17. SCHEDULE OF COMMITMENTS

17.1 Introduction

All mitigation and monitoring measures relating to the construction and operational phases of the Proposed Development are set out in the relevant chapters of this EIAR.

All mitigation which will be implemented during the various phases of the project are presented in Table 17-1 below.

The mitigation proposals in the below format provides an easy to audit list that can be reviewed and reported on during the future phases of the project. The tabular format in which the below information is presented, can be further expanded upon during the course of future project phases to provide a reporting template for site compliance audits.

All monitoring measures which will be implemented during the construction and operational phases of the project are outlined in Table 17-2. All monitoring measures were set out in the relevant chapters of this EIAR. The monitoring proposals are presented in terms of the monitoring requirement, frequency of monitoring and the mechanism for reporting results where applicable. By presenting the monitoring proposals in the below format, it is intended to provide a monitoring schedule that can be reviewed and tracked during all phases of the project to ensure all the required monitoring is completed as required.

17.2 EIAR Mitigation Measures

Table 17-1 Mitigation measures for the Pre-commencement, Construction, and Operational phases

Mitigation Measure	Reference	Mitigation Measure	Audit Result	Action Required
	Pre-Commencement Phase			
MM1	CEMP Section 1	All measures identified in the EIAR, Natura Impact Statement (NIS) and this Construction Environmental Management Plan, which will be finalised subsequent to any permission granted and updated prior to construction will include all mitigation measures identified to be adhered to during the pre-commencement and construction phases of the proposed development.		
MM2	CEMP Section 4.1	The main contractor will be required to engage a Construction Manager that will also fulfil the role of Environmental Manager (EM), and to monitor all site works and to ensure that methodologies and mitigation are followed throughout construction to avoid negatively impacting on the receiving environment.		
MM3	CEMP Section 2.3 EIAR Section 4	Prior to the commencement of any construction, entrances to the Proposed Development site will need to be fully established with appropriate security gates. Access to the site will be via a road which connects to the Western Distributor Road to the north and also via the Kingston Road (R337) to the south. A site construction compound inclusive of a parking area for construction worker's vehicles will be provided within the confines of the site. There will be no parking permitted for any vehicles associated with the Proposed Developments construction phase unless agreed with the local authority prior to works inception. A designated section of the site will be fenced off as the construction compound.		

MM4	CEMP Section 2.3 EIAR Section 5	› A site-specific Health and Safety Plan will be in place for the proposed site. All site staff will be made aware of and adhere to the Health and Safety Plan. › Operate a Site Induction Process for all site staff, › Ensure all site staff will have current Construction Skills Certification Scheme (CSCS) training or 'Safe Pass' cards, › Site hoarding will include Health and Safety warnings at appropriate intervals. › Fire extinguishers and first aid supplies to be available in the work area. › All adjacent roadways will be maintained in clean condition at all times. › Appropriate Personal Protective Equipment (PPE) to be worn at all times. › Biometric turnstiles will be used at the site to prevent unauthorised access to the site.		
MM5	CEMP Section 3 EIAR Section 15	▪ A Traffic Management Plan (TMP) for the construction stage will be developed and agreed with GCC prior to the commencement of works.		
MM6	CEMP Section 3 EIAR Section 6	A pre-commencement survey is recommended on each of the structures to assess the buildings prior to any works. The function of this survey will be to assess any changes in baseline environment since the time of undertaking the survey in 2023 and 2024. 3 trees identified as PRF-I are proposed for removal. While no roosting bats were recorded within any of the trees identified as PRF-Is, given the transient nature of tree roosts and in recognition of the fact that bats are a mobile species, a pre-commencement survey, at the appropriate time of year, will be undertaken on trees to be felled/pruned with suitable potential roost features, by a qualified ecologist to ensure there are no roosting bats. The requirement for a pre-commencement survey does not represent a lacuna in the survey assessment but is fully in line with industry best practice. The function of this survey will be to assess any changes in baseline environment since the time of undertaking the surveys in 2024. If a bat roost is identified within any of the trees to be removed/pruned, a bat derogation licence will be obtained from the NPWS, prior to felling and the felling activity will be supervised by a qualified ecologist.		

