

Outline Construction Methodology



Ballinrea Solar Park
110kV Grid Connection (Amended)



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00	RON	AC	01.06.23	Issued for Client Review
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02	POS	ER	12.12.25	Issued for Planning Amendment for section of previously permitted 110kV Grid Connection.
03	POS	ER	03.02.26	Revised as per Orsted comments.
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Proposed Route changes denoted throughout in Red text.

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1.0 Introduction

The development of the 110 kV substation, grid connection and associated infrastructure to connect the permitted Ballinrea Solar Farm (PI. Ref. 17/6784, ABP Ref. PL04.303013) to the existing electricity grid at Raffeen 220 kV Substation has previously been granted permission by An Bord Pleanála as ‘Strategic Infrastructure Development’ (SID) under the provisions of Section 182A of the Planning and Development Act 2000 as amended (Case Number ABP – 317706). The solar farm and 110kV substation at Ballinrea are now substantially complete.

This Addendum report is prepared in support of a request to An Comisiún Pleanála to alter the permitted scheme in accordance with Section 146B of the Planning and Development Act 2000, as amended

The proposed 110kV grid connection is entirely underground for circa 6.6km with a section of approx. 0.4km subject to this planning amendment. Originating in Raffeen 220 kV substation, traversing in a mainly western direction to the permitted 110 kV on site substation in Ballinrea Solar Farm. The permitted underground high voltage (HV) ducting route will be installed in permitted solar farm farmlands and public roads. The proposed route alignment for this planning amendment will be installed within consented third party lands. The underground cable works will consist of the installation of 6 No. ducts in an excavated trench to accommodate 3 No. power cables, 2 No. fibre communications cables and 1 No. earth continuity conductor.

This document is intended to be used as an aid to understand the methodologies to be employed during construction and should be read in conjunction with all other specialist reports which accompany the Planning Amendment Application. In addition, this document will be revised and updated prior to the commencement of any construction activities, detailed Method Statements will be prepared in respect of each aspect of the proposed development.

**Table 1 - Summary of Ballinrea Solar Farm 110 kV Grid Connection to Raffeen 220 kV Substation
Design Route**

Note - highlighted section 6 refers to the cable route amendment

Section	Description (all lengths are approximate and to be confirmed at detailed design stage)
Section 1 UGC within consented third party land and public road from Raffeen Substation to Joint Bay 01	The grid connection route begins within the Raffeen substation compound. The cable exits at the northeastern side of the substation and travels in a southern direction initially through the consented third party lands of Folio no. CK147716F and then in a western direction through the consented third party lands of Folio no. CK147716F & CK157531F. From here the permitted 110 kV UGC route joins the public road and travels south on the L-6472 (Raffeen Road) for approx. 120 m to the location of Joint Bay 01. UGC Section Length approx. 703 m
Section 2 UGC within Public Road from Joint Bay 01 to Joint Bay 02	The grid connection continues south within the curtilage of the L-6472 (Raffeen Road) local road for approx. 610 m where it then merges onto the L-2490 (Fernhill Road) and continues north for approx. 140 m where it then reaches the location of Joint Bay 02. UGC Section Length approx. 750 m
Section 3 UGC within Public Road from Joint Bay 02 to Joint Bay 03	The grid connection continues north within the curtilage of the L-2490 (Fernhill Road) local road for approx. 713 m where it then reaches the location of Joint Bay 03. UGC Section Length approx. 713 m
Section 4 UGC within consented third party land and public road from Joint Bay 03 to Joint Bay 04	The grid connection continues north within the curtilage of the L-2490 (Fernhill Road) local road for approx. 285 m where it leaves the public road and enters into the consented third party lands of Folio no. CK142213F & CK3006. The grid connection continues in a northern direction through these consented lands for approx. 98 m where it then re-enters the L-2490 (Fernhill Road). Continuing north within the L-2490 (Fernhill Road) for approx. 284 m where it then reaches the N28 (Ringaskiddy Road) national road. The grid connection briefly travels west to the location of Joint Bay 04 within the hard shoulder of the N28 (Ringaskiddy Road) public road.

