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CONSULTING ENGINEERS

RESIDENTIAL DEVELOPMENT, COUNTESS ROAD, KILLARNEY, CO. KERRY

CONSTRUCTION & ENVIRONMENTAL WASTE MANAGEMENT PLAN

DATE 05/06/2026

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1 Introduction

Denis O'Sullivan & Associates were engaged as Consulting Engineers for the proposed development at Countess Road, Killarney, Co. Kerry.

This document comprises the Construction & Environmental Waste Management Plan and in particular provides details of the intended construction practice for the development including construction access and phasing, the proposed hours of working, noise management measures and off-site disposal of construction waste. The proposed sustainable management of wastes arising during the construction phase are also provided demonstrating how environmental impacts are minimised during the construction phase of the development.

Finally, the site compound location, construction traffic routes and parking proposals of workers along with general site considerations are also outlined. The location of the site compound, parking facilities and proposed access road are shown on the attached Proposed Construction Access & Site Facilities Drawing No. 7334-1009 in Appendix A. This CEMP will be provided to the main contractor for implementation during the site clearance and construction stages. It will be considered as a 'Live Document' and will be updated accordingly throughout the project as required.

The purpose of this CEMP is to:

- Identify stakeholder requirements.
- Ensure compliance with the grant of planning.
- Effectively avoid any potential significant adverse environmental effects during site clearance and construction; and
- Translate mitigation measures set out in the planning documentation into committed site procedures.

On appointment, the main contractor is required to implement the mitigation and protective measures set out in this document and maintain environmental monitoring records for the duration of the project which shall be made available to representatives from Kerry County Council for inspection on request.

2 Existing Situation

The subject site (currently greenfield) to the south-east of the Killarney town centre. The subject land is bordered to the north by the Countess Road, to the south, east & west by existing residential dwellings and by greenfield lands to the south-east. A snapshot of the site location is outlined in Figure 2.1 below.



Figure 2.1 – Site Location

3 Proposed Development

The proposed development will consist of the construction of a residential development of 259 no. residential units with ancillary single storey creche, landscaping and all associated site development works.

The proposed development includes the demolition of 2 no. existing two-storey semi-detached dwelling houses and an existing ruinous structure on the site and construction of 103 no. two storey houses (3-bed units), comprising of 27 no. terraced units, 62 no. end of terrace units, and 14 no. side entry units, 82 no. courtyard apartment units over 2 no. storeys (42 no. 1-bed units, 40 no. 2-bed units), and 74 no. apartment units (34 no. 1-bed units, 40 no. 2-bed units) in 2 no. part 3 storey and part 4 storey blocks.

Vehicular access to the proposed development will be via one entrance from Countess Road (L3904) to the north, with the entrance design including improvement works on the public road inclusive of a raised crossing point. The design includes pedestrian/cycle infrastructure to/from Countess Road and internally within the development site and to adjoining areas.

Ancillary site works include car parking, provision of bicycle parking and bin storage facilities serving the proposed apartment/courtyard apartment buildings and creche, 2 no. ESB substations,

landscaping, water services and drainage infrastructure (including foul and storm network upgrades in Countess Grove), and all associated site development works. The proposed development also provides for the demolition of an existing site boundary walls along Countess Road.

A Natura Impact Statement (NIS) has been prepared and will be submitted to the Planning Authority with the application.

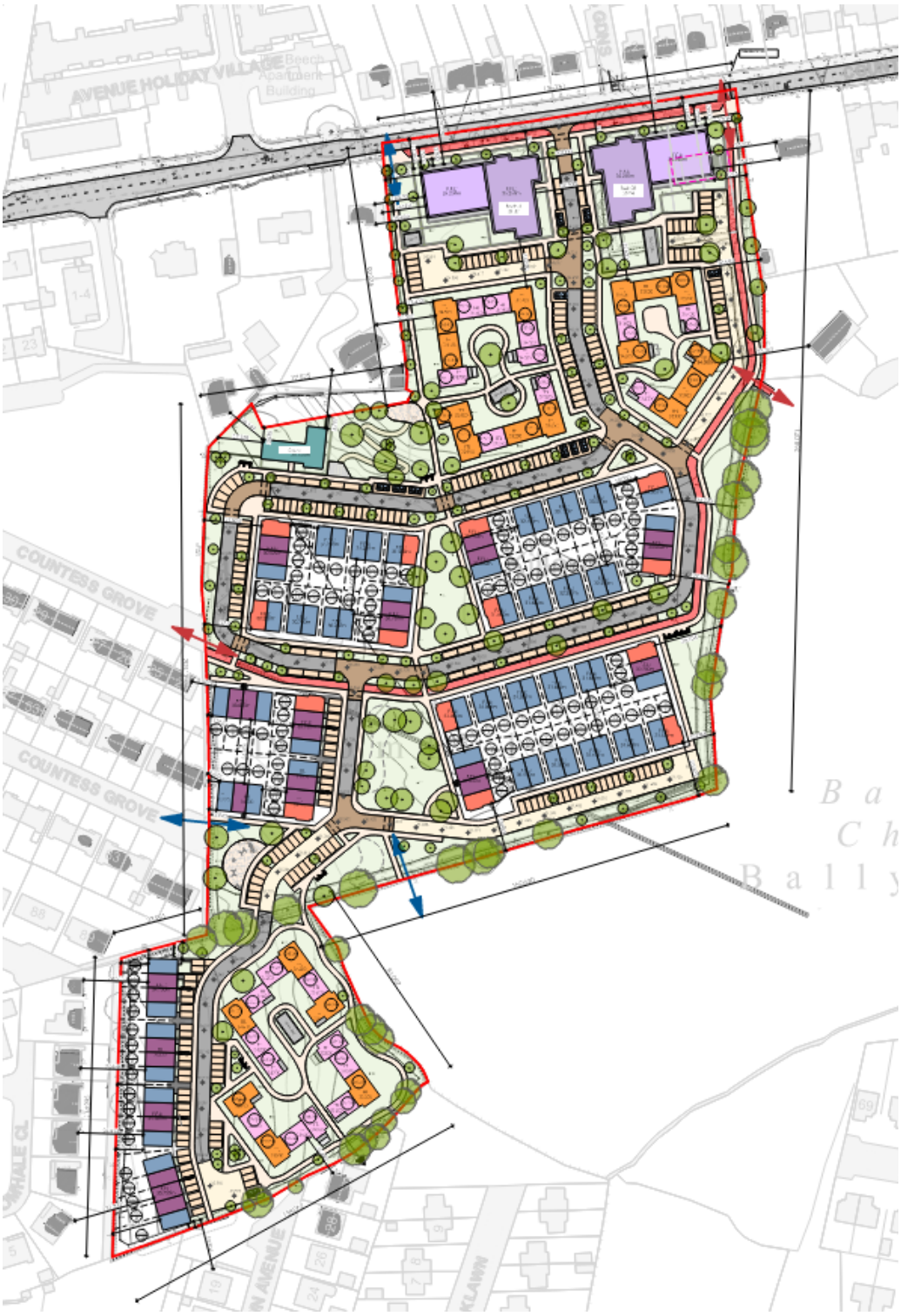


Figure 3.1 – Proposed Development

4 Potential Impact of Construction Works

The construction phase of the development will generate a certain amount of activity on the site. The general activities on site are likely to generate air and noise emissions and traffic movements. Alongside these general activities there will also be an amount of construction waste generated. The excavation of foundations and trenches for ductwork and sewers may require the removal of some rock underlying the site. The contractor will select the method of rock removal; however, it is likely the volume of rock to be removed will be minimal and localised and should not require a rock-breaker. The requirement to raise ground levels to facilitate the construction of the gravity drainage strives will ensure that the vast majority of excavated material will be re-used on site and therefore minimise movements of earthworks vehicles out of the site.