Construction Phase				
Fuel and Oil Control				
MM7	CEMP Section 3 NIS Section 6.2 EIAR Section 4, 7 & 8	› Minimal refuelling or maintenance of construction vehicles or plant will take place on site. Where possible, off-site refuelling will occur at a controlled fuelling station; › On-site re-fuelling will be undertaken using a double skinned bowser or a refuelling truck with spill kits kept onboard; › All oils, fuels, paints and other chemicals will be stored in a secure bunded construction hardstand area. Refuelling and servicing of construction machinery will take place in a designated hardstand area which is also remote from any drainage systems. A response procedure will be put in place to deal with any accidental pollution events and spillage kits will be available and construction staff will be familiar with the emergency procedures and use of the equipment; › A temporary drainage system shall be installed prior to the commencement of the construction works; › All works shall be undertaken in accordance with the CIRIA document, 'Control of Water Pollution from Construction Sites, guidance for consultants and contractors' › All plant and machinery will be serviced before being mobilised to site; › No plant maintenance will be completed on site, any broken down plant will be removed from site to be fixed; › Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site. Pumped concrete will be monitored to ensure there is no accidental discharge. Mixer washings are not to be discharged into surface water drains/sewers; › Discharge from any vehicle wheel wash areas is to be directed to on-site settlement tanks/ponds, debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility		
MM8	CEMP Section 4	› Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers. › If applicable, eliminate any sources of ignition in the immediate vicinity of the incident		

	NIS Section 6.2 EIAR Section 7 & 8	› Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill. › If possible, cover or bund off any vulnerable areas where appropriate such as drains or sensitive habitats. › If possible, clean up as much as possible using the spill control materials. › Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited. › Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action. › The Environmental Manager will inspect the site and will assist by providing any advice possible to ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring. › The Construction Manager will notify the appropriate regulatory body such as GCC and EPA etc. if deemed necessary.		
Prevention Pollution Control Measures				
MM9	CEMP Section 3 NIS Section 6.2 EIAR Section 4, 7 & 8	› There are no watercourses on site and surface water will not be directly discharged into any external water bodies, surrounding land, or adjacent roadways. Any run-off generated on-site will undergo the necessary filtration process as previously outlined in Section 3-1. › The works will be managed to ensure there will be no silt-laden run-off beyond the site boundary. This will be achieved through the use of appropriate excavation techniques during the initial construction works. Where necessary, silt fencing will be installed downslope of the construction areas, particularly where drains or drainage pathways are present. These measures will serve as a protective measure to contain silt material within the site. › Any requirement for temporary fills or stockpiles will be damped down or covered with polyethylene sheeting as required to avoid sediment release associated with heavy rainfall. › Excavations will be carried out using a suitably sized excavator and, in all circumstances, excavation depths and volumes will be minimised where practically possible.		

		› Excavated spoil will be stockpiled and contained entirely within the confines of the site boundaries. Any stockpile areas will be surrounded with silt fencing, if deemed necessary to prevent runoff. › The minimum number of soil/subsoils and bedrock material should be removed from site. Soil may be reused for landscaping elsewhere on the site. However, any excess construction material shall be removed from the area and sent to an authorized waste recovery facility. › Works shall not take place at periods of high rainfall and shall be scaled back if or suspended if heavy rain is forecast during excavation works. › High rainfall' is defined as follows: › >10 mm/hr (i.e. high intensity local rainfall events); › >25 mm in a 24-hour period (heavy frontal rainfall lasting most of the day); › In the event of encountering groundwaters during excavation, groundwater will be pumped out of the excavation using a pump equipped with a silt bag on the discharge pipe, if necessary, to capture any silty material prior to subsequent natural percolation to ground. The area surrounding the silt bag will be surrounded by silt fencing if deemed necessary. › No wastewater will be discharged on-site during the construction phase. Toilet facilities will be provided in a prefabricated sanitary unit which will be placed in the construction compound. This unit will have an enclosed wastewater holding tank which will be fitted with a fill level alarm and will be emptied on an as needed basis by the appropriately licensed contractor. › Good construction practices will be implemented at the site. This will ensure minimal risk. The Construction Industry Research and Information Association (CIRIA) provides guidance on the control and management of water pollution from construction sites, as outlined in *Control of Water Pollution from Construction Sites, guidance for consultants and contractors* (CIRIA, 2001). This guidance will be adhered to throughout the construction phase to ensure that surface water generated on site contains minimum sediment. › Adjacent drainage systems/groundwater need to be protected from sedimentation and erosion due to direct surface water runoff generated onsite during the construction phase. To prevent this from occurring surface water discharge from site will be managed and controlled within the site boundary for the duration of the construction works until the permanent surface water drainage system of the proposed site is complete. There will be no temporary construction phase uncontrolled discharges to surface water from the site.		