	UGC Section Length approx. 686 m
Section 5 UGC within consented third party land and public road from Joint Bay 04 to Joint Bay 05	The grid connection continues northwest within the curtilage of the N28 national road (Ringaskiddy Road) for approx. 422 m where it leaves the curtilage of the N28 national road (Ringaskiddy Road) and enters into a grassed section (folio no. CK156559F) for approx. 97m in order to avoid the Shannonpark roundabout. The grid connection re-enters the curtilage of the N28 national road (Carr's Hill) and travels north for approx. 136 m. From here the UGC leaves the N28 and travels west within consented third party land Folio no. CK59035F where Joint Bay 05 is located. UGC Section Length approx. 676 m
Section 6 UGC within consented third party land from Joint Bay 05 to Joint Bay 06	The grid connection continues west from Joint Bay 05 location within consented third party land of Folio no. CK59035F. The UGC route then briefly enters into consented third party land of Folio no. CK203011F for approx. 53 m before re-entering folio no. CK59035F. From here the grid connection travels north through consented third party lands of Folio no. CK23427 & CK77185F before turning and traveling in a western direction through consented third party land of Folio no. CK197626F where the grid connection will pass beneath the permitted M28 motorway construction. Note: The section crossing the proposed M28 corridor was agreed with the M28 in advance of the original SID application being submitted. This section of the cable route which crosses the M28 has already been constructed. Having traversed the M28 section the grid connection briefly enters and travels south through consented third party lands of Folio no. CK112009F & CK195852F & CK197626F. The following section is subject to this planning amendment application: From here the grid connection turns and travels west within the consented third party land of Folio no. CK77185F. The grid connection travels west within this folio for approx. 184 m until Joint Bay 06 location is reached. UGC Section Length from Joint Bay 05 to Joint Bay 06 approx. 653 m
Section 7 UGC within consented third party land and	The grid connection continues west from Joint Bay 06 location within consented third party land of Folio no. CK77185F for approx. 185 m where it then merges onto the L2473 local road (Shannonpark Road).

public road from Joint Bay 06 to Joint Bay 07	From here the grid connection then travels southwest within the curtilage of the L2473 local road (Shannonpark Road) for approx. 433 m where Joint Bay 07 is located within the carriageway of the local road. UGC Section Length from Joint Bay 06 to Joint Bay 07 approx. 618 m
Section 8 UGC within public road from Joint Bay 07 to Joint Bay 08	Section 8 initially starts at Joint Bay 07 located on the L2473 local road (Shannonpark Road) and briefly travels west for approx. 25m where it then merges onto the L2464 local road (Ballinrea Road). From here the grid connection travels north within the curtilage of the L2473 local road (Shannonpark Road) for approx. 600m to the location of Joint Bay 08 UGC Section Length approx. 625 m
Section 9 UGC within public road and permitted solar farm lands from Joint Bay 08 to Joint Bay 09	The grid connection travels north within the curtilage of the L2473 local road (Shannonpark Road) for approx. 510m. From here the grid connection leaves the curtilage of the public road and enters the permitted Ballinrea Solar Farm boundary. Now traveling within Ballinrea Solar Farm the grid connection travels east for approx. 117 m to the location of Joint Bay 09. UGC Section Length approx. 628 m
Section 10 UGC within permitted solar farm lands from Joint Bay 09 to Ballinrea Solar Farm Substation	The grid connection continues traveling within Ballinrea Solar Farm in a mainly northeastern direction until the permitted Ballinrea Solar Farm Substation location is reached. UGC Section Length approx. 606 m
Please refer to Figure 1 and to the planning amendment drawings submitted for location details.	

2.1 Trenching Methodology

The following section outlines the typical methodology to be followed during trenching works. (It should be noted that there will be no change from the trenching methodology in use for the permitted development, construction of which has already commenced.)

