance with EPA requirements. A spill kit will be located adjacent to the re-fuelling area. Drip trays will be used during re-fuelling.

Please refer to drawing P21-150-0307 series in Volume 4 of this EIAR for detail on the vehicle refuelling Facility.

Vehicle Wash

A vehicle wash building will be provided to facilitate cleaning of all vehicles. The building will be located adjacent to the workshop to the west. The footprint of this building will be 176 m^2. The building will have a height of 5.24m.

Washing facilities will include vertical rollers to clean sides of vehicles and a power washer to clean the underside, front and back of vehicles. Washwater will be recycled in a modular treatment system designed to support re-use. Residual washwater will be discharged to sewer.

An interconnecting door will be provided at the vehicle wash building to facilitate movement between the vehicle wash building and the vehicle workshop.

Please refer to drawing P21-150-0308 series in Volume 4 of this EIAR for detail on the Vehicle Wash.

Perimeter Fencing, Gate Access, Lighting and Landscaping

Perimeter Fencing and Gate Access

Existing facility fencing will be retained at the following locations:

- Existing boundary fencing along the north west, north and north east boundaries of the site.
- Existing palisade fencing along the southern and south eastern boundaries of the site.

Existing fencing to the south of the existing facility will be removed to accommodate the proposed development.

All other existing palisade fences surrounding the perimeter of the development site will be replaced with new palisade fencing (2.4 m in height).

New palisade fencing (2.4 m in height) will be provided along the western boundary of the site immediately adjacent to MRF 3 .

A new concrete block wall with palisade fencing atop it (2.4 m in height) will be installed between Entrance 1 and 2.

Palisade fencing fixed atop a gabion wall (2.4 m in height) will be installed along the southern eastern boundary of the site just south of the proposed weighbridges.

Twin leaf heavy duty galvanized lockable steel gates will be provided at Site Entrance 2.

Please refer to drawing P21-150-0400 series in Volume 4 of this EIAR for detail on the perimeter fencing and gate access.

Lighting

Lighting will be provided at yard areas on-site to luminate external areas on-site during hours of darkness and for security purposes. The lighting design should follow BCT and ILP 2018 best practice guidance and should meet the following criteria.

- Incorporate specialist bollard or low-level downward directional luminaries;
- Where low-level downward directional luminaries are not appropriates, installation of luminaries with warm spectrum LEDs (<2700 Kelvin) to reduce blue light, with peak wavelengths higher than 550nm;
- Mounted luminaires should not tilt upward, with an upward light ration of 0% and with good optical control;
- External security lighting should be set on motion-sensors and short (1 min) timers;
- Incorporate cowls to lighting throughout the proposed development site to spill slight away from the site boundaries;
- Maximise the separation distance between light mast locations and off-site areas including residences, roads (e.g. the M50) and vegetated features, such as surrounding treelines and the adjacent green fields, where possible.

Landscaping

Native landscaping is currently present along the northern and eastern boundaries of the existing waste facility site. It is proposed to establish native landscaping along the western, southern and south eastern sections of the development site to minimize westerly and southerly views of the site. This landscaping will merge with the landscaping currently present at the existing waste facility. In total 651 m (linear length) of additional landscaping (ca. 6 - 8 m in height) will be provided around the site boundary. The landscaping to be provided will consist of a mixture of native species that are prevalent in the immediate area. The function of the proposed mitigation planting is primarily for screening and softening of the proposed development, but it will also enhance the ecological corridors within the surrounding area.

Please refer to the Landscape Mitigation Plan drawing in Appendix 15.2 of in Volume 3 of this EIAR for detail on landscaping proposed as part of the proposed development.

Site Services

Site services will be provided on-site as part of the proposed development. Detail on these site services is provided below and shown in the drawing P21-150-0700 series in Volume 4 of this EIAR.

A dedicated service corridor for underground services will be provided for the following on-site services: Gas, electrical power, water supply, firewater mains, wash water, domestic wastewater, firewater and telecommunications.

Gas Supply

A gas connection will be made from the site to the public gas main situated ca. 50 m north east of the MRF 1 building at the Cappogue Industrial Park access road. Gas will be distributed from this main to site buildings as a fuel source for central heating or fuel for miscellaneous services (heating water or other).

Electrical Power

Once the existing overhead powerline is routed underground as planned, a dedicated three phase power supply will be provided into the proposed substation. Thereafter electrical supply to site will be a via underground services to dedicated internal distribution panels within each facility building. The proposed rooftop solar panels will be connected to the proposed sub-station and will serve to provide a proportion of the facility's energy needs.

Water Supply

A new mains water supply shall be provided for the facility. A water supply connection will be made to the public water supply mains situated ca. 50 m north east of the MRF 1 building at the Cappogue Industrial Park access road. This potable water supply shall be connected to all buildings and to the proposed fire water storage tank.

Firewater Mains

A dedicated fire water main will be provided around the proposed service corridor to supply firewater to fire suppression systems situated in site buildings and external fire hydrants.

Washwater and Domestic Wastewater

Process wash water, domestic wastewater and truck washwater generated on-site will be discharged to public gravity foul sewer via a proposed connection at Entrance 2.

Process washwater from wash down of waste process and storage areas in MRF 2 and 3 will be directed to and stored in a below ground 'dirty water' storage tank situated at the south east corner of building MRF 3. Discharges to foul sewer from this tank will be via a submersible pump and a rising main into the proposed new foul sewer connection. at the site. This tank will be integrity tested once every three years in accordance with EPA requirements. Washwater from wash down of waste process and storage areas in MRF 1 will be discharged directly to foul sewer.

Domestic wastewater generated in sanitary facilities at the Administration Building and MRF 3 on-site will be directed to the proposed new foul sewer connection. via foul pipe. The foul line from the Administration Building will be gravity fed. Discharges to foul sewer from the MRF 3 building will be via a submersible pump and a rising main into the proposed new foul sewer connection.

Truck washwater generated at the truck wash will be discharged via a submersible pump and a rising main into the proposed new foul sewer connection.

An automatic shut off valve will be provided at the foul sewer discharge point on-site.

More detail on the proposed drainage for the development is provided in Chapter 10 – Surface Water and Hydrology, of this EIAR.