		› A temporary drainage system shall be installed, comprising sump areas which will allow existing runoff regimes to be maintained, prior to the commencement of the construction works to collect surface water runoff from the site during construction. › As construction advances there may be a requirement to collect and treat surface water within the site. This will be completed using perimeter swales at low points around the construction areas, and if required water will be pumped from the swales into sediment bags prior to overland discharge allowing water to percolate naturally to ground. › Any proposed discharge area will avoid potential surface water ponding areas, and will only be located where suitable subsoils are present; › All works shall be undertaken in accordance with the CIRIA document, 'Control of Water Pollution from Construction Sites, guidance for consultants and contractors. › All stockpiles will be damped down or covered in a sheet of polythene, as required, which will prevent the creation of nuisance dust, and will also prevent sediment runoff in times of heavy precipitation. Silt fencing will be installed around these stockpiles, if required. › Material stockpiles will be kept at least 10m from any manholes. › Preventative measures during construction have been incorporated into the Construction and Environmental Management Plan (CEMP), which will be updated upon grant of permission and to provide any additional measures required pursuant to planning conditions and agreements with the planning authority. › Self-contained port-a-loo toilets within portacabins with an integrated waste holding tank will be used at the site compounds, maintained by the providing contractor, and removed from site on completion of the construction works; and, › No wastewater will be discharged on-site during either the construction or operational phase.		
Air Quality and Dust Control				
MM10	CEMP 3 NIS Section 6.2 EIAR Section 4 & 9	› Any site roads with the potential to give rise to dust will be regularly watered, as required, during dry and/or windy conditions › The designated public roads outside the site and along the main transport routes to the site will be regularly inspected by Site Management for cleanliness, and cleaned as necessary › Material handling systems and material storage areas will be designed and laid out to minimise exposure to wind		

		➢ Water misting or bowsers will operate on-site as required to mitigate dust in dry weather conditions ➢ The transport of soils or other material, which has significant potential to generate dust, will be undertaken in tarpaulin-covered vehicles where necessary ➢ All vehicles leaving the construction areas of the site will rinse their wheels at a designated wheel wash area prior to entering the local road network. ➢ All construction related traffic will have speed restrictions on un-surfaced roads to 15 kph ➢ Daily inspection of construction sites to examine dust measures and their effectiveness. ➢ If deemed necessary, sections of the approach road will be swept using a truck mounted vacuum sweeper. ➢ All vehicles to switch off engines when not in use; ➢ No idling vehicles; ➢ On-road vehicles to comply to set emission standards; ➢ All non-road mobile machinery (NRMM) to be fitted with appropriate exhaust system and to be regularly serviced; ➢ Haul routes to be hard surfaced and cleaned and appropriate speed limits applied around the site; ➢ The methods of working will comply with all relevant legislation and best practice guidelines in reducing the environmental effects of the works. ➢		
		Air Quality and Dust Control		
MM11	CEMP 3 NIS Section 6.2 EIAR Section 4 & 9	➢ Any site roads with the potential to give rise to dust will be regularly watered, as required, during dry and/or windy conditions ➢ The designated public roads outside the site and along the main transport routes to the site will be regularly inspected by Site Management for cleanliness, and cleaned as necessary ➢ Material handling systems and material storage areas will be designed and laid out to minimise exposure to wind ➢ Water misting or bowsers will operate on-site as required to mitigate dust in dry weather conditions ➢ The transport of soils or other material, which has significant potential to generate dust, will be undertaken in tarpaulin-covered vehicles where necessary		