4.1 General Construction Activities

When considering a development of this nature, the potential noise & traffic impact on the surroundings must be considered for the construction phase. The construction phase will involve the preparation of the site, excavation of on-site material, construction of site roads and building of the proposed dwellings. With the construction activity there will be an increased number of vehicular movements in the locality, both construction and worker vehicles. The construction at the site will also have the potential of raising dust into the air and depositing or spilling material on adjoining roads during the construction works. Noise will also be emitted from the construction site during the course of the works, with limits on the hours of operation the norm to keep noise impacts to a minimum (see section 9.2 below). The flow of vehicular traffic to and from a construction site is also a potential source of relatively high noise levels.

The potential for vibration at neighbouring sensitive locations during construction is typically limited to excavation works and lorry movements on uneven road surfaces, see section 9.3 below.

The construction area is separated from existing dwellings by existing roads. There is potential for some noise and dust impacts on the closest buildings in the adjoining Countess Grove & Woodlawn Avenue estates, with the most significant constraint centring on vehicular access and egress from the site and the impact on the public roads.

The likely effects include noise and air blown dust being emitted from the site. The measures outlined in general for the site will seek to mitigate and/or remove impacts on the existing residents and the public road and these mitigation measures are detailed in the subsequent sections.

4.2 Developer Liaison

An information notice board will be erected at the construction site entrance. This notice board will be listed with a designated contact number to assist residents in contacting the developer with any queries.

5 Construction Works & Sequencing

Construction activities will undoubtedly have impacts and associated mitigation measures will be required to address any proposed works.

5.1 Phasing

It is anticipated that the works will be carried out in four phases as outlined in Appendix B.

5.2 Working Hours

It is proposed that Construction works will be carried out between the hours of 08:00 and 18:00 from Monday to Friday and 08:00 and 14:00 on Saturdays.

No construction works will be carried out on Sundays or Bank Holidays, without the specific agreement of Kerry County Council and workings hours will be confirmed by Kerry County Council.

5.3 Pre-Construction Surveys

Topographical and utility surveys have been carried out for the site and are available to the Contractor. The Contractor will be required to carry out pre-condition photo survey of the site which will include all perimeter boundaries, footways, existing carriageway on approach to the site. Any damage caused to existing boundaries or elements to be retained will be rectified by the Contractor in accordance with relevant standards.

5.4 Construction Site Access

Access to the works will be from the new construction entrance as outlined in the Proposed Construction Access & Site Facilities Drawing No. 7334-1009 in Appendix A. There will be sufficient space for construction vehicles to enter onto the site for delivery of materials and collection of waste without causing an obstruction on the public road network. There will also be sufficient space for HGVs to turn within the site. Signage will be erected on the Rock Road (in both directions) to notify motorists of the construction works ahead. Signage at the site entrance will be provided to ensure members of the public do not enter the site road mistakenly.

5.5 Construction Compound and Storage Areas

The construction compound for the development will be located within the green space area to the north of the development, so that it will not need to be moved from phase to phase. The compound will include a site office and welfare facilities for construction workers. Portaloo's will be provided in the compound initially with a dedicated toilet block installed at a later date. Electrical and potable water supply will be provided from the existing connections. Car parking will be located adjacent to the construction compound as shown on the Proposed Construction Access & Site Facilities Drawing No. 7334-1009 in Appendix A.

Waste skips will be located adjacent to the site office. Containers and skips used for construction waste handling will be moved close to the work face, as required. Incoming construction materials will be offloaded and stored in the materials compound.

5.6 Perimeter Fencing

The site will be secured using temporary fencing or hoarding at all times to ensure that the ongoing works are separated from the public. Netting will be erected on any fencing used to prevent debris and dust release from the site and provide screening of the construction and works. A secure lockable gate will be erected at the site entrance and visitors to the site will be directed to the adjacent site office. The Site management team will carry out regular inspections and maintenance of the security fencing/ hoarding while also ensuring areas are kept clean.

5.7 Stripping & Earthworks

In parallel with access road construction the main earthmoving works will be undertaken on the site. As the plant required for this phase will remain on site and not leave until the work is complete and the materials input is minimal, it is considered that the site access outlined in Section 5.2 above will be adequate to cater for the construction works.

Level platforms will be excavated for each residential building and there will be a requirement to import stone material for the access roads and to the front of each dwelling. Measures will be in place to contain dust and/or to ensure that mud and other debris are kept off the public roadways.

5.8 Earthworks Impact

The development has been designed to minimize cut and fill throughout the site, in keeping the proposed finish floor levels of the units and the proposed road levels as close to the existing ground levels as possible.

The design of road levels and finished floor levels has been carried out in such a way as to minimize cut/fill type earthworks operations. The duration that subsoils layers are exposed to the effects of weather shall be minimised. Disturbed subsoil layers will be stabilised as soon as practicable (e.g. backfill of service trenches, construction of road capping layers, construction of building foundations and completion of landscaping). Similar to comments regarding stripped topsoil, stockpiles of excavated subsoil material shall be protected for the duration of the works. Stockpiles of subsoil material shall be located separately from topsoil stockpiles. These stockpiles will be monitored throughout the construction phase. Monitoring of ground conditions and stability of excavations will be monitored on an on-going basis.

The main areas of potential impact with respect to earthworks are as follows: -

- Excessive Dust deposition

5.9 Earthworks Mitigation

The proposed mitigation measures for both the construction and operational phases include:

- Cattle (Rumble) grids will be placed at vehicular exit gates during excavation to remove spoil from truck wheels leaving from site.
- A street sweeper will attend site regularly to clean the road when there is truck movements in and out of the site.
- Hard surface roads will be regularly swept to remove mud and aggregate materials from their surface;

- Public roads outside the site will be regularly inspected for cleanliness, and cleaned as necessary;
- Material handling systems and Site stockpiling of materials will be designed and laid out to minimise exposure to wind; and
- Water misting or sprays will be used on stockpiles as required if particularly dusty activities are necessary during dry or windy periods.

5.10 Site Establishment

- On commencement of works on site a site compound will be established over the proposed green area. In this area the following facilities/provisions will be made:
- Site offices, canteen and toilet / changing facilities c/w temporary water supplies and wastewater disposal to the existing foul sewer on the adjoining spine road.
- Secure compound and containers for storage of materials and plant.
- Temporary vehicle parking areas.
- Contained area for machinery refuelling and construction chemical storage.
- Contained area for washing out of concrete and mortar trucks.
- A security/herras fencing will be provided at the main site entrance. All vehicles and personnel will be checked on entry to ensure no unauthorised access or fly-tipping. Heras fencing will also be provided around all boundaries as required.
- Water supply for the construction facilities will be taken from the mains supply which is adjacent the site on Countess Road. Power for the pumps and small power requirements for construction activities will be supplied from diesel generators until such time as the permanent site power supply is available.

5.11 Storage and Use of Materials

Specific areas for storage, delivery and loading/unloading of materials will be designated, which will have appropriate containment/spill protection measures where required.

- Handling and storage areas will be actively managed and fine, dry material will be stored inside enclosed shields/coverings or within central storage areas.
- A regular review of weather forecasts of heavy rainfall will be conducted, and a contingency plan will be prepared before and after such events to minimise any potential nuisances.
- Discharge water generated during the placement of concrete will be stored and removed off-Site for treatment and disposal.
- Prolonged exposure of contaminated soils or groundwater to the atmosphere will be avoided where practical or unnecessary.

5.12 Landscaping

Any trees shown on planning drawings to be retained will be protected for the duration of the construction activities on site and in accordance with BS 5837. Protective measures will include a protection fence erected beyond the branch spread of the trees and no construction activities will take place within the protective barrier save for perimeter fencing along the site boundaries.

5.13 Maintenance of Plant and Machinery

All plant and equipment will be regularly cleaned and properly maintained and there will be no washing out of any concrete trucks on site. Pumped concrete will be monitored to ensure there is no accidental discharge and will be carried out in dry weather and with impermeable pouring mats laid down where possible.

5.14 Storage and Use of Fuels, Oils, and Chemicals

Where possible, refuelling of vehicles and equipment will not be carried out on site to minimise the potential for spills or leaks to occur. However, some fuel, lubricants and hydraulic fluids will need to be stored on site during construction works for equipment such as excavators and generators.