Fire Water Storage

In the event of a fire at waste process or storage areas at the proposed facility, contaminated firewater generated areas will be retained on-site by using the following retention structures:

- The internal floors of MRF 1, MRF 2 and MRF 3.

These buildings will have an impervious concrete perimeter and access points will be suitably ramped/raised, which will allow the buildings to act as retention structures during a fire event.

A fire quarantine area will be situated at the hard stand yard in front of the MRF 3 building. This area will be utilised by the applicant in the event of fire. Waste affected by heat / high temperatures will be hauled to this area in order to prevent fire spread on-site during an emergency event. Firewater will be applied onto waste stored in this quarantine area to suppress waste material affected by fire and reduce the temperature of the waste materials. In the event of a fire, drainage at this dedicated fire quarantine area will be retained through the utilization of emergency slam shut valves. The slam shut valves will be automatically triggered through the activation of the on-site fire alarm. The valves can also be manually shut. When the slam shut valves are closed, and when the stormwater drainage system serving the fire quarantine area is sealed, contaminated firewater generated and accumulating in this area will be retained in this area initially, before flowing into the MRF 3 building by way of a fall.

Telecommunications

The proposed service corridor will be utilized for the laying of telecommunication lines. Telecommunication services will be provided to all buildings on-site.

Surface Water Management Infrastructure

Surface water management infrastructure will be provided on-site as part of the proposed development. Detail on this surface water management infrastructure is provided below and shown in the drawing P21-150-0700 series in Volume 4 of this EIAR.

More detail on the proposed drainage for the development is provided in Chapter 10 – Surface Water and Hydrology, of this EIAR.

It is proposed to construct three surface water management system zones on-site to manage stormwater generated at the proposed facility, identified as: Zone 1, Zone 2 and Zone.

Zone 1 will serve the concrete paved yard area on-site.

Zone 2 will serve non-paved yard area situated to the south of the site.

Zone 3 will serve all building roof areas on-site.

An automatic shut off valve will be provided at the ultimate surface water drainage discharge point on-site.

Further detail on each of the zones listed above is provided below.

Zone 1 - Surface Water Management System for Concrete Paved Yard Area

Areas surrounding MRF 1, MRF 2, MRF 3, the Administration Building, the Vehicle Workshop and the Vehicle Wash will be covered with a concrete hard stand. Surface water run-off from these hard stand areas will:

- Be directed to and attenuated in a below ground AquaCell stormwater infiltration and attenuation system, with a plan area c. 600 m^2 in size.
- Discharged via a by-pass hydrocarbon retention interceptor Class 1 into the existing surface water outfall drain at greenfield run-off flow rates.

Zone 2 -Surface Water Management System for Non Paved Yard Storage Area

Yard areas to the south of the site will be surfaced with a permeable 'granular fill' formation. Surface water run-off generated in these areas will:

- Be directed to and attenuated in a below ground AquaCell stormwater infiltration and attenuation system, with a plan area c. 300 m^2 in size.
- discharged via a by-pass hydrocarbon retention interceptor Class 1 into the existing surface water outfall drain at greenfield run-off flow rates.

Filter perimeter drains will be provided around these yard areas to support surface water runoff discharge to the below ground modular storage attenuation system.

Zone 3 - Surface Water Management System for Building Roof Areas

All rainwater collected from roof areas of buildings will drain to a proposed rainwater harvesting tank. The volume of this tank is 470 m^3. 350 m^3 of this volume will be utilized for water supply on-site. 120 m^3 of this volume will utilized to provide for firewater needs in the event a fire on-site. This fire water supply will be augmented by mains water supply.

Overflow stormwater from this tank will be:

- Be directed to and attenuated in a below ground AquaCell stormwater infiltration and attenuation system, with a plan area c. 800 m^2 in size.
- Subsequently directed to the Zone 2 Surface Water Management System.

Fire Pumps and Fire Fighting and Control System

A fire-fighting and control system will be developed on-site as part of the proposed development. This system will comprise a Merlin Fire Protection System and will be a modular system housed in a bespoke container. This system will contain its own separate firewater storage tank.

The container will be located on the north west corner of building MRF 3 adjacent to the perimeter fence.

The fire-fighting system will be supplied by dedicated fire water contained in the proposed rainwater harvesting tank on-site. The system will be augmented by mains supply also.

In the event of a fire, the fire water system will be pressurised automatically and discharge pipe work will deliver pressurised fire water via a fire water main to building sprinkler systems and/or fire water hydrants as required.

Traffic Management System

HGV/RCV traffic entering the facility via the (new) facility Entrance no. 2 will use a dedicated lane for trucks. These trucks will pass over the incoming weighbridge. Dedicated site roadways and turning cycles will be provided to ensure truck vehicles using the site can safely access all areas of the site that they need to access, including waste reception area, the dedicated truck parking areas, the vehicle workshop and vehicle wash. Trucks will then exit the site via a dedicated exit lane for trucks. Prior to the point of exit, these trucks will pass over the outgoing weighbridge.

Cars will be able to access the site via Entrance 1 or Entrance 2. When accessing or egressing the site via Entrance 2, cars will use separate, dedicated access and exit lanes. Dedicated roadways will be provided on-site to ensure cars can safely access all areas of the site they need to access.

All incoming and outgoing lanes will be controlled via barriers.

Pedestrian walkways and crossings will be provided on-site to ensure all pedestrians can traverse the site and travel between parking areas and buildings safely.

Odour Abatement System

A new odour abatement system will be installed external to the MRF 1 building on its eastern facade. The abatement system will utilise annular carbon absorbers, or similar media, to treat potentially odorous air within the new waste reception and existing MRF 1 building. The odour system shall maintain negative aeration within the building such that building air is extracted and passed through the system, prior to discharge to the atmosphere via a 20 m stack. While final specification of the system shall be undertaken during the detailed design stage of the facility, the system will comprise two carbon absorbers (or similar media), a pulse jet filter, exhaust fan(s), 1 no. exhaust stack, relevant ductwork and a single control panel. The stack will be c. 1.3 m in diameter and 20 m in height and shall be an off-white or similar neutral colour, to mitigate potential visual impacts.

Rooftop Photovoltaic Solar Panels

Roof mounted solar panels covering a total cumulative area of 2,476 m^2 will be mounted atop western slope of the MRF 3 building roof and on the proposed extended portion of the MRF Building 1.