		› All vehicles leaving the construction areas of the site will rinse their wheels at a designated wheel wash area prior to entering the local road network. › All construction related traffic will have speed restrictions on un-surfaced roads to 15 kph › Daily inspection of construction sites to examine dust measures and their effectiveness. › When necessary, sections of the approach road will be swept using a truck mounted vacuum sweeper. › If dust levels become an issue, then all dust generating activities on site will cease until such time as weather conditions improve (e.g. wind levels drop or rain falls) or mitigation measures such as damping down of the ground are completed. › During peak vehicle movements, where there is a likelihood of dirt on construction vehicles exiting the site, a dedicated road sweeper will be put in place until these works are competed. › If dirt generation extends onto public roads, road sweeping will be carried out as well, including if necessary cleaning of silt from road gullies. › Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods. Material stockpiles containing fine or dusty elements shall be covered with tarpaulins. Aggregates will be transported to and from the site in covered trucks. › Where drilling or pavement cutting, grinding or similar types of stone finishing operations are taking place, measures to control dust emissions will be used to prevent unnecessary dust emissions by the erection of wind breaks or barriers. All concrete cutting equipment shall be fitted with a water dampening system. › A complaints log shall be maintained by the construction site manager and in the event of a complaint relating to dust nuisance, an investigation shall be initiated. › A dedicated road sweeper shall be put in place during peak vehicle movements. › Site roadways shall be maintained in a stoned hardcore condition not allowing soil to accumulate that may create dust. › Wheel wash equipment shall be set up at the site exit gate for all construction vehicles to pass through prior to leaving the site thus ensuring that no dirt etc. is transported outside the site onto the roadways. › All vehicles to switch off engines when not in use, › No idling vehicles,		

		› On-road vehicles to comply to set emission standards, › All non-road mobile machinery (NRMM) to be fitted with appropriate exhaust system and to be regularly serviced, › Haul routes to be hard surfaced and cleaned and appropriate speed limits applied around the site, › The aggregates required for the construction of the proposed development will be sourced, as much as is possible and practicable, from quarries and suppliers located as near as possible to the proposed development. This will reduce the potential for any negative impacts associated with the haulage of the materials to the site of the proposed development. Existing soils and subsoils located on the site will be used where possible to reduce the amount of such materials required for import onto the site. Aggregates will be transported to the site in tarpaulin covered trucks.		
Noise				
MM12	CEMP 3 EIAR Section 4 & 11	› Construction operations will in general be confined to the periods Monday-Friday 0800-1800 h and Saturday 0900-1300 h. › Hooting will be prohibited onsite. Drivers of plant and vehicles will be instructed to avoiding hooting at all times. › Plant used onsite during the construction phase will be maintained in a satisfactory condition and in accordance with manufacturer recommendations. In particular, exhaust silencers will be fitted and operating correctly at all times. Defective silencers will be immediately replaced. › Queuing of trucks on public roads will be prohibited. › Machinery not in active use will be shut down. › A site representative will be appointed as a liaison officer with the local community. › Any complaints of noise received during the construction phase will be logged in a register, and investigated immediately. Details of follow-up action will be included in the register. › Where it is proposed to import potentially noisy plant to the site, the potential impact of noise emissions will be assessed in advance. › Guidance set out in BS 5228-1:2009 with respect to noise control will be applied throughout the construction phase.		

		› Advance notification will be given to residents immediately outside the site boundary when works are proposed within 50m of their dwellings.		
Traffic Management				
MM13	CEMP Section 3 EIAR Section 4 & 15	› A detailed haulage plan will be put in place to ensure minimal impact on the surrounding road network. Spoil removal from site will be kept to a minimum with a detailed site survey completed to ascertain where spoil can be distributed on the site. › All deliveries and removals will be subject to stringent site rules governing the loading / off-loading times, location of loading / off loading, covering of loads and cleaning of vehicles exiting the site, etc. › Delivery loads to and from the site and management of large deliveries on site to occur outside of peak periods. › No vehicle will be allowed to stop or park on the access road to the proposed development site. › Ample parking will be provided within the site to cater for the staff and visitors during the construction phases of the proposed development. › Construction traffic will be managed and scheduled to ensure no queueing occurs on either the internal road system or the main approach roads. The provision of an on-site vehicle staging area will facilitate waiting vehicles. › Routine sweeping/cleaning of the road and footpaths in front of the site; and › No uncontrolled runoff to the public road from dewatering/pumping carried out during construction activity.		
Waste Management				
MM14	CEMP Section 3.10 EIAR Section 4	Construction waste will arise on the project mainly from excavation and unavoidable construction waste including material surpluses and damaged materials and packaging waste. Appropriate measures will be taken to ensure excess waste is not generated during construction, including; › Ordering of materials will be on an ‘as needed’ basis to prevent over supply to site. › Purchase of materials pre-cut to length to avoid excess scrap waste generated on-site.		