- Appropriate bunding, storage and signage arrangements for all deleterious substances (e.g., fuels, oils, and chemicals) will be used.
- Fuels, lubricants, and hydraulic fluids for equipment used on the construction Site will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment according to best codes of practice (Enterprise Ireland BPGCS005).
- Waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the Site for disposal or recycling.
- Diesel tanks, used to store fuel for the various items of machinery, will be self-contained and double-walled.
- Spillage and leaks of oil from cars parked in the development during the Construction Phase Share unavoidable. To reduce the potential impacts, oil interceptors will be incorporated into the Site drainage design.
- Any spillage of fuels, lubricants or hydraulic oils will be immediately contained and the contaminated soil removed from the Site and properly disposed of.
- Refuelling will be carried out from tanks or delivery vehicles on a designated impermeable surface and will not be left unattended.
- Plant will not be left running when not in use (i.e., no idling) and plant with dust arrestment equipment will be used where practical.
- The fuel storage area will be properly secured to prevent unauthorised access or vandalism and all triggers will be locked when not in use. Spill kits and drip trays will be used during refuelling to collect any potential spills or overfills. No vehicles or containers will be left unattended during refuelling.
- Mobile fuel bowsers may be used for refuelling heavy equipment. Bowsers used will be double skinned and spill kit/drip tray equipment will be used during refuelling which will take place away from any nearby drains or watercourses and from any surface water drainage gullies.

5.15 Spill/Environmental Response Procedures

Robust and appropriate Spill Response Plan and Site Environmental Emergency Plans (SEP) will be implemented for the duration of the works.

- Identifying fuel storage and refuelling locations on designated areas within the compound, away from drainage ditches/waterbodies, and on substrate underlain with an impermeable liner to prevent contaminant leaching to groundwater;
- Identifying spill kit locations (spill kits will be required for each piece of heavy equipment (e.g., excavators, loaders, trucks, etc.,) which will be at least 21L drum size each with spill pads, sorbent, small boom, plastic garbage bag and gloves;
- A specially trained and dedicated Environmental and Emergency Spill Response team will be appointed before the commencement of works on Site.
- Staff will be trained and experienced in using appropriate control measures and spill kits on-Site, and will be familiar with the location of all spill kit locations and the Site layout.

A register will be kept of all hazardous substances either used on Site or expected to be present. The register shall be always available and shall include as a minimum:

- Valid safety sheets; Health & Safety, environmental controls to be implemented when storing, handling, using and in the event of spillage of materials;
- Emergency response procedures/precautions for each material;
- Personal Protective Equipment (PPE) is required when using the material.

5.16 Training And Awareness

All site staff will be required to complete an induction prior to commencement of works on the site. The details of the site induction will be provided by the main contractor in the Construction Health & Safety Plan.

As part of the site induction, all site staff will be made aware of the presence of the sensitive ecological areas in the vicinity of the site. Employees will also be informed about the risks associated with stormwater runoff on site and will be required to ensure no runoff or chemicals will enter the adjoining network once installed.

During the project works, the Site Manager or Project Environmental Manager will deliver strategic toolbox talks focused on potential environmental and safety risks associated with the works being carried out at that stage of the project.

5.17 Site Infrastructure

Proposed site infrastructure will be completed in a coordinated approach in line with the delivery of the residential units. It is anticipated that works will be staged in a similar nature. A more detailed discussion on site infrastructure is contained further in this chapter.

5.18 Residential Unit Construction

Once the site development and infrastructure are sufficiently advanced, construction of individual residential units will commence. It is envisaged that this will commence with the proposed units at the entrance to the site working inwards.

The basic sequence of residential construction is well established and the basic steps are as follows:

Substructure:

Construction of foundations and rising walls. This involves a degree of excavation and all excavated material will be disposed of site in a licenced waste management facility. Concrete and blocks will be delivered over several days. At this stage hard-core will be placed over the footprint of the units and roadways, which will generate a significant amount of truck movements into the site. The substructure will include allowances for under slab services/ utilities serving the units.

Concrete Floor Slab:

Pouring of concrete floor slab over the internal footprint of the apartment blocks. This is generally completed in a single pour involving several concrete trucks delivering in one day.

External Walls:

Construction of external internal blockwork walls of 100mm solid blockwork/brickwork will commence. Blocks, mortar, etc. will be delivered on standard trucks over a continued period as the work progresses.

Internal Walls:

Construction of internal walls. These will be of timber frame construction and the prefabricated timber frame units will be delivered on standard trucks over a continued period as the work progresses. The units will be craned into position and braced as per the manufacturer's specification.

Floor Installation & Prefabricated Roof Truss Installation:

Construction of floor and Roof erection will commence. Prefabricated floor joists & roof trusses will be delivered on standard trucks over a continued period as the work progresses.

Window & Installation:

Sealing of the building will continue with the installation of windows and doors. Again, these will be manufactured off site and deliver for installation.

Plastering (Internal & External):

Plastering of both the internal and external walls will involve the delivery of material supplies on an on-going basis.

Second Fix Carpentry, Mechanical & Electrical Services:

Installation of sprinkler, lighting, alarm system, power outlets, etc. This is undertaken once the building is weathered and does not involve the delivery of bulk materials.

Site Finishes:

Tie-ins to main site services, road surfacing, and general landscaping will be carried out with no need for bulk materials. The delivery of construction materials and its impact on traffic volumes will be dealt with in a construction stage Traffic Management Plan.

6 Infrastructural Works

The site development works will comprise new roads, footpaths, surface and foul water drainage, watermains and installation of service ducts for various utilities such as electricity, gas and telecommunications services. Each of these services are dealt with individually in the following sections.

6.1 Surface Water Drainage

The storm water system will involve a network of underground pipelines and manholes discharging to the existing stormwater network in the Countess Grove estate to the west of the site via the new attenuation system, which will be fitted with flow control devices to ensure no increase in peak flows and an oil interceptor and silt trap to remove any traces of oil and silt washed off road surfaces.

The services layout drawings included at planning stage show the proposed surface water drainage layout for the entire site.

6.1.1 Impact

The main areas of potential impact with respect to storm water runoff are as follows: -

- Discharge of hydrocarbons can be a source of contamination of watercourses/groundwater.
- Siting of drainage services within the development to avoid future undermining/subsidence of building structures.
- Local flooding caused by overloading of the drainage system.
- Potential settlement of services through filled areas of the site.
- Back flows through surface water outfalls during extreme flood events.

6.1.2 Mitigation

The proposed mitigation measures for both the construction and operational phases include:

- Silt traps such as a combination of an earthen berm, silt-fencing and associated interception trenches will be installed along the extent of the western boundary of the site, such that no contaminated surface water run-off can leave the site.
- Settlement ponds will be lined with cohesive material, with the addition of an engineered liner where a sealed drainage system is in use, and outlet by infiltration will not be permitted in order to protect the receiving groundwater at the Site.
- Under no circumstances will wastewater from equipment, wheel or surface cleaning be allowed to discharge into any drainage ditches, the ground or downslope to the adjoining stream.
- Debris and sediment captured by vehicle wheel washes will be collected and disposed of off-Site at a licensed facility.
- In addition, the below-listed measures serve to work in tandem with and complement efforts to mitigate sedimentation/siltation and the release of pollutants on Site during the Construction Phase.

- A Site Environment Plan (SEP) identifying fuel storage and refuelling locations will be developed and this plan will also identify the spill kit locations. Spill response kits will be required for each piece of heavy equipment (i.e. Excavators, Loaders, Trucks) which will be at least 21 litre drum size each with spill pads, sorbent, small boom, plastic garbage bag and gloves.
- Silt traps will be installed on surface water drains during the site development works.
- Constructing buildings and roads above the flood level to ensure that back flows through the surface water outfalls will not occur.
- All foul and other wastewater will be discharged to the foul drainage system. The storm drainage system with associated hydrocarbon interceptors and silt collection will be cleaned and maintained on an on-going basis throughout its lifetime in a manner and frequency that is in line with guidelines. All bypass separators are required by legislation to be fitted with an oil level alarm system with recommendations that the alarm is installed, tested, commissioned, and regularly serviced by a qualified technician. The alarm indicates when the separator needs immediate maintenance in order for it to continue to work effectively. The Environmental Agency's PPG3 guidelines stipulate that every 6 months, and in accordance with manufacturer's instructions, experienced personnel should carry out maintenance to both the separator and alarm. It is proposed to enter into a maintenance agreement with the bypass separator supplier will be to provide a full technical and service package including separator and alarm installation, commissioning, oil and silt removal and route service contracts.