PV panels were initially planned to be mounted on the eastern slope of the roof of the proposed Building MRF 3. A glint and glare assessment was undertaken which determined that in theory and without the presence of intervening structures in place in reality, the array on the eastern slope of the roof of MRF3 could impact the air traffic control tower at Dublin Airport. Out of an abundance of caution the proposed PV panel array was re-designed specifically to entirely remove panels from the eastern slope of the roof of the proposed Building MRF 3 to ensure there is no potential for any glint and glare effects to occur at the ATCT at Dublin Airport. The glint and glare assessment determined that the arrays on the western slope of MRF 3 and MRF 1, as proposed, will not impact on any receptors at Dublin Airport. This glint and glare assessment is contained in Appendix 4.1 of Volume 3 of this EIAR.

This installation will provide power supply to the site. It is not proposed to generate excess power and distribute it to the public electricity grid.

The following ancillary solar related infrastructure will also be provided:

- Inverters;
- Ancillary cables, break and isolator;
- EGIP controller;
- Access ladders and fall protection.

Drawings showing the layout and elevation detail of the proposed rooftop solar panel installations are provided in Volume 4 of this EIAR.

A drawing showing typical detail for the proposed solar panels for the site is shown in Volume 4 of this EIAR.

4.4 Proposed Facility Operations

4.4.1 Proposed Facility Activities

The following waste activities will be carried out at the proposed facility:

- The acceptance, processing and onward transfer of 100,000 tpa of rMSW;
- The acceptance, bulking and onward transfer of 50,000 tpa of food waste;
- The acceptance, processing and onward transfer of 100,000 tpa of C&D waste;
- The acceptance, bulking and onward transfer of 50,000 tpa of MDR waste.

All waste acceptance, storage and processing activities will be carried out inside the proposed buildings. No waste storage or processing will be carried out externally.

In addition to the planning permission application being made for the proposed development, a separate application is being made to the EPA by the applicant for the required Industrial Emissions licence for the facility.

The relevant classes of the Third Schedule (Disposal Activities) & Fourth Schedule (Recovery Activities) of the Waste Management Act 1996 (as amended) that are applicable to the proposed activities at the facility are shown in Table 4-1 and Table 4-2 respectively. While the activities at the proposed facility will primarily relate to recovery activities, there may be operational circumstances where rMSW may need to be directed to a disposal facility rather than a recovery facility, hence the inclusion of Third Schedule activities herein.

Table 4-1: Disposal Activity Classes, in accordance with the WMA 1996, as amended

Third Schedule Waste Disposal Activities	
Class D13	Blending or mixing prior to submission to any of the operations numbered from D 1 to 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12)
Proposed Activity Description	*This activity relates to the processing of waste at the facility prior to onward transfer to an offsite waste management facility for disposal*
Class D15	Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).
Proposed Activity Description	*This relates to the storage of waste accepted at the site prior to onward transfer to an offsite waste management facility for disposal*

Table 4-2: Recovery Activity Classes, in accordance with the WMA 1996, as amended

Fourth Schedule Waste Recovery Activities	
Class R3	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).
Proposed Activity Description	*This relates to the reclamation of organic substances including organic fines, paper and cardboard from waste during on-site processing.*
Class R4	Recycling/reclamation of metals and metals compounds
Proposed Activity Description	*This activity relates to the recovery of ferrous and non-ferrous metals from waste during on-site processing.*
Class R5	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.
Proposed Activity Description	*This activity relates to the recovery of plastic and construction and demolition waste inorganics from waste during on-site processing.*
Class R12	Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)
Proposed Activity Description	*This activity relates to the processing of waste at the facility prior to onward transfer to an offsite waste management facility for recovery/recycling.*
Class R13.	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of "collection" in section 5(1)), pending collection, on the site where the waste is produced)
Proposed Activity Description	*This relates to the storage of waste accepted at the site prior to onward transfer to an offsite waste management facility for recovery/recycling.*

The proposed activities will also fall within the remit of the Industrial Emissions Directive (2010/75/EU), as implemented by the European Union (Industrial Emissions) Regulations (S.I. 138 of 2013), which amend the First Schedule of the 1992 EPA Act.

Table 4-3 outlines the proposed activities at the proposed facility in accordance with the revised First Schedule of the EPA Act. The processing of rMSW waste for onward energy recovery (Class 11.4 (b)) has been assigned as the main class of activity, given that a Class 11.1 waste management activity is only an associated activity and should not be assigned as a main class of activity.

Table 4-3: Proposed Activities in accordance with the Industrial Emissions Directive 2010/75/EU as per Revised First Schedule of EPA Act 1992 to 2013

Proposed Activity	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, (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply): (i) biological treatment **(ii) pre-treatment of waste for incineration or co-incineration** (iii) treatment of slags and ashes (iv) treatment in shredders of metals waste, including waste electrical and electronic equipment and end-of-life vehicles and their components
Proposed Activity Description	*This activity relates to the processing of rMSW waste for onward transfer to an offsite energy recovery facility for incineration. At an acceptance rate of 100,000 tonnes per annum, the daily threshold of 75 tonnes per day will be exceeded.*
Relevant Class	11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required. (Is an industrial emissions directive activity, in so far as the process development or operation specified in 11.1 is carried on in an installation connected or associated with another activity that is an industrial emission directive activity)
Proposed Activity Description	*This relates to the processing of waste for ultimate recovery or disposal at a facility that is associated with another waste activity that is an is an industrial emission directive activity (Class 11.4 (b)).*

4.4.2 Proposed Waste for Acceptance and Facility Throughput

The following table outlines the nature and quantity of waste material to be accepted at the facility. No waste material classed as 'hazardous' will be accepted at the facility.