- The Contractor, and their appointed Site Manager, will prepare a targeted Method Statement concisely outlining the construction methodology and incorporating all mitigation and control measures included within the planning application and accompanying reports and as required by planning conditions where relevant;
- All existing underground services shall be identified on site prior to the commencement of construction works. This amendment is required following identification of a high pressure watermain located in the Shannon Park Road;
- At watercourse crossings, the contractor will be required to adhere to the environmental control measures outlined within the planning application and accompanying reports, the detailed Construction Environmental Management Plan (CEMP) to be prepared prior to the commencement of construction, and best practice construction methodologies;
- Where the cable route intersects with culverts, the culvert will remain in place (where possible) and the ducting will be installed either above or below the culvert to provide minimum separation distances in accordance with ESB and Irish Water specifications;
- In the event that culverts require removal for ducting installation, it is proposed that a suitable method of damming the water source and pumping the water around the work area would be set out in a method statement and agreed with the relevant stakeholders. Once the ducts are installed the culvert will be reinstated to match existing levels and dimensions. If works of this nature are required, the contractor will liaise with Inland Fisheries Ireland in advance of works;
- Traffic management measures will be implemented in accordance with those included in the Traffic Management Report, and a detailed Traffic Management Plan will be prepared and agreed with Cork County Council;
- Excavated material will be temporarily stockpiled onsite for re-use during reinstatement. Stockpiles will be restricted to less than 2m in height. Stockpiles will be located a minimum of 50m from surface water features and all stockpiling locations will be subject to approval by the Site Manager and Project Ecological Clerk of Works (ECoW);
- Excavated material shall be employed to backfill the trench where appropriate and any surplus material will be transported off site and disposed of at a fully authorised soil recovery site;
- Any earthen (sod) banks to be excavated will be carefully opened with the surface sods being stored separately and maintained for use during reinstatement;
- The excavated trench will be dewatered if required, from a sump installed within the low section of the opened trench. Where dewatering is required, dirty water will be fully and appropriately attenuated, through silt bags, before being appropriately discharged to vegetation or surface water drainage feature;
- Where required, grass will be reinstated by either seeding or by replacing with grass turves;
- No more than a 100m section of trench will be opened at any one time. The second 100m will only be excavated once the majority of reinstatement has been completed on the first;

- The excavation, installation and reinstatement process will take on average of 1 day to complete a 100m section;
- Where the cable is being installed in a roadway, temporary reinstatement may be provided to allow larger sections of road to be permanently reinstated together.
- Following the installation of ducting, pulling the cable will take approximately 1 day between each joint bay, with the jointing of cables taking approximately 1 week per joint bay location.



Figure 2 - Typical 110kV Underground Duct Installation

2.2 Ducting Installation Methodology

For the trenching and ducting works the following step by step methodology will apply:

1. Grade, smooth and trim trench floor when the required 1315mm depth and 825mm width have been obtained.
2. Place bedding layer of Cement Bound Granular Mixture B (CBGM B) material in accordance with the specification and compact it so that the compacted thickness is as per the drawings.
3. Lay the bottom row of ducts in trefoil formation as detailed on the design drawings. Use spacers as appropriate to establish horizontal duct spacing. Fit a secure cap / bung to the end of each duct run to prevent the ingress of dirt or water.
4. Carefully surround and cover ducts with CBGM B in accordance with the design drawings and specifications and thoroughly compact without damaging ducts.
5. Place cable protection strips on compacted CBGM B directly over the ducts.
6. Lay the top row of ducts onto the freshly compacted CBGM B including the cable protection strips above the bottom row of ducts. Place a secure cap at the end of each duct to prevent the ingress of dirt or water.
7. Carefully surround and cover ducts with CBGM B material in accordance with the drawings and thoroughly compact without damaging ducts.

8. Place red cable protection strip on top of compacted CBGM B over each set of ducts as shown on the drawings.
9. Place and thoroughly compact CBGM B material or Clause 804 backfill or soil backfill as specified and place warning tape at the depth shown on the drawings.
10. For concrete and asphalt/bitmac road sections, carry out immediate permanent reinstatement in accordance with the specification and to the approval of the local authority and/or private landowners, unless otherwise agreed with local authorities (Figure 3).
11. For unsurfaced/grass sections, backfill with suitable excavated material to ground level leaving at least 100 mm topsoil or match existing level at the top to allow for seeding or replace turves as per the specification of the local authority or landowner, for this project the cable will be mostly within public roads with some sections through solar farm access tracks and private land (Figure 4).
12. Clean and test the ducts in accordance with the specification by pulling through a brush and mandrel. Install 12 mm polypropylene draw rope in each duct and seal all ducts using robust duct end seals fitted with rope attachment eyes in preparation for cable installation at a later date. All the works should be witnessed by ESNB Clerk of Works (CoW) as required.