The following measures will be implemented for the storage and use of hydrocarbons on site:

- Diesel tanks, used to store fuel for the various items of machinery, will be self-contained and double-walled.
- Refuelling will be carried out from these tanks or from delivery vehicles and will not be left unattended.
- Fuels, lubricants and hydraulic fluids for equipment used on the construction site will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment according to best codes of practice - (Enterprise Ireland BPGCS005).
- Any spillage of fuels, lubricants or hydraulic oils will be immediately contained and the contaminated soil removed from the site and properly disposed of.
- Waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the site for disposal or re-cycling.
- The development's road network will be finished with tarmac or asphalt surface which will discharge runoff to a piped drainage system.
- Proven engineering practice will apply during the hydraulic design process.
- Surface water drains will be installed in roads and streets and in pre-determined wayleaves adjacent to building structures.
- Spillage and leaks of oil from cars parked in the development during the operational phase is unavoidable. To reduce the potential impacts, oil interceptors will be incorporated into the site drainage design.

- The area is serviced by mains gas and this utility will be provided to the new development. The use of home heating oil is therefore eliminated so the risk has been removed.

The proposed development is not anticipated to cause an adverse impact on the surface water regime given the remedial and reductive measures previously outlined. Normal proven construction reinstatement and backfilling procedures will follow pipe laying, jointing, and testing procedures.

6.2 Foul Sewer Drainage

The proposed foul water drainage system is illustrated in the services drawings and will discharge to the public system in the adjacent Countess Grove estate with a gravity outfall. All works will be in accordance with Irish Water Specifications and details.

6.2.1 Impact

The potential impacts of the proposed development in terms of foul sewer are:-

- Impacts on surface water drains and watercourses in the event of leaks from the foul water drainage system.
- Impact on groundwater and soils in the event of leaks from the foul water drainage system.
- Overloading of foul water drainage infrastructure causing damage and blockages.
- Potential damage to local authority wastewater treatment plant and utilities.
- Siting of foul drains to avoid future undermining/subsidence of building structure.

6.2.2 Mitigation

The proposed mitigation measures are:

- Proven engineering practice shall apply during the hydraulic design process of the foul sewer network.
- Foul sewers will be installed in accordance with I.S. EN 752: Drains and Sewer Systems outside buildings.
- The ability of the ground to support the proposed drainage network will be confirmed by preliminary site investigation works.
- The foul sewer network will be vented in accordance with standard working practice.
- Foul water drains will be installed in roads and streets

6.3 Potable Water

It is proposed to provide a new 150mm O.D. Ø (outside diameter) HDPE connection to the public watermain running along the Countess Road with associated with associated hydrants, valves and metering requirements.

Water distribution supply to each building will be sized to cater for the requirements of those particular uses. Metered connections will be made to the trunk supply main.

6.3.1 Impact

The main areas of potential impact with respect to water supply are as follows:-

- New developments can cause difficulties for existing water supply.
- Reduction of existing storage capacity.

- Reduction of pressure in existing water supply.
- Siting of watermains to avoid future undermining/subsidence of building structures and permit ease of maintenance.

6.3.2 Mitigation

The proposed mitigation measures are:-

- The existing water supply feeds will be always protected during construction.
- Watermains will be installed in roads and streets.

The existing water supply will have adequate capacity to meet the projected water demand of the development. No adverse impact is foreseen on existing water supply or pressure. Firefighting provision will have no extra significance over and above any similar development of this kind.

5.4 Electrical Systems

Power and communications cabling will generally be run underground in a system of ducts and draw pits. Power supply will be taken from the network on Countess Road for distribution through the site.

The exact details of the above systems will be illustrated on the drawings accompanying any precedent condition response in the event of a planning permission being granted.

The basic infrastructure will be constructed at an early stage and the branch lines will be extended to various areas of the site as construction progresses. The installation of these services involves extensive trenching and the generation of surplus excavated material. The volume of this material has been calculated and it will be used within the site for re-grading around the site as development progresses. The impact of such works will be disturbance to users of the existing supply. The client will seek to minimise any disturbance to existing users by complying with the supplier utilities specifications/conditions and details.

7 Health & Safety

7.1 General

As required by the Safety Health and Welfare at Work (Construction) Regulations 2013, a Project Supervisor Design Process (PSDP) will be appointed by the developer to co-ordinate the design effort and to address and minimise construction risks during the design period. Notification of this appointment will be sent to the HSA by means of their Approved Form 1 (AF1). As design advances, a Preliminary Health and Safety Plan will be drawn up by the PSDP.

This will be passed on to the appointed Project Supervisor Construction Stage (PSCS) to be developed into a full project Health and Safety Plan. Notification of this appointment and the commencement date of construction will sent be to the HSA by means of their Approved Form 2 (AF2).

The construction areas will be delineated and will be under the control of the PSCS who co-ordinate will and supervise all safety aspects of the project. A Safety File will be compiled and maintained on site for the duration of the project and this and the implementation of the Plan will be subject to regular audits. All personnel and their subcontractors who will be working on or attending site will attend and comply with a Site Safety Induction Course to be provided by the Site Safety Officer. Construction workers carrying out safety critical tasks must complete Construction Skills Certification Scheme (CSCS) training, and general operatives will be required to have a valid and current safepass card.

All Contractors shall be requested to provide a sound working environment for all employees involved in the design, construction and operation of the PV Plant. This shall consider all applicable national laws, guidelines and standards.

The Contractors must ensure that the following HSE objectives are met:

- Zero accidents and injuries with respect to all involved workers.
- Zero harm to workers, the public and the environment.

Each Contractor shall prepare and implement the Health, Safety and Environmental (HSE) Plan and associated working instructions and procedures that will always govern their actions. The HSE Plan will cover the following aspects:

- Project Policy Statement.
- Roles and Responsibilities.
- Site regulation, including, for example, housekeeping, barricades, excavations, tools and equipment, electrical work, ladders, and scaffolds, etc.
- Risk Management and Hazard Identification.
- HSE training.
- HSE management of subcontractors.
- Work Permit system.
- Personnel Protective Equipment (PPE).
- Inspection and auditing
- HSE meetings.

- Incident Investigation and Reporting
- Site security
- Medical care and first aid

Furthermore, the Contractors shall develop and implement an emergency response plan outlining all necessary measures and communication procedures in case of emergency situations. The preparation and application of the HSE shall be audited independently throughout the construction period.

Minimum PPE required during the construction works will include protective footwear, high visibility vests, gloves, safety glasses and hard hats. Ear defenders will be used during noise works, as required.

Further details will be set out on the Construction Health & Safety Plan to be prepared by the appointed contractor.

Signage will be erected at the site entrance to warn the public of the ongoing construction works. The signage used will be like that shown in Figure 7.1 below.



Figure 7.1 – Context Map

7.2 Control Substances Hazardous to Health

The strategy for controlling all substances coming onto site and all work activities and progress which may generate hazardous substances will be managed and controlled in accordance with best practice guidance. Some control measures to be employed are as follows:

- All fuels and chemicals will be stored in designated areas, with deliveries of all hazardous materials supervised;
- Storage tank or container facilities will be appropriately bunded with designated areas as far as possible from any watercourses or surface drains;
- In case of spills or discharges, remedial action will be taken as soon as possible, and set procedures will be compiled with;

- A logistics plan will be developed to take into account the management and control of hazardous substances on site; and
- Personal protective equipment (PPE) suitable to prevailing conditions will be used by all construction workers.