Table 4-4: Waste to be accepted at the proposed facility

Waste Type	List of Waste codes	Quantity (tonnes per annum)	Source
Residual Municipal Solid Waste (rMSW)	20 03 01, 20 01 07, 20 01 38, 20 01 39, 20 01 40, 20 03 07.	100,000	Applicant's own collection, 3rd party deliveries to site
Construction & Demolition (C&D) Skip Waste	03 01 05, 17 01 01, 17 01 02, 17 01 07, 17 02 01, 17 02 02, 17 04 07, 17 05 04, 17 08 02, 17 09 04, 19 12 02, 19 12 04, 19 12 07, 19 12 12.	100,000	Applicant's own collection, 3rd party deliveries to site
Mixed Dry Recyclables (MDR)	20, 03 01, 15 01 01, 15 01 02, 15 01 03, 15 01 06.	50,000	Applicant's own collection, 3rd party deliveries to site
Food Waste (Brown Bin)	20 01 08, 20 02 01.	50,000	Applicant's own collection, 3rd party deliveries to site
	Total Facility Throughput	**300,000**	

4.4.3 Proposed Site Operations

Hours of Operation

The proposed facility will have the following hours of operation:

- hours of operation of the facility for waste acceptance, handling and consignment - 00:00 to 00:00 Monday to Sunday inclusive
- hours of operation of the facility for waste processing – 07:00 – 23:00 Monday to Sunday inclusive.

While the facility is proposed to operate on a 24/7 basis, it is expected that the vast majority of waste acceptance, handling and consignment will occur during daytime and evening hours. Waste processing at fixed processing plant will not take place during the night.

Management and Staffing

It is anticipated that the following staff will be employed during facility operations:

- 1 no. facility manager;
- 2 no. site foreman;
- 3 no. weighbridge operators;
- 4 admin / office staff;
- 6 no. loading shovel drivers;
- 8 no. general operatives.

Waste Acceptance, Processing and Handling

It is envisaged the following waste activities will be carried out at the proposed development.

Waste Acceptance

All waste accepted at the facility will be subject to waste acceptance procedures which will be outlined in the facility's environmental management system (EMS) and approved by the EPA. The waste acceptance procedures will involve the use of an integrated waste software system.

When waste arrives on-site, it will be weighed at the weighbridge and the vehicle registration number and origin of the load entered into the software system. A weight docket will be printed for each waste load. The waste vehicle will then be directed to the appropriate waste reception area on-site.

rMSW Processing and Onward Transfer

Vehicles carrying household and commercial rMSW waste arriving on-site will reverse into MRF 1 via one of three dedicated fast acting roller doors. rMSW waste will then be tipped at the Waste Reception Area situated in MRF 1. A loading shovel will be used to move waste from an inspection area to an acceptance area. From here, a grab loader will be used to load the material into the rMSW process line. The rMSW waste will pass through a screen which will separate organic fines from the material. The rMSW waste will then pass under a magnet which will extract ferrous metals from the material. The remaining oversize material will then be conveyed to the oversize material storage area. Once this material accumulates in sufficient quantities, it will be loaded onto HGV using a loading shovel at the dedicated recessed loading bay situated in MRF 1. The HGV will exit the building via a ramped access and fast acting roller shutter door. The material will be consigned offsite for further appropriate treatment.

Food Waste Bulking and Onward Transfer

Vehicles carrying food waste arriving on-site will reverse into MRF 1 via one of two dedicated fast acting roller doors. Food waste will be tipped and bulked in one of two dedicated storage bays situated in the MRF 1 building. Once a sufficient quantity of this waste accumulates, it will then be reloaded onto HGV using a loading shovel at the dedicated recessed loading bay situated in MRF 1. The HGV will exit the building via a ramped access and fast acting roller shutter door. The material will be consigned to an offsite composting facility or anaerobic digestion facility.

C&D Processing and Onward Transfer

Vehicles carrying C&D waste arriving at the facility will reverse into the MRF 3 building via one of three dedicated fast acting roller doors. C&D will be tipped at a dedicated waste reception area situated in MRF 3. A loading shovel will be used at this point to gather the waste in this reception area. This waste will be manually sorted and segregated as necessary using a grab loader and loading shovel. The material will then be fed into the C&D process line using a grab loader.

The material will pass through a process line that includes the following components:

- Pre-shredder;
- Long object separator;
- Primary and overband magnets;
- Waste screen;
- 'flip flop' screen;
- Drum separators;
- Ballistic separator;
- Optical sorter;
- QC picking stations.

Separated and processed materials will be deposited in various storage bays underlying the process line and located along the northern wall of MRF 3 as appropriate. These materials will then be bulked and loaded onto HGVs at a dedicated at-grade loading area inside MRF 3. The HGV will exit the building via a dedicated egress fast acting roller shutter door. The material will be consigned to an offsite to an offsite waste recovery / recycling facility, as appropriate.

MDR Waste Processing, Bulking and Onward Transfer

Vehicles carrying household and commercial MDR arriving at the facility will reverse into the MRF 2 building. MDR will be tipped at a dedicated storage area situated in in this building. This material will then be bulked and reloaded into HGV's using a loader for onward transfer to off-site waste management facilities.

Waste Quarantine

A dedicated waste quarantine area will be provided within MRF 2 building for the temporary storage of wastes that are deemed not suitable for processing, prior to its removal off site and transfer to an appropriate facility for disposal or recovery.

Proposed Processing Plant

In addition to the processing line plant reference already, the following mobile and stationary plant and equipment will be used during waste processing operations:

- Conveyors (feed, metering, incline & in-floor) – for in line material conveyance;
- Grab loaders (electric) – for material handling and loading;
- Loading shovels – for material handling and loading;
- Forklifts – for the movement of materials.

4.4.4 Facility Licensing, Operational Controls and Environmental Controls

The proposed facility falls within the remit of the Industrial Emissions (IE) Directive (2010/75/EU), as implemented by the European Union (Industrial Emissions) Regulations (S.I. 138 of 2013), which amends the First Schedule of the 1992 EPA Act. As such, an Industrial Emissions (IE) licence application will be submitted to the EPA for the proposed facility and the facility will operate under an IE licence.

The IE licence will be enforced by the EPA and will control the following:

- Emission Limit Values for emissions to air and storm water;
- Monitoring requirements for emissions;
- Resource use and energy efficiency;
- Waste management control documentation;
- Waste acceptance and records;
- Storage and transfer of substances;
- Changes to operations and the physical fabric of the facility;
- Facility management including the requirement for an environmental management system (EMS);
- Accident prevention and emergency response including fire water retention; and,
- Operational controls.