		› Require suppliers to use least amount of packaging possible on materials delivered to the site. › Ensuring correct storage and handling of goods to avoid unnecessary damage that would result in their disposal. › Ensuring correct sequencing of operations. › Use reclaimed materials in the construction works. Hazardous waste will be kept separate from all other construction waste to prevent contamination and removed appropriately. In addition to fuel as outlined above, the potentially hazardous wastes that may be generated at the site during the construction include; › Paints including all associated by products. › Glues and solvents. Asphalt materials from roofing products and external paving finishes		
		Biodiversity		
MM15	CEMP Section 2.3 EIAR Section 6 Landscape Design Report	The Landscape Design Report and Chapter 6 of the EIAR outlines a number of biodiversity friendly measures which are as follows: › The use of native species will generally be preferred. However, a complimentary element of non-native species will also be used, where appropriate to achieve particular aims or requirements. › The planting of predominantly pollinator friendly shrub and herbaceous species will integrate the scheme in line with the 'All Ireland Pollinator Plan'. › Significant additional native tree planting mitigates necessary removals and ultimately will significantly increase the sites tree and vegetation cover overtime. › Proposed tree planting includes a selection of native and naturalised trees such as alder, beech, birch, cherry, oak, pine, rowan, sycamore and whitebeam. The use of such trees will provide vertical scale and structure to the landscape over time, as well as ecological benefits. › Approximately 238 linear metres of clipped beech hedgerow will be provided. Although the proposed beech hedgerows are likely to be of lower ecological value to the existing native		

		hedgerows on site, they will result in a net gain in terms of hedgerow habitat post-construction. › Whilst the proposed landscaping does not provide replacement treelines to offset the loss of those currently on site, it does provide for the planting of approximately 1,310m2 of woodland understorey, comprised of native species (hazel, holly, spindle and guelder-rose), in addition to 202 parkland, open space and feature trees and 389 street trees which will be comprise of native and non-native species. Therefore, it is likely that the Proposed Development will result in a net gain in terms of overall number of trees within the site. › Approximately 784m^2 of wildflower meadow of Irish provenance, sourced from Design By Nature, or equivalent, will be created. A low frequency mowing regime in these areas will reduce the overall volume maintenance in the scheme and contribute to a reduction of carbon footprint. › The proposed landscape plan aims to create a number of linear green corridors suitable for bat feeding.		
		Invasive Species Management		
MM16	CEMP Section 3.9 NIS Appendix 4 EIAR Section 6	**Three Cornered Leek** The following management is proposed in relation to Three-cornered Leek: › An ecologist will be on site to supervise the treatment. › The infested area will be marked out with posts and hazard tape prior to any machinery ingress or works within or near this area. › Chemical treatment is the chosen treatment method. It is advised to treat the plant *in-situ* and avoid disturbance and the increased risk for spread and dispersal. › This plant can be treated with a Glyphosate based chemical herbicide on an annual basis. It is recommended that a Glyphosate-based herbicide will be applied as a spot treatment to individual plants, or by foliar and stem spray in early spring before the plant flowers which typically happens between April and June. It is best to manually break the leaves prior to applying the chemical to ensure it enters the leaf. Follow-up annual treatments are necessary as large numbers of shoots may re-appear the following year as may new seedlings.		