7.3 Emergency, Fire and Accident Procedures

Emergency routes and procedures will be continuously adapted to suit the construction sequence and stage of the Development. An Emergency Fire and Accident plan will be prepared, generally following the guidelines for plan contents below and updated on a regular basis to take account of construction progress:

- Definition of the management organisation and responsibility for safety;
- Definition of appropriate fire prevention measures, including good housekeeping of site, welfare facilities and offices;
- Use of non-flammable/fire retardant materials for protection of finished works;
- Safe use and safe storage of flammable materials of all categories, whether solid, liquid or gas;
- Appropriate waste management procedures;
- Monitoring the type and frequency of fire inspection/audits;
- Suitable site accommodation location, construction and detection/fire fighting systems;
- Development of evacuation plans, to include setting of systems in place to ensure that emergency vehicles have been called and all personnel have safely left the area;
- Training and fire drills.

8 Construction Traffic Management

The majority of construction traffic coming to and leaving the site will use the Countess Road and the N-22 or N-71. Transport of construction material will comprise the majority of HGV traffic movements during the construction works. Similarly, the Contractor will be required to use licenced and permitted waste management facilities within the Killarney area which can accept C&D waste which will be generated from the site.

The appointed contractor will determine which facilities will provide construction materials and collect waste from the site. Suitably permitted waste contractors will be appointed to transport any waste off-site.

Construction traffic, delivering to or collecting from the site, will be able to drive into the site from the Countess Road and turn within the site such that there will be no queuing of traffic on the adjacent road network. Drivers coming to site will be informed of the site working hours and suppliers will not be permitted to park at the site entrance awaiting the gates to open.

The N-22 national route provides a link between the site and areas to the north and south. As a result, HGV's will be able to avoid entering Killarney town centre for the most part. HGV's will be required to access the Countess Road from the N-22 where road widths are suitable for HGV vehicular movement.

There will be a noticeable increase in HGV traffic on the road network during the construction stage works as waste materials are removed from site and deliveries brought to site, however this activity will be of short duration and generally staggered. Parking will be provided within the site boundary for construction staff and no car parking will be permitted outside of the site boundary.

Visual surveys of the road network approaching the site will be carried out on a regular basis. The main contractor will carry out road sweeping operations, employing a suction sweeper or similar appropriate method, to remove any project related dirt and/or material deposited on the road network by construction/delivery vehicles. The contractor will be required to provide suitable hard standing directly within the site boundary off the main access to minimize spoil being transferred onto the public road. Nonetheless, a wheel wash system will be set up in the event there is a risk of debris deposit on the road.

Waste collection vehicles leaving the site will be required to cover their loads with a canvas to prevent waste or dust emissions from the vehicle on the road network.

9 Environmental Management

9.1 Air Quality

Construction works will be carried out in such a way as to limit the emissions to air of pollutants (particularly dust and fine particles (PM10)), employing Best Practicable Means. The site will be managed in accordance with the CWMP to minimise the potential effects on air quality from construction. Monitoring will be undertaken throughout the construction period to enable proactive management of dust and PM10 levels. Wind speed and direction will be included in the monitoring.

Dust will be generated mainly from earthworks activities at the early stage of the project and to a lesser extent from new construction and traffic movements. The closest human receptors are located in properties along the Waterfall Road.

Measures will be put in place to minimise the impact of dust generated from the works with reference to best practice guidance such as the *Control of Dust from Construction and Demolition Activities* document. These measures will include:

- During periods of dry weather, the site access routes will be kept damp to minimise dust generation from construction traffic.
- Street sweepers will be employed to ensure the adjacent R474 is maintained free of dust.
- Establishing a 10 km/hr speed limit for vehicles on site.
- Minimisation of extent of working areas at any one time.
- Netting and/or hard surface hoarding around the perimeter of the site will minimise dust migration from the site at low levels.
- Stockpiling of imported materials will be limited to the volumes required to practically meet the construction schedule.
- Excavated materials will be removed from site as soon as possible to minimise potential for stockpiles to create windblown dust; and
- Daily inspections by the main contractor will be carried out to identify potential sources of dust generation along with implementation measures to remove causes where found.

It is not proposed to carry out dust deposition monitoring as it is considered that the above measures will be sufficient to ensure that there is no dust impact on local human or ecological receptors. Contact details for the site manager will be provided at the entrance to the site and local residents/public will be encouraged to report any off-site dust deposition issues. Any air quality complaints made during the works will be logged, investigated and followed up with measures to limit emissions, where appropriate.

There will also be some exhaust emissions generated from use of excavators, HGVs and vibrating rollers during the demolition and construction phase. These impacts will be temporary in duration and are not considered likely to give rise to significant air quality impacts following the implementation of the following measures:

- All machinery will be suitably maintained to ensure that emissions of engine- generated pollutants shall be kept to a minimum in accordance with Measures Against the Emission of Gaseous and Particulate Pollutants from Internal Combustion Engines to be Installed in

Non-Road Mobile Machinery (2002/88/EC) and Emissions of Pollutants from Diesel Engines (2005/21/EC)

- Vehicles will not be left unnecessarily idling on the site and trucks removing demolition waste from the site will turn off engines during loading.
- Pre-start checks on all machinery will be conducted on a daily basis prior to commencement of activities.
- Low emission fuels will be used insofar as possible; and
- Mains power will be used for small plant and equipment, where possible, in preference to generators.

9.2 Effective material storage and handling

The storage and handling of construction materials can be a significant dust emission source. The adoption of appropriate dust control measures will greatly reduce dust emissions from these sources and ensure that any adverse effects are reduced or eliminated.

Handling and storage areas will be sited as far away as is reasonably and practically possible from public/residential areas. Handling and storage areas will be actively managed and fine, dry material will be stored inside enclosed shield/coverings or within a central storage areas. Any storage areas that are not enclosed will be covered/sheeted. Prolonged storage of debris on site will be avoided. Vehicles carrying dusty materials into or out of the site shall be sheeted down to prevent any escape of materials.

9.3 Construction Plant

Construction plant can be a significant source of emissions although control measures can be implemented to minimise any adverse impacts. The following measures will be employed:

- Site plant and equipment will be kept in good repair and maintained in accordance with the manufacturer's specifications. Allowing for economic constraints, the plant will be selected on the basis of which has the least potential for dust and other emissions;
- Plant will not be left running when not in use (i.e. no idling);
- Plant with dust arrestment equipment will be used where practical;
- Where practical, cleaner fuels will be employed for construction plant; and
- Enclosures will be erected around major construction plant items as appropriate and where practical.

9.4 Vehicle Movements

Vehicle movements may result in dust emissions (by re-suspending dust from the road or from spilling dusty loads) and exhaust emissions. However, a number of control measures can be adopted to eliminate or minimise such emissions:

- Wheel washing facilities close to the site entrance to prevent mud from construction operations being transported on to adjacent public roads;
- Any spillages from vehicles leaving the site will be promptly removed;
- Damping down of site haul roads by water bowser during prolonged dry periods;
- Regular cleaning of hard-surfaced site entrance roads;

- Ensuring that dusty materials are transported appropriately (e.g. sheeting of vehicles carrying spoil and other dusty materials);
- Confinement of vehicles to designated haul routes within the site;
- Restricting vehicle speeds on haul roads and other unsurfaced areas on the site;
- All vehicles will be maintained to minimise exhaust emissions;
- Hoarding and gates to prevent dust breakout; and
- Appropriate dust site monitoring will be included within the site management practices to inform site management of the success of dust control measures used.

10 Noise Management

Noise and vibration levels will be controlled as set out below to ensure that the Development is operated in a way that minimises detrimental impact to the amenities of local residents.

10.1 Construction Noise

Infrastructure works, excavations, and foundation construction will be among the most significant activities. Although concreting operations will also give rise to noise, the levels generated would not be considered to be significant.