As part of the IE licence application to the EPA, it is necessary to identify how the procedures and processes to be implemented at the proposed development will be considered as Best Available Techniques (BAT). The relevant BAT processes are identified in a range of documents known as BAT Conclusions (CID) or where these have not been adopted by the Commission of the European Union, the conclusions on BAT from the relevant BAT reference documents (BREF).

Documents considered as part of the BAT assessment undertaken as part of the IE licence application include:

- European Commission – Reference Document on Best Available Techniques for Energy Efficiency (BREF Document), 2009;
- EPA – BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery – December 2011;
- European Commission - Best Available Techniques (BAT) Reference Document for Waste Treatment (BREF Document), 2018;
- Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council, 2018;
- European Commission - JRC Reference Report on Monitoring of Emissions to Air and Water from IED Installations, 2018.

While the above documents outline a significant number of BAT references the following summarises those most relevant to the proposed development:

- Implementation of an EMS and an energy management system.
- Adopting and implementing waste acceptance procedures at the facility.
- Recording and inspecting incoming wastes.
- Recording outgoing wastes.
- Maintaining a dedicated waste quarantine area.
- Having a sealed drainage system.
- Recording and reporting on energy usage.
- Storing waste in an appropriate manner.
- Handling odorous materials in an enclosed building connected to an odour abatement system.
- Implementation of robust environmental monitoring programme involving water monitoring, air quality monitoring, and noise monitoring.
- Bunded storage of hazardous material (i.e. Fuel in the case of this facility).

Pest Control

A vermin control specialist will be retained to implement vermin control measures on site. The facility will be regularly inspected and the required measures taken if evidence of vermin is found on site.

Regular litter patrols of the site perimeter will also be undertaken at the site and a road sweeper vehicle will be contracted to visit the site on a regular basis to clean down all hardstanding surfaces

Management of Waste Generated On-site

All non-process related wastes generated onsite (E.g. mixed municipal waste, food waste, mixed dry recyclables from administration building, weighbridge office etc.) will be managed by the Applicant themselves and will be taken off0site for treatment at one of their other authorized waste management facilities.

Monitoring

The Environmental, Health and Safety (EHS) Team will carry out the sampling and monitoring programme in accordance with the facility's prospective EPA licence. The EHS will have responsibility for the implementation of the monitoring programme. Samples will be collected and transported under chain-of-custody to a laboratory.

Management of Truck Parking On-site

A dedicated truck parking area and a dedicated skip storage area will be situated at the southern portion of the site. Truck parking in this area will be managed by the Applicant to ensure that truck activities do not present a health and safety risk or cause any noise nuisance. A dedicate truck circulation route will be maintained in this area.

A vehicle bankman will be given the responsibility for directing truck movements and parking in this area. Truck driver awareness and training will be provided to all drivers to ensure they are aware of the layout and circulation routes in this area. Signage will be provided to guide all drivers using the area. The applicant will adopt a strict 'no idling' policy on-site.

4.4.5 Mobility Management Plan

The Applicant intends implementing a Mobility Management Plan during the operational phase of the proposed development. This plan will encourage the use of other modes of transport other than private, namely cycling, walking and public transport. The Plan will create awareness among site staff of the environmental cost associated with private car use, and will promote and support sustainable travel patterns at a site-specific level.

4.5 Construction Phase Methodology

4.5.1 Construction Programme and Phasing

It is estimated that the construction phase of the proposed development will take 12 months to complete.

The applicant intends on continuing operations at the existing waste facility building whilst constructing the proposed MRF 3 building, and proposed site infrastructural elements at the southern sections of the site, outside the boundary of the existing waste facility site.

Once the MRF 3 building and site infrastructural elements at the southern sections of the site are constructed, existing waste facility operations will cease and the existing building will be upgraded and expanded to become MRF 1, and MRF 2 will be constructed, as proposed. Operations at MRF 3 will commence whilst MRF 1 and MRF 2 are being constructed.

4.7.2 Hours of Work

Construction work will generally be carried out during daylight hours. Construction work will be confined to the following times (unless otherwise agreed with the Local Authority):

- 07:00-19:00hrs on weekdays and 08:00-14:00hrs on Saturdays with no working on Sundays or Public Holidays.

4.5.2 Construction Elements

The key construction elements (listed in approximate chronological construction order) will be as follows:

- Advance works;
- Development of temporary construction site compound;
- Site clearance;
- Site earthworks;
- Installation of site services and surface water management systems;

- Construction of site hard stand and granular formation surfaces;
- Construction of site buildings and structures;
- Installation of additional ancillary site infrastructure and elements.

Advance Works

The following works will need to be carried out prior to construction of built elements on-site:

- Demolition and decommissioning of existing facility elements.
- The existing overhead electrical powerline will need to be routed underground.
- The open surface water drainage ditch traversing the site will need to be culverted.

These works will be one of the first elements of construction to be undertaken onsite and the remaining works elements will be programmed to occur only when sign off and approval of the advance works is completed.

A description of the proposed advanced works is provided below.

Demolition and Decommissioning of Existing Facility Elements

The following demolition and decommissioning activities will be carried out at the existing facility:

- An annex situated at the western façade of the existing building on-site (226 m^2 in area) will be demolished.
- Internal walls at the eastern side of MRF 1 will be removed.
- Existing processing plant and building furnishings will be removed.
- The existing facility fire pump and firewater storage tank will be decommissioned, dismantled and removed from the site.
- The existing facility weighbridge will be decommissioned, dismantled and removed from the site.

These demolition and decommissioning activities will be carried out using a combination of cranes scissor lifts, telescopic booms, excavators and dumpers. Articulated trucks will haul decommissioned plant and equipment off-site.

Re-location of Existing Overhead Electrical Powerline

The re-routing of existing overhead power lines will be carried out by the ESB and will involve the following:

- Excavation of trenches using a tracked excavator;
- Temporary stockpiling of excavated material using dump / road trucks;
- Laying of ducts / cables;
- Backfilling of excavated material to fill trenches to the desired level.