		› The timing of the treatment applied is vital for the eradication of three-cornered leek. The control methods must be implemented in March or April when the leaves of the three-cornered leek are fully formed. Control methods should not be carried out if plants have finished flowering and produced seed (from the outset of May) as the movement of plants at this stage in the plant's cycle can cause a further spread of the invasive species. › Three-cornered leek produces vast amounts of seeds annually and these seeds can persist and remain dormant in the soil for years before germinating. Due to this, a monitoring programme will be established to eradicate the invasive plant where the plants currently exist onsite. Therefore, it is key to undertake the control and treatment measures for a consecutive number of years to eradicate the seed bank and bulbs. The area will need to be surveyed by an ecologist in March/April, May and again in September for the presence of Three-cornered leek for a minimum of 3 years after the treatment to ensure no further spread is taking place. **Sea Buckthorn** Mechanical/ physical removal of Sea buckthorn controls the spread of the invasive species by either damaging or removing the plant material via physical action, i.e., uprooting, felling, slashing, mowing, grubbing etc. Juvenile Sea buckthorn saplings were recorded within the site. It is anticipated that the construction phase will span 2 years and as such it is likely to mature with time, in the absence of control measures being implemented. The recommended treatment methodology for Sea buckthorn includes; › Any juvenile new shoots of Sea buckthorn will be removed by hand pulling or manual removal using hand tools. The plant will be physically cut and dug up from the root either by hand or using an excavator to grub up the plant. › Larger stumps will be cut and the stumps painted with Glyphosate herbicide. › Following clearance of woody material, any necessary excavation of the ground will be undertaken. As sea-buckthorn can readily regenerate from root and rhizomatous material present in soil, any soil arising from areas infested with sea-buckthorn must be contained and disposed of appropriately. › The vegetation material can be disposed of by burning or incineration.		

		If for any reason, burning of plant material is not feasible on-site this material and the soil potentially contaminated within root or rhizome fragments must be gathered and disposed of off-site, to a waste disposal facility that has a pollution prevention and control permit or waste management licence. In order to move material potentially contaminated with Third or First Schedule invasive plant species, a licence is required to be obtained from NPWS. The conditions of the permit or licence of the waste disposal facility must allow the disposal of invasive plants at the site. Delivery should be agreed with the waste site in advance to make sure they can accept material containing invasive plants. When transporting invasive plant material and soil potentially contaminated with invasive plant material, any vehicle used must be covered or securely sheeted so that plant material cannot be accidentally dispersed during transportation.		
		Operational Phase		
MM17	EIAR Section 4 EIAR Section 6 CEMP Section 2	Any underground services encountered during the works will be surveyed for level and where possible will be left in place. If there is a requirement to move the service, then the appropriate body (ESB, Gas Networks Ireland, etc.) will be contacted, and the appropriate procedure put in place. Back fill around any utility services will be with dead sand/pea shingle where appropriate. All works will be in compliance with required specifications. It is proposed to direct wastewater generated from the Proposed Development to an existing Uisce Eireann owned 225mm foul sewer line located west of the site, along the southern arm junction off the adjacent roundabout and Altan Road. The 225mm foul sewer outfalls to an existing Uisce Eireann 375mm foul network. The foul sewer network has been designed using Causeway Flow drainage modelling software. All gravity pipes will be thermoplastic structured wall pipes, with diameters ranging from 150mm to 225mm. Gradients will vary between 1/21 and 1/200, and flow velocities will remain within the required range of 0.75 to 2.5 m/s, in accordance with Uisce Éireann standards. A pre-connection application was submitted to Uisce Eireann for the wastewater demand from the Proposed Development, and a Confirmation of Feasibility (CoF) statement has been received.		

		As outlined in the accompanying Civil Design Report 9Appendix 4-4 of the EIAR) which has been prepared by Tobins Consulting Engineers, the proposed Storm water drainage infrastructure incorporates the philosophies of nature-based Sustainable Drainage Systems (SuDS) to manage surface water runoff quantity and quality. Water will be provided to the Proposed Development via a new connection to a nearby Uisce Eireann owned 315mm watermain which runs along the Kingston Road. The installation of services and connections to the residential units will be carried out as follows: › The area where excavations are planned will be surveyed and all existing services will be identified. › All relevant bodies (i.e., ESB, Gas Networks Ireland, Eir, GCC etc.) will be contacted and all drawings for all existing services sought. › A traffic management plan will be produced if required for connection works to the existing service network. › A road opening licence will be obtained where required for connection to existing services. › All plant operators and general operatives will be inducted and informed as to the location of any services. › A tracked 360-degree excavator or similar will be used to excavate the trench to the required dimensions. › All excavated material will be removed to an authorised waste recovery facility or, if suitable, stockpiled and reused for backfilling and landscaping where appropriate. › Once the trench has been excavated the ducting/pipework will then be placed in the trench as per specification. › Once the service ducts/pipework has been installed couplers will be fitted as required and capped to prevent any dirt etc. entering the ducts/pipes. › The as built location of the ducting/pipework will be surveyed using a total station/GPS. › Backfill material will be carefully placed so as not to displace the ducting/pipework within the trench. › The appropriate warning/marker tape will be installed above the ducts/pipes at the appropriate depths.		