In order to minimise the noise impact further on the adjoining properties it is proposed that heavy equipment and machinery including pneumatic drills, construction vehicles and generators only work between the hours shown below. In addition, no deliveries and/or removal of materials will occur outside of these hours. All plant and equipment will be maintained in good working order in accordance with BS.5228 in order to minimise air and noise emissions.

During construction, the measures summarised below, are to be employed:

- Details of construction activities, prediction levels/assessments will be discussed with the relevant authority, both prior to construction and during construction. Detailed construction programmes will be available in advance of work starting on site;
- Where work outside of agreed hours or likely to exceed specified noise limits is necessary then this shall only proceed subject to notification to Kerry County Council Environmental Health Officer and local residents, and approval given.
- Except for emergency situations, notification will be in advance of any requirement for out of hours/noisy working.
- Where the potential for noise exists, 'Best Practicable Means' will be used to reduce noise to achieve compliance consistent with the recommendations of BS 5228, and may include:
- Careful selection of plant items, construction methods, programming, and implementing a 'noise and vibration protocol', which outlines monitoring frequency and action levels etc;
- Design and use of site hoarding and screens/noise barriers, to provide acoustic screening at the earliest opportunity;
- Vehicles and machinery will not be left running when not in use (i.e. no idling);
- Choice of routes and programming for the transport of construction materials.

10.2 Noise Limits

Noise Limits to be applied for the duration of construction works are as set out in the National Roads Authority (NRA) Guidelines for Treatment of Noise and Vibration in National Roads Schemes (summarised below in Figure 9.1) and BS 5228-1:2009+A1:2014 (Code of Practice for Noise Control on Construction and Open Sites).

Days & Times	$L_{Aeq\ (1hr)}$ dB	$L_{pA(max)slow}$ dB
Monday to Friday 07:00 to 19:00hrs	70	80[2]
Monday to Friday 19:00 to 22:00hrs	60[2]	65[2]
Saturday 08:00 to 16:30hrs	65	75
Sundays and Bank Holidays 08:00 to 16:30hrs	60[2]	65[2]

Table 9.1 – NRA Guidelines for Maximum Permissible Noise Levels at the Façade of Dwellings during Construction.

BS 5228 applies a noise limit of 70 dBA between 07:00 am and 19:00 pm outside the nearest window of the occupied room closest to the site boundary in suburban areas away from main road traffic and industrial noise. For the duration of construction works, a daytime noise limit (07:00 am to 19:00 pm) of 70 dBA shall apply (in accordance with the requirements of BS 5228 and generally in agreement with the NRA guidelines).

10.3 Vibration

Monitoring devices will be placed on all boundaries proximate to the construction site and along routes for construction traffic.

Vibration Limits to be applied for the duration of construction works are as set out in BS 5228-2:2009+A1:2014 (Code of Practice for Vibration Control on Construction and Open Sites) and BS 7385: 1993 (Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration). Allowable vibration during the construction phase is summarised below in Figure 9.2. These will be checked at a minimum of twice a week.

Allowable vibration velocity (Peak Particle Velocity) at the closest part of any sensitive property to the source of vibration, at a frequency of		
Less than 10Hz	10 to 50Hz	50 to 100Hz (and above)
8 mm/s	12.5 mm/s	20 mm/s

Table 9.2 – NRA Guidelines for Allowable Vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration

11 Lighting

All temporary lighting installed within the proposed development site will be completed with sensitivity for local wildlife while still providing the necessary lighting for human usage during construction.

11.1 Lighting Mitigation Principles

Temporary lighting design should be flexible and be able to fully take into account the presence of protected species. Therefore, appropriate lighting, as detailed below, should be used within a proposed development and adjacent areas with more sensitive lighting regimes deployed in wildlife sensitive areas.

- Construction should be limited to daylight hours in order to minimise adverse effects on nocturnal fauna.
- Light Emitting Diodes (LED's) will be used and the brightness will be set as low as possible.
- Lighting will be kept to the minimum necessary for health and safety purposes
- Lighting will be only be utilised during working periods where required and will be shut down during non-working periods.
- Lighting will be directed away from landscaped areas and retained sections of hedgerows, treelines, and mature parkland areas.
- LED luminaires will be used because they are highly directional, lower intensity, good colour rendition and dimming capability.
- Luminaires will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.
- The use of specialist bollard or low-level downward directional luminaires should be considered in bat sensitive areas to retain darkness above.
- Column heights should be carefully considered to minimise light spill. The shortest column height allowed should be used where possible.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used.
- Luminaires should always be mounted on the horizontal, i.e. no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1min) timers.
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.
- Monitoring of light levels along the treelines and hedgerow areas will be undertaken pre-construction, during-construction and post-construction to identify any areas where light spill is affecting background levels. Where monitoring detects light spill is affecting these habitat areas, remedial measures will be implemented to ensure that background light levels are maintained. All lumina Lighting Extract - ires used should lack UV/IR elements to reduce impact.

12 Environmental Risk Assessment & Management Plan

The potential risks are typically assessed under a number of headings, including but not limited to:

- Noise – proximity of neighbouring residences
- Nuisance caused by dust emissions
- Impact of traffic - deliveries and removal of material
- Impact of traffic – road safety and cleanliness
- Hazardous Materials –storage
- Containment – spillage from oil tanks
- Containment – potentially turbid surface water
- Containment – concrete truck washings
- Disposal of foul water from compound
- Disposal of demolition waste and surplus materials

The risks are be discussed on site during construction as if unmitigated and then with proposed mitigation measures in place. The nature of these risks will change as the project progresses. For instance, in the earthworks phase the principal concerns would be noise, dust/mud and turbid surface water runoff, whereas in later phases issues such as traffic control and waste management would be seen as critical.

RISK MATRIX

The above section outlines the type of risks associated with the project at this stage of development. These can then be tabulated to give a qualitative assessment of these risks, based on the potential consequences and likelihood of occurrence. The matrix identified in Table 10.1 can be used as a basis to classify the risk. The objective is that following implementation of the appropriate mitigation measures all identified risks are in the Low-Intermediate range, and are therefore considered acceptable.

Table 10.1 – Risk Matrix

	H	Low-Med (Intermediate)	Medium (Unacceptable)	High (Unacceptable)	Emergency (Unacceptable)
Likelihood	M	Low	Low-Med (Intermediate)	Medium (Unacceptable)	High (Unacceptable)
	L	Low	Low	Low-Med (Intermediate)	Medium (Unacceptable)
	LL	Low	Low	Low	Low-Med (Intermediate)
		LL	L	M	H
		Consequence			

13 Construction & Demolition Waste Management on Site

13.1 Site Clearance

The management of construction and demolition waste should reflect the waste management hierarchy, with waste prevention and minimisation being the first priority succeeded by reuse and recycling.

During site clearance and construction works, there are numerous opportunities for the beneficial reuse and recycling of the demolition materials. The subsequent use of recycled materials in construction works also reduces the quantities of waste which ultimately needs to be consigned to landfill sites.

13.2 Source of Fill & Aggregates

All fill and aggregate for the proposed development will be sourced from reputable suppliers. All suppliers will be vetted for;

- Aggregate compliance certificates/declarations of conformity for the classes of material specified for the proposed development
- Environmental management status and
- Regulatory and legal status of the company.

13.3 Prevention of Waste

The primary effort therefore should be to engage in waste prevention and reduce the amount of waste generated in the first place i.e. minimise the resources needed to do the job.

Prevention is financially advantageous as it reduces the purchase of construction materials and obviates the need to remove wastes from site. It is important to emphasise the potential for certain purchasing procedures to contribute to a reduction in excessive material wastage on site.

Examples include:

- ensuring materials are ordered on an "as needed" basis to prevent over supply to site;
- purchasing construction materials in shape, dimensions and form that minimises the creation of excessive scrap waste on site;
- ensuring correct storage and handling of construction materials to minimise generation of damaged materials/waste, e.g. keeping deliveries packaged until they are ready to be used;
- ensuring correct sequencing of operations; and
- assigning individual responsibility (through appropriate contractual arrangements) to sub-contractors for the purchase of raw materials and for the management of wastes arising from their activities, thereby ensuring that available resources are not expended in an extravagant manner at the expense of the main contractor.