Culverting of the Existing Open Surface Water Drainage Ditch

The culverting of the existing open surface water drainage ditch will involve the following:

- Damming of the existing drainage ditch at the point that it enters the development site.
- Pumping of water from this point to the point the drainage ditch exists the development site.
- Excavation of culvert trench using a tracked excavator.
- Laying of pre-cast culvert pipe using telehoists or cranes, and connecting the culvert traversing the site with the drainage ditch at the point that the channel enters the site and exists the site.
- Backfilling of excavated material to fill excavated areas.
- Un-damming of the drainage ditch at the point it enters the development to allow the free flow of water through the laid culvert traversing the site and into the drainage ditch at the opposite end of the site.

These works will be carried out in accordance with the requirements of Inland Fisheries Ireland's Guidelines on the Protection of Fisheries during Construction in and Adjacent to Waters.

Development of Temporary Construction Site Compound

A temporary construction compound will be required for the duration of the construction works. It will consist of a hardcore area surrounded by secure fencing, comprising site office, canteen, temporary toilet facilities, storeroom, materials storage and staff parking areas. Fuel/oil storage areas will be bunded in accordance with best practice.

Temporary toilet facilities will consist of temporary 'portaloo' type chemical toilets located within the construction site compound and/or a dedicated welfare unit connected to temporary storage container for temporary storage and onward disposal of waste from toilets and wash facilities.

A tracked excavator will be used for formation of hard standings with truck mounted cranes used for unloading site containers and support infrastructure.

Site Clearance

Site clearance will comprise:

- Removal of any leftover fly tipped waste present at lands contained within the development site to the south of the existing facility;
- Removal of vegetation present on-site;
- Stripping and temporary storage of topsoil for re-use in landscaping works.

Any leftover fly tipped waste present at the development site will be cleared from the site and dispatched to an appropriately authorized waste management facility.

Vegetative and top-soil stripping will be carried out by a tracked excavator and dump trucks will be used to transport materials to stockpiles.

Site Earthworks

Earthworks will then be carried out on-site. Overburden soils will be excavated to the formation levels required for foundations, below ground tanks and below ground services.

Excavated material will be reutilized as backfill on-site, where feasible. Imported granular fill material will be used to augment backfill, as necessary.

Bulk earthworks will be carried out by a tracked excavator and dump trucks will be used to transport materials to stockpiles.

The materials balance for the proposed development, which is based on the planning design undertaken to date and preliminary site investigation results, is outlined in Table 4-5 Materials Balance:

Table 4-5: Materials Balance

Material Description	Required Excavation (m^3)	Excavated Material Available for Filling (m^3)	Required Fill (m^3)	Estimated export (m^3)
Topsoil	3,960	792	-	3,160
Subsoil	10,560	3,960	-	6,600
Imported clause 6A	-	-	2,880	-
Imported clause 6F1	-	-	12,960	-
Imported clause 804	-	-	5,280	-

Installation of Site Services and Surface Water Management Systems

The following site services will be installed on-site:

- GNI will lay a gas connection pipeline to the existing gas mains situated 50 m north east of the site at the access road to Cappogue Industrial Park.
- Irish Water will lay water supply and wastewater connection pipelines to existing water supply and foul sewer mains situated at the access road to Cappogue Industrial Park.
- The sites foul drainage network and the 'dirty water' tank will be installed by the Applicant.
- The sites surface water drainage networks, attenuation tanks, interceptors and all other surface water drainage features will be installed by the Applicant.
- Cable trenches, ducting and pipework associated with other services will be installed by the Applicant.

All works above will involve a combination of the following:

- Breaking of hard-standing areas using a hydraulic breaker (where necessary).
- Excavation of trenches using a tracked excavator.
- Temporary stockpiling of excavated material using dump / road trucks.
- Laying of site services, using telehoists or crane, where necessary.
- Backfilling of excavated material to fill trenches to the desired level.

Construction of Site Hard Stand and Granular Formation Surfaces

Concrete paved areas will be poured using a concrete pump feed by imported ready mixed concrete. Concrete will arrive to site in concrete mixing trucks which will empty to the concrete pump.

Workers will direct the flow of pumped concrete as required and the concrete will be levelled in place by a suitable level machine or screed. Vibratory screeds will be used to ensure the concrete is fully compacted. Post setting of the concrete a power float device will be used to achieve the desired concrete finish.

The concrete pavement will be jointed to control cracking. The slab will bear on a layer of compacted granular fill. Services and drainage in the yard area will run underneath the slab.

The concrete slabs will be laid to falls and surface water drainage will be by means of gullies or drainage channels.

Granular fill material will be laid at the southern section of the site. This fill will be laid atop a compacted cohesive fill. This granular formation will be graded to facilitate surface and sub-surface drainage.

A combination of tracked excavators, concrete mixer trucks and dump / road trucks will be utilized for material handling and transfer when laying site surfaces.

Construction of Site Buildings

The following buildings will be constructed on-site as part of the proposed development.

- MRF 1.
- MRF 2.
- MRF 3.
- Electrical Sub-station Building;
- Administration Building;
- Vehicle Workshop and Refuelling Building;
- Vehicle Wash Building.

Broadly, these buildings will be constructed in the following manner.

- Excavation will take place using tracked excavators.
- Building foundations will be laid.
- Backfilling of excavated material and imported fill will take place.
- Floors will be constructed using steel or fibre reinforced concrete founded on a suitable depth of compacted granular fill. Concrete will be pumped into place and suitably compacted.
- Drainage channels will be constructed within concrete floors of MRF 1, MRF 2 and MRF 3, as necessary.
- Recessed cable channels will be provided within the Electrical Sub-station Building.
- Rising block walls and 'push walls' will be constructed, as necessary. These walls will be reinforced by steel bars and fixers, as necessary.
- Steel frame portals will be erected on the reinforced concrete substructure. The frame will consist of rolled steel columns and rafters typically at 5 – 7 m spacing. Cold rolled light gauge steel purlins and cladding rails will be fixed to the main columns and rafters. The frame will be cladded with corrugated coated steel cladding.
- External cladding will be affixed to the steel frame when completed.
- Suspended floors will be placed using cranes and a concrete pump will be used to place the concrete screeds.
- Building roofs and roof drainage will be installed, utilizing temporary scaffolding and cranes, as necessary.

A combination of tracked excavators, concrete mixing trucks, dump / road trucks, cranes and mobile elevated platforms will be used when constructing the proposed buildings.

Installation of Additional Ancillary Site Infrastructure and Elements

The following additional ancillary site infrastructure and elements will then be installed.