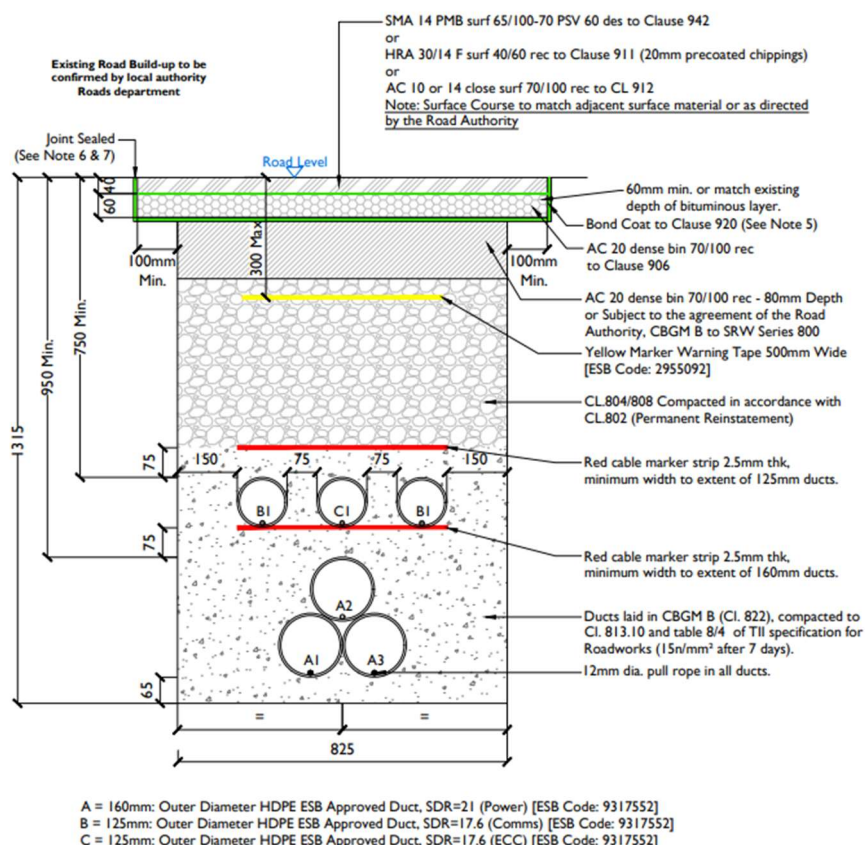


Figure 3 - Typical Trench in Roadway

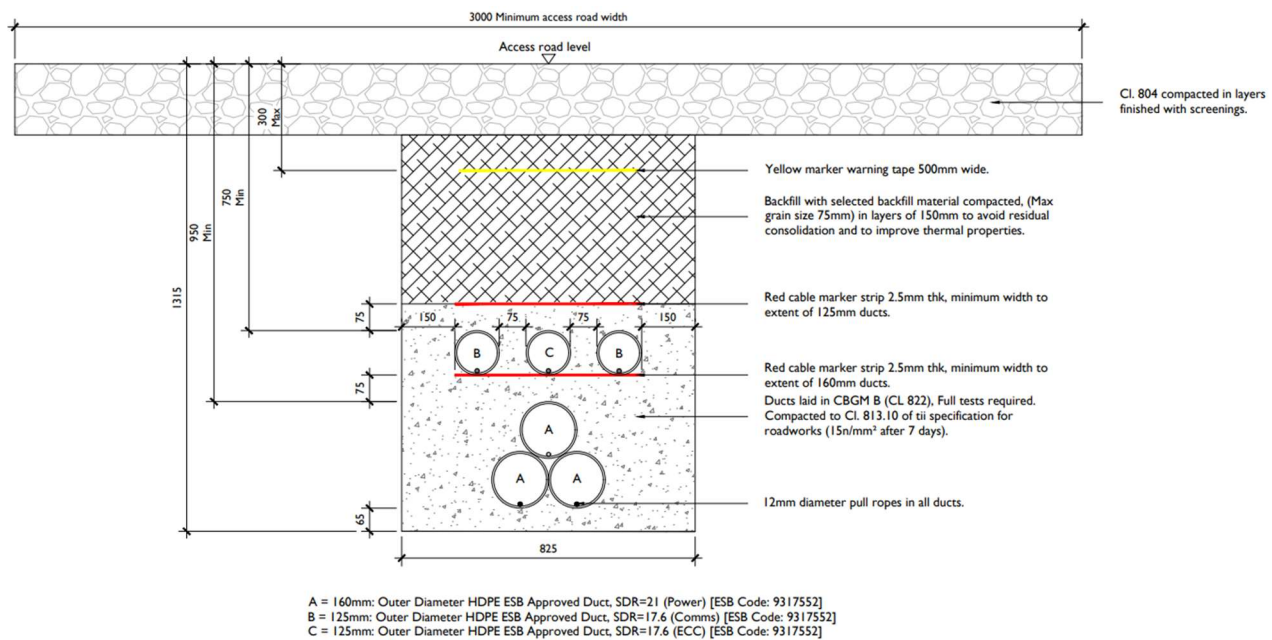


Figure 4 - Typical Trench in Off Road Section with access track

Equipment:

- 1 no. tracked excavator (only rubber tracked machines will be allowed on public roads);
- 1 no. dumper or tractor and trailer.

Materials:

- Sand for pipe bedding;
- Ready-mix Concrete where necessary (delivered to site);
- Trench backfilling material (excavated material and aggregates) to relevant specifications;
- 160mm diameter HDPE ducting;
- 125mm diameter HDPE ducting;
- Temporary Surface Reinstatement Materials

2.2.1 On Public Road

The majority of the 110kV route is located within road carriages and where applicable the trench will be in the non-trafficked strip between the wheel marks on the road, the presence of exiting utilities and the nature of the road and the adjoining terrain will be assessed in selecting the final position of the cables. It is preferable to excavate a trench within the middle of the lane, or the middle of the roadway to reduce load on the cable. However, given the narrow profile of local roads this may not always be possible.

2.2.2 On Private Tracks

Where the cable is installed in private tracks the location where the cable is laid will depend on several factors, width of track, bends along the track and crossings. Where the track needs to be widened stone will be brought in to build up the area to the same level of the track. The excess material from the track will be used elsewhere