13.4 Waste Streams

Waste materials generated on site will fall into three categories for management, these are:

- Re-use

- Recycle
- Landfill

Re-use

Waste material that is generated should be reused on site or salvaged for subsequent reuse to the greatest extent possible and disposal should only be considered as a last resort. Initiatives should be put in place to maximise the efficient use/reuse of materials.

Recycling

There are a number of established markets available for the beneficial use of C&D waste:

- waste timber can be:
    - recycled as shuttering or hoarding, or
    - sent for reprocessing as medium density fibreboard;
- waste concrete can be utilised as fill material for roads or in the manufacture of new concrete when arising at source; and
- in addition, the technology for the segregation and recovery of stone, for example, is well established, accessible and there is a large reuse market for aggregates as fill for roads and other construction projects.

Landfill

If either of the above cannot be satisfied then the only option left is to send the surplus materials to landfill.

13.5 Overall Management of Construction and Demolition Waste

Waste minimisation, reuse and recycling can best be managed operationally by nominating a "Construction and Demolition Waste Manager" to take responsibility for all aspects of waste management at the different stages of the Project.

This C&D Waste Manager may well be a number of different individuals over the life-cycle of the Project, but in general is intended to be a reliable person chosen from within the Contracting Team, who is technically competent and appropriately trained, who takes the responsibility to ensure that the objectives and measures within the Project Waste Management Plan are delivered and who is assigned the requisite authority to secure achievement of this purpose.

Specifically, the function of the C&D Waste Manager will be to communicate effectively with colleagues in relation to the aims and objectives for waste management on the Project. The primary responsibility for delivery of the objectives of the Waste Management Plan will fall upon the C&D Waste Manager designated at the demolition/ construction stage. A key objective for the C&D Waste Manager should be to maintain accurate records on the quantities of waste/ surpluses arising and the real cost (including purchase) associated with waste generation and management.

The preparation, application and documentation of a Project Waste Management Plan should enable all parties - including contractors, designers, and competent authorities - to learn from the systematic implementation and assessment of best practice, particularly through the recording of summary information on performance outcomes.

13.6 Waste Generated during Works

Waste Types	Waste Category	European Waste Code (EWC)	Colour Code	Origin of Waste
Tarmac	Inert	17 01 06		Site Strip & Demolition Works
Concrete	Inert	17 03 01		Site Strip
Brick/Block	Inert	17 01 06		Site Strip & Demolition Works
Timber	Active/Bio	17 02 01		Construction & Demolition Works
Glass	Active/Bio	17 02 02		Construction & Demolition Works
Subsoils	Inert	17 05 04		Site Strip & Excavation Works
Metals	Active/Bio	17 04 07		Construction & Demolition Works
Plasterboard	Active/Bio	17 08 02		Construction & Demolition Works
Packaging		15 01 01 (Note 1) 15 01 02 (Note 2) 15 01 03 (Note 3)		Construction Works
Mixed		17 09 04		Construction & Demolition Works

Note 1: 15 01 01 is the EWC code for paper and cardboard packaging

Note 1: 15 01 02 is the EWC code for plastic packaging

Note 1: 15 01 03 is the EWC code for wooden packaging

13.7 Site Segregation

A specific area on the site shall be laid out and labelled to facilitate the separation of materials for potential recycling, salvage, reuse and return. Recycling and waste bins are to be kept clean and

clearly marked in order to avoid contamination of materials. The labelling systems shall be the Waste Awareness Colour Coding Scheme. The skips will be clearly identified to ensure the workforce will deposit the correct materials into the correct skip. Skips for segregation of waste for the construction works will be:

- Wood
- Metal
- Brick/rubble
- Canteen waste

As works progress and other trades come to site other skips will be placed to enable certain waste to be removed from site. This is likely to include:

- Plasterboard
- Paper and cardboard (bagged up)

13.8 Waste Cycle

Site Enabling Works (including Demolition)	
Waste Types	**Waste Stream**
Concrete	Crushed & Re-used on site
Tarmac	Landfill
Stone/Blocks	Crushed & Re-used on site
Timber	Recycled
Subsoils	Re-used on site or sent to Landfill
Metals	Scrap Value
Plasterboard	Landfill

Construction Works	
Waste Types	**Waste Stream**
Plasterboard	Return/Landfill
Bricks/Blocks	Landfill
Timber	Recycled
Cardboard	Landfill

Mortar	Landfill
Metals	Scrap Value
Paints	Landfill
Soils	Re-used on Site/Landfill

The skips will be monitored to ensure that contamination of segregated skips does not occur.

The client and contractor will need to continually review the type of surplus materials being produced and where they can change the site set up to maximise on re-use or recycling and ensure that the use of landfill will be the last resort.

13.9 Transport of Waste

Any of the waste that is removed from the site (including inert waste) shall only be transported by an individual or company which holds a valid Waste Collection Permit to transport such material. The Contractor should ensure that any person transporting waste off the site should always have a copy of their Waste Collection Permit on the vehicle.

13.10 Permitted/Licensed Waste Collection Used

Any of the waste that is removed from the site (including inert waste) shall only be transported by an individual or company which holds a valid Waste Collection Permit to transport such material. The Contractor should ensure that any person transporting waste off the site should always have a copy of their Waste Collection Permit on the vehicle.

13.11 Permitted/Licensed Waste Facilities Used

Any waste (including inert waste) removed from any site shall only be taken to facilities which hold either a valid Waste Facility Permit issued by Kerry County Council or a Waste License issued by the EPA.

13.12 Site Recording

The Contractor shall be required to ensure that a record shall be maintained of all waste removed from the site. The record shall include information on the type of waste removed, the quantity removed, the date removed, and details of whether the waste in question was being removed for either disposal or recovery/recycling, details of the transporter of waste, details of the facility to which waste is removed (including license or permit number). A location shall be identified where all records in regard to waste transport, recycling, disposal will be held fr inspection.

Details of the inputs of materials and outputs of wastes from the project will be investigated and recorded in a Waste Audit, which will identify the amounts, nature and composition of the waste generated. The audit will examine the manner in which the waste is produced and how management practices may contribute to the production of waste. The measured waste quantities will be used to quantify the costs of management and disposal in a Waste Audit Report, which will also record lessons learned for future projects.

A record of all waste movements from the site will also be maintained and copies of the waste transfer dockets will be held on site. The Project Environmental Manager will ensure that all waste haulage vehicles are identified on the waste collection permit and that the waste description and associated List of Waste code stated on the waste transfer docket are correct.

Any incidents resulting in a potential negative impact on soils or groundwater will be notified immediately to the Project Environmental Manager and the Site Manager. Spill kits will be used where possible to clean up any release and measures taken to ensure that any release does not reach a watercourse or surface water drain. Kerry County Council will be notified of any such incident which has the potential to cause a negative impact.