- The weighbridges (2 no.) and weighbridge office and associated load cells will be installed on reinforced concrete foundations.
- The Fire Pump Station and its holding container will be installed atop a reinforced concrete foundation.
- The rainwater harvesting tank will be installed atop a reinforced concrete foundation.
- Prefabricated rooftop photovoltaic panels with bespoke roof fitting fixtures will be lifted in position by cranes and affixed to the roof manually. Associated cables will be installed along building roofs and within buildings walls and will be routed to the electrical substation.
- Pre-fabricated perimeter palisade fences will be installed
- Gabion walls will be installed
- Site lighting will be installed. Site lighting will be mounted at heights between 6 m and 10 m above ground using bespoke poles or wall mounted fittings.
- Prefabricated site plant and equipment will be delivered to site via articulated trucks

- Processing line plant and equipment will be conveyed into respective buildings and placed in position using telescopic loaders, forklifts and overhead gantries. This equipment will then be connected into the power supply.
- The odour abatement system will be delivered to the site and installed. The Odour Abatement System housing will then be installed.
- An air extraction / filtering system will be installed in MRF 1 to prevent dust entering the odour abatement system
- A dust misting system will be installed in MRF3.
- Roller doors will be installed.
- EV charging units will be installed.
- Site parking, road markings, signage, and vehicle barriers will be developed / installed.
- The diesel fuel tank will be installed.
- Building furnishings and ancillary mechanical and electrical systems will be installed.
- Solar panels will be installed on-site.
- Landscaping for the site will be planted.
- Site clean-up and commissioning will be carried out.

A combination of cranes, lifting gear, telehoists, scissor lifts auger machines, concrete mixing trucks, and excavators will be utilized when carrying out the above tasks.

4.5.3 Construction Management

Construction Waste / Materials Management

The waste / materials likely to be generated during the construction phase are presented in Table 4-6:

Table 4-6 Potential wastes generated during construction phase

Waste / Material	Source
Soil, hardcore, stone, gravel, concrete, plaster, steel	Waste / materials generated during demolition, site clearance, site stripping, and construction
Timber	Temporary supports, concrete shuttering and product deliveries
Scrap plant	Materials generated during decommissioning of existing waste facility
Miscellaneous building materials	Leftover waste material from demolition and / or construction of the site buildings
Sanitary effluent	Portaloo toilets
Plastics and cardboard	Plastic and cardboard packaging
Lubricating oils, diesel	Unused quantities of oils and diesel at end of the construction period

Any waste materials generated on-site during the construction of the proposed development will be handled and managed in accordance with the requirements of the *Waste Management Act 1996*, as amended, and associated Regulations. All wastes generated during the construction phase of the proposed development will be segregated and stored temporarily in segregated waste containers at the temporary construction compound. Waste oil and diesel that may be generated during the construction phase will be stored in bunded, enclosed, covered locations, as necessary. All waste materials transferred off-site for disposal or recovery will be hauled by operators who hold a suitable waste collection permit and be taken only to suitably permitted/licensed waste facilities.

The Applicant intends on maximizing waste prevention through the reuse/reutilization of material generated on-site during the construction phase of the proposed development, in accordance with circular economy principles and the Waste Hierarchy as enshrined in the Waste Framework Directive (2008/98/EC). The Applicant will aim to reutilize material within the confines of the development site as fill material, wherever possible.

All construction phase waste generated will be managed at the waste management facility which will co-join the construction site or be removed from the site and dispatched to one of the Applicant's other waste management facilities for either recovery, recycling or disposal (least preferred method of management). Any excess soil material generated during construction will be sent for recovery at an appropriately authorized Soil / C&D waste recovery facility.

4.5.4 Construction Traffic and Access Management

The facility's construction will lead to construction-related traffic on the roads in the proximity of the development. Construction phase traffic will include:

- Site personnel driving to the work site and temporary site compound (by car, van and 4x4).
- Import of fill material and concrete by HGV's.
- Export of surplus soil by HGV's.
- Delivery of cladding materials, structural and re-enforcing steel and other construction materials by van and HGV.
- Delivery of plant (e.g. conveyors, screens etc.), and ancillary infrastructural elements (e.g. rainwater harvesting tank, SW attenuation tanks) by HGV's.
- Movement of construction equipment to and around the site via HGV.

Construction traffic will access the site via a temporary construction phase access point, which will be situated at the same location as the proposed operational phase site entrance (Entrance 2).

A detailed Traffic Management Plan will be prepared prior to the commencement of the construction phase of the proposed development.

An assessment of the impacts of the proposed development on traffic and transportation is containment in Chapter 13 of Volume 2 of this EIAR.

4.5.5 Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) has been developed in order to manage, prevent and control potential environmental impacts associated with Construction Phase activities. This document is included in Appendix 4.2, Construction Environmental Management Plan, in Volume 3 of this EIAR. This document defines the environmental control and mitigation measures to be adopted during construction works to prevent adverse impacts on the environment due to these construction activities.

4.6 Natural Resource Usage

4.6.1 Construction Phase

Natural resources consumed during the construction phase will include concrete, steel and fill material utilized during construction. While exact quantities are difficult to quantify at this juncture, it is estimated that the following quantities of these materials will be consumed during the construction of the proposed development:

- 3,973 m^3 of concrete;
- 660 tonnes of steel;
- 21,120 m^3 of fill material.

4.6.2 Operational Phase

The main natural resources which will be consumed during the operational phase of the proposed development are as follows:

- Diesel fuel for the operation of site machinery (e.g. forklifts, loading shovels, etc.).
- Electricity for the operation of plant on-site.

Assuming 3 no. dedicated plant loading shovels, forklifts or similar plant items, diesel fuel consumption at the facility is estimated at 15,000 litres per annum.

The estimated annual electricity demand from the facility is estimated at 6,000 MWhs, based on the level of consumption observed at the applicant's Killeen Road waste management facility which is closely similar in nature and scale to the subject proposed development.

4.7 Decommissioning

In the event that the facility is no longer to be used for waste processing, it will be decommissioned in accordance with a Decommissioning Plan for the facility (which will be prepared as a condition of the IE Licence).