on reinstatement works where appropriate and any surplus material will be transported off site and disposed of at a fully authorised soil recovery site.

2.3 Surface Cable Markers & Marker posts

Surface cable markers will be placed along the route where cable depth is unavoidably shallow, due to constraints such as existing services, to indicate the precise location of the UGC. These markers will be metallic plates in accordance with ESB standards.

Marker posts will be used on non-roadway routes to delineate the cable route and joint bay positions. Corrosion proof aluminium triangular danger sign, with 700mm base, and with centred lightning symbol, on engineering grade fluorescent yellow background shall be installed in adequately sized concrete foundations. Marker posts shall also be placed in the event that burial depth is not to standard. Siting of marker posts to be dictated by ESBN as part of the detailed design process. (Figure 5)

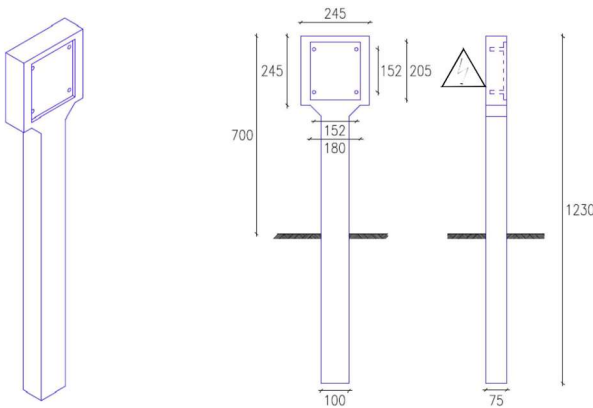


Figure 5 - Typical ESB Marker Posts Example

2.4 Managing Excess Material from Trench

All excavated material will be temporarily stored adjacent to the trench prior to re-use in the trench reinstatement (where applicable). Stockpiles will be restricted to less than 2m in height. Where excess material exists, it will be disposed of to a licensed facility.