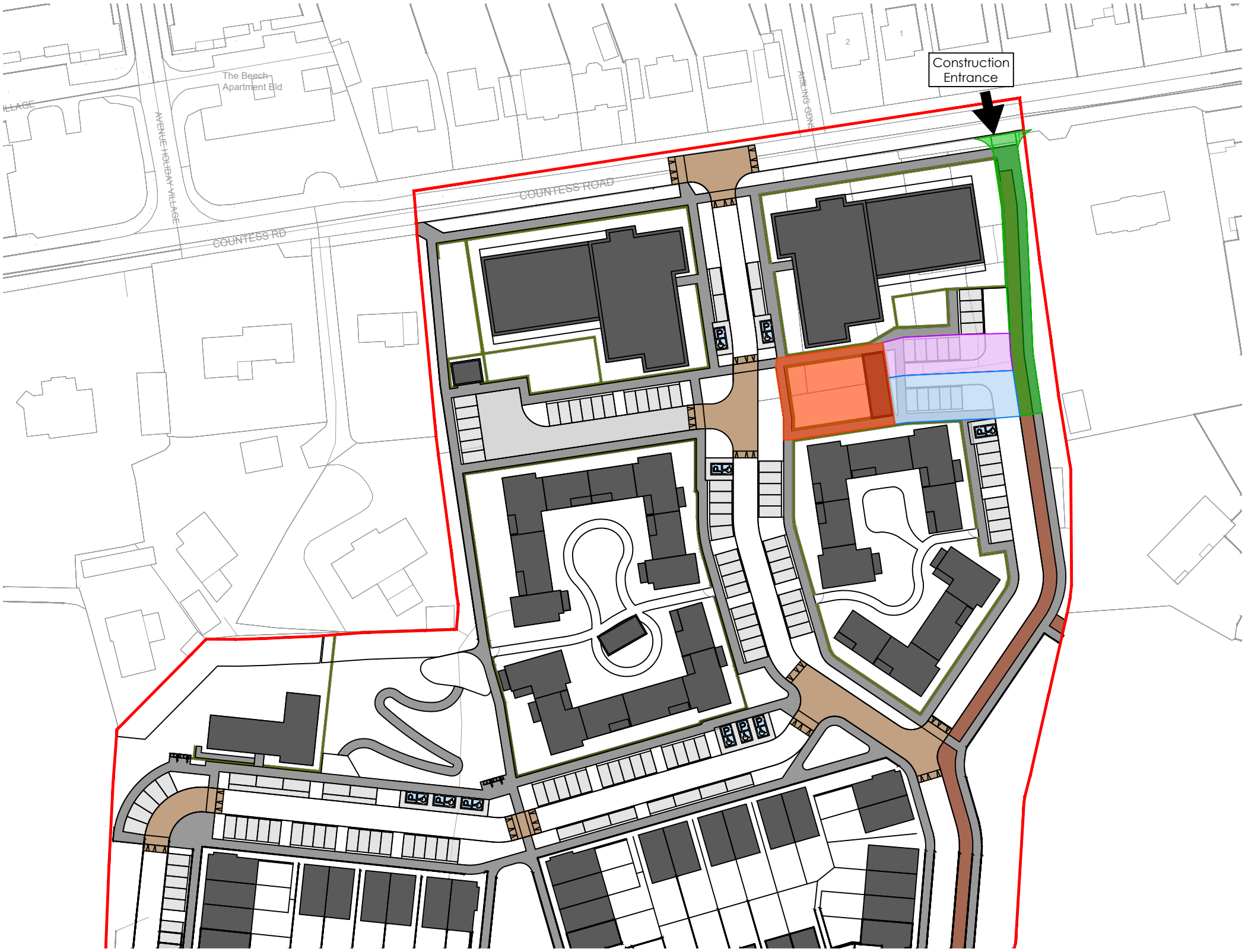
A record of any complaints received in relation to construction works will also be maintained and categorised (e.g., noise, property damage, traffic, dust etc.) within a central Site Complaints Log. The log will include the following key details:

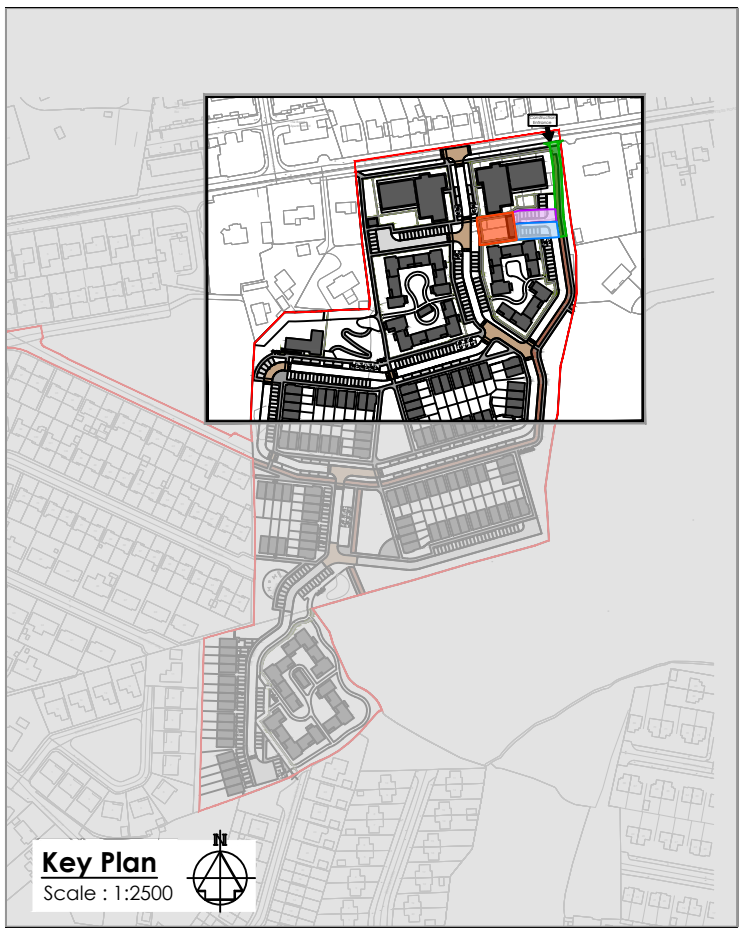
- Name, address and contact details of the complainant (with the complainant's permission).
- Brief outline of the complaint.
- Date of complaint.
- Name of person receiving complaint details; and
- Agreed timeline for response to the complaint.

Any complaints made will be notified to the Site Manager and the Project Environmental Manager immediately and a plan put in place to investigate and seek to resolve the complaint. The Site Manager will also notify the Developer of complaints received. The complainant, Developer and other stakeholders will be kept informed of the progress in resolving the issue.

Hard copy folders will be maintained on site for inspection by the planning authority at any time.

Appendix A





Proposed Site Layout

Scale : 1:500

N

Legend:

- Construction Traffic Access Road
- Site Office
- Site Parking
- Waste Storage & Management
- Site Boundary

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CLIENT: Gallentia Unlimited Company

PROJECT: Countess Road, Killarney, Co. Kerry

DRAWING TITLE: Proposed CEMP Layout

SHEET: A1

SCALE: 1:500

PROJECT NO. 7334 _ DRAWING NO. 1009 _ STATUS/ISSUE C

Appendix B

THIS DRAWING IS FOR PLANNING PERMISSION PURPOSES ONLY. FURTHER DRAWINGS AND STUDIES WILL BE REQUIRED FOR CONSTRUCTION AND TO ENSURE COMPLIANCE WITH RELEVANT BUILDING REGULATIONS AND STANDARDS.

Rev	Ch	Change Name	Date
P03	Ch-28	Issue for Planning	12/03/2026
P02	Ch-17	Change	13/11/2025
P01			22/10/2025

Overall Development Breakdown	
Total Number of Units	259
Total Application Site Area	6.44 Ha
Developable Area (excl creche)	5.77 Ha
Density	45 Units / ha
Public Open Space	c.11.00%

Site Application Boundary

Phasing Plan

- Phase 01
- Phase 02
- Phase 03
- Phase 04

Proposed Site Layout Plan (Phasing)

1:1000

Issue for Planning	DOM	DOM	MD	12/03/2026	P03	
Issue for Information	DOM	DOM	MD	13/11/2025	P02	
Issue for Information	DOM	DOM	MD	22/10/2025	P01	
Revision Description	drn.	ckd.	apr.	date.	rev.	

Client: Dipharma Unlimited Company
Project: Residential Development
Site: Countess Road, Killarney, Co Kerry
Title: Site Layout Plan (Phasing)

meitheal architects

RIAI Practice Number: | Practice Type Grade/Sector: G3 | Stage: P

Project Architect: Mark Dignam
A1 Sheet Scale: 1:1000, 1:616.86, 1:10

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Drawing Series 11000 - Plans

Project	Orig.	Volume	Level	Type	Role	Number	Rev.
251010	MA	SW	XX	DR	A	11013	P03

S:\2025 MA\251010\Working drawings\000-Site Drawings\251010-DES-001-N.pln Thursday 12 March 2026