In accordance with the plan, on cessation of waste activities, the following broad steps will occur.

a. All materials and wastes will be wound down gradually prior to closure and removed for disposal or recycling at an appropriately authorized waste treatment facility.
b. All waters collected on-site will be collected and removed for disposal or recycling at an appropriately authorized waste treatment facility.
c. All hard-standing areas and drainage systems including interceptors and underground tanks will be cleaned and washed down.
d. Plant, equipment and tanks will be safely decontaminated/cleaned using standard procedures and competent contractors/staff.
e. Environmental monitoring and assessment will be undertaken to confirm that the ground and groundwater underlying the site and receiving surface bodies are in satisfactory condition.
f. All plant and equipment present on-site will be decommissioned and either resold, reutilized at a separate site operated by the applicant, or scrapped.
g. Office and staff facilities will be cleaned and emptied of all documents and IT equipment previously associated with the operation of the waste facility.
h. The buildings, concrete hardstanding, drainage systems, and fencing will be left in-situ.
i. All ancillary equipment such as the vehicles, skips and monitoring equipment will be removed off site.
j. Records relating to waste management, material management, and environmental management, monitoring and assessment will be retained by the applicant.

4.8 Health and Safety Management

4.8.1 Health and Safety Management

The proposed facility will be designed, constructed and operated in accordance with the following regulations and guidance documents.

- Safety, Health & Welfare at Work (Construction) Regulations 2013;
- Safety, Health & Welfare at Work Act 2005;
- Safety, Health & Welfare at Work (General Application) Regulations 2007;
- Safety, Health and Welfare at Work (Biological Agents) Regulations 2013;
- Best practice Health and Safety guidelines;
- Relevant EPA BAT guidance including the EPA's Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery.

4.8.2 Design Stage Risks

Fehily Timoney and Company (FT) are responsible for the design of the proposed development and have been appointed as Project Supervisor for the Design Process (PSDP) for the preliminary design phase of the development in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013. As PSDP FT have carried out a risk assessment and identified health and safety risks associated with the proposed development identifiable at this design stage.

A safety file for the proposed development works have been prepared in order to minimise many of the potential risks at construction stage. Health and Safety during the project construction stage will also need to be properly managed.

4.8.3 Health and Safety During Construction

The construction contractor will be appointed as Project Supervisor for the Construction Stage (PSCS) in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013. The suitability and competence of the contractor to fulfil this role will be carefully assessed by the applicant. prior to the appointment.

A site-specific Health and Safety Plan for the construction phase of this project will be prepared in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013. This will address all safety aspects of the construction project including, but not limited to:

- Site access and general induction training,
- General site safety,
- Chains, ropes and lifting gear,
- Special provisions for hoists,
- Protective clothing and footwear required,
- Lockout/tag-out procedures for safe electrical operations,
- Method statements for work procedures,
- Miscellaneous items.

4.8.4 Operational Health and Safety

Access to the site during the operational phase of the proposed development will be restricted to employees, waste vehicles and occasional visitors. Procedures will be in place at the facility to ensure the health and safety of all persons entering the site, including the signing in/out of all visitors. All personnel present on-site will be provided with and will be obliged to wear personal protective equipment (PPE) appropriate for their particular functions. PPE includes facemasks, gloves, safety glasses, steel-toed footwear, overalls, reflective jackets and helmets.

Any new employees will be made familiar with the contents of the site-specific Health and Safety Plan. All health and safety practices of the applicant will be reviewed on an annual basis to ensure that they are in line with best practice in this sector and will continue to be so. Health and Safety management will be implemented on-site in accordance with the applicants certified Health and Safety Management System. Regular safety audits will be carried out on-site to ensure the safety of all personnel working there. Furthermore, suitable operation and maintenance procedures will be in place to facilitate the safe operation of the whole facility.

Vehicular traffic movements within the site are speed restricted and all traffic movements are subject to strict procedures, in full accordance with health and safety requirements.

Other operational health and safety aspects such as noise and air quality are discussed in other Chapters of this EIAR. Measures have been taken in the design of the proposed infrastructure to minimise the potential impact of these aspects on health and safety.

It is the applicants intention to carry out the following in accordance with the eventual terms of the WFP/IE Licence for the facility:

- Provide full operational, health and safety, and environmental training for all employees,
- Develop an Accident Prevention Policy to enable proactive hazard identification and the prevention of accidents that may have an impact on health and safety and/or the environment.
- Develop an Emergency Response Procedure for responding to incidents or accidents that may have a health and safety and/or environmental impact.

4.8.5 Seveso Sites in the vicinity of the Proposed Development

Table 12.13 of Section 12.6 of the Fingal County Development Plan 2017 - 2023 presents a list of 'Seveso' sites in Fingal County and identifies the relevant distances from each site for which consultation with the Health & Safety Authority (HSA) is required for proposed development, in accordance with Section 137 (1) (b) and Table 1 and 2 of Schedule 8 of the Planning and Development Regulations, as amended. The proposed development location is located with the wider proximity of a number of these sites but does not fall within the relevant consultation distances, as shown in Table 4-7 following:

Table 4-7: Seveso Sites in Fingal (as per Table 12.13 of Section 12.6 of the Fingal County Development Plan 2017 – 2023)

Seveso sites in Fingal	Required Consultation Distance	Distance from Proposed Development Site
Barclay Chemicals Manufacturing Ltd, T/A Barclay Corp Protection, Damastown Industrial Park, Mulhuddart, Dublin 15	1,000 m	4,500 m
Chemco (Ire) Ltd. T/A Macetown North, Damastown Industrial Estate, Mulhuddart, Dublin 15	700 m	5,100 m
Contract & General Warehousing Ltd. Westpoint Business Park, Navan Rd, Mulhuddart	700 m	4,900 m
Mallinckrodt Medical Imaging-Ireland T/A Convidien Damastown, Mulhuddart	1,000 m	3,150 m
Astellas Ireland Co., Ltd., Damastown, Mulhuddart	1,000 m	4,300 m
Clarochem Ireland Ltd., (formally Helsinn), Damastown, Mulhuddart	1,000 m	5,600 m
Gensys Power Ltd., T/A Huntstown Power Station, Huntstown Quarry, Finglas, D11	300 m	2,400 m
Swords Laboratories, Watery Lane, Swords	1,000 m	11,000 m

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