2.5 Storage of Plant and Machinery

All plant, machinery and equipment will be stored on site within the works area or within the temporary construction compound located within the permitted Ballinrea Solar Farm site. Oils and fuels will not be stored on site and will be stored in an appropriately bunded area within the temporary storage compound.

2.6 Watercourse Damming and Reinstatement

Sections of the proposed trenching and ducting will involve instream works at two watercourse crossing locations to install cabling. Open trench dam and flume involves damming the watercourse upstream and downstream of the proposed trench and placing an appropriately sized (usually 500mm to 1000mm diameter) flume pipe between the two dams to allow the water to flow through the pipe creating a dry cell in between the two dams. A trench is then opened, the services brought across, the riverbed is re-instated, and the dams and temporary flume pipe taken away. This method ecologically beneficial and is less likely to stir up suspended solids than pumping and there are no mechanical parts to break down.

To facilitate the works, these watercourses will be dammed, and the water diverted over or around the works using either a flume pipe or a diversion channel. Following the completion of works at the watercourse, the dam will be removed, and the watercourse reinstated. See drawings 05887-DR-319, 05887-DR-320 and 05887-DR-322

2.7 Joint Bays and Associated Chambers

It is proposed to locate Joint Bay no. 6 within the amended route in consented third party lands. Joint Bays are to be installed approximately every 650m - 850m along the UGC route to facilitate the jointing of 2 No. lengths of 110kV UGC. Joint Bays are typically 6m x 2.5m x 2.05m pre-cast concrete structures installed below finished ground level. Joint Bays will be located in the non-wheel bearing strip of roadways, however given the narrow profile of local roads this may not always be possible. Please refer to typical JB arrangement Drawing no. 300101179-DR-810.

In association with joint bays, Communication Chambers will be required at every joint slab location to facilitate communication links. Earth Sheath Link Chambers are also required at every joint bay along the cable route. Earth Sheath Links are used for earthing and bonding cable sheaths of underground power cables, so that the circulating currents and induced voltages are eliminated or reduced. Earth Sheath Link Chambers and Communication Chambers are located in close proximity to joint bays. Earth Sheath Link Chambers and Communication Chambers will typically be pre-cast concrete structures with an access cover at finished surface level.

The precise siting of all Joint Bays, Earth Sheath Link Chambers and Communication Chambers is subject to detailed design. Marker posts will be used on non-roadway routes to delineate the duct route and joint bay positions.

The following steps outline the methodology for joint bay construction and reinstatement:

1. The contractor will excavate a pit for joint bay construction, including for a sump in one corner.
2. Grade and smooth floor; then lay a 50 mm depth thick sand on 200 mm thick Clause 804 granular material.
3. Place pre-cast concrete sections on sand bedding.
4. Where joint bays are located under the road surface the joint bay will be backfilled with compacted layers of Clause 804 and the road surface temporarily reinstated as specified by the local authority.
5. Precast concrete covers may be used as temporary reinstatement of joint bays at off road locations. These covers are placed over the constructed joint bay and are then removed at the cable installation stage of the project.
6. At a later date to facilitate cable installation and jointing, reinstate traffic management signage, secure individual sites, re-excavate three consecutive joint bays and store excavated material for reuse.

3.0 Traffic Management

Traffic management and road signage will be in accordance with the Department of Transport: Traffic Signs Manual - Chapter 8: Temporary Traffic Measures and Signs for Road Works and in agreement with Cork County Council.

All traffic management measures will comply with those contained in the Construction Traffic Management