		› The surface will be reinstated as per original specification or to the requirements of the site layout/Local Authority as appropriate.		

17.3 EIAR Monitoring Measures

Table 17-2 Monitoring measures for the Pre-commencement, Construction, and Operational phases

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
Pre-Construction Phase						
MX1	General Construction Measures	EIAR Section 4 CEMP Section 4	The main contractor appointed to carry out the works on site will be required to provide a level of supervision on site in the form of an Environmental Manager. Responsibilities will include: › Undertake inspections and reviews to ensure the works are carried out in compliance with the CEMP. › Monitor the implementation of the CEMP, particularly all proposed/required Environmental Monitoring. › Identify environmental training requirements and arrange relevant training for all levels of site-based staff/workers	On going	Monthly	Site Contractor/Environmental Manager
MX2	Biodiversity	EIAR Section 6 CEMP Section 3	**Monitoring** Evidence should be provided of how the mitigation measures will be monitored, and, should mitigation failure be identified, how that failure will be rectified. The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment.	Once	As required	Environmental Manager
MX3	Archaeological Monitoring	EIAR Section 12	As detailed in Section 12.3.2 of the EIAR, the northern area of the Proposed Development site has been subject to significant modern ground disturbance while the southern end remains as a largely undisturbed area of green field pastureland containing areas of bedrock outcrops and waterlogging. The lands have been assessed by a geophysical specialist (Dr. Ger Dowling) and were considered to be unsuitable for an archaeo-	Once	As Required	Project Archaeologist

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
			geophysical survey due to the presence of areas of prior ground disturbance, undulating terrain with bedrock outcrops, waterlogged conditions and the presence of overhead electricity cables. A programme of archaeological test trenching, under licence by the National Monuments Service, will therefore be carried within the Proposed Development site in advance of the construction phase. This archaeological investigation will also include the compilation of a written and photographic record of the existing field boundaries within the Proposed Development site. In the event that any sub-surface archaeological deposits, features or objects are identified during test trenching, their locations will be recorded and securely cordoned off while the National Monuments Service are notified of the discovery and consulted to determine further mitigation measures, which may entail preservation *in situ* by avoidance or preservation by record through a systematic archaeological excavation.			
Construction Phase						
MX4	Air Quality and Dust Control	CEMP Section 3 EIAR Section 4 & 8	It is also proposed to carry out dust monitoring at the site during the construction phase. Monitoring will be carried out quarterly using the Bergerhoff method. This monitoring will ensure that the mitigation measures outlined above are functional and being implemented. A complaints log will be maintained by the construction site manager and in the event of a complaint relating to dust nuisance, an investigation shall be initiated. A sample Complaints Form is included in the CEMP.	Quarterly	As Necessary	Environmental Manager
MX5	Plant and Equipment Inspections	CEMP Section 4 EIAR Section 4	All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. Fule and chemical stores including tanks and drums will be regularly inspected for leaks and signs of damage.	As Required	Monthly	Environmental Manager

Ref. No.	Reference Heading	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
MX6	Plant and Equipment Inspections	CEMP Section 4 EIAR Section 4	All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. Fuel and chemical stores including tanks and drums will be regularly inspected for leaks and signs of damage.	As Required	Monthly	Environmental Manager
MX7	Traffic and Transport	CEMP Section 3 EIAR Section 4	The designated public roads outside the site and along the main transport routes to the site will be regularly inspected for cleanliness, and cleaned as necessary.	Daily	Monthly	Environmental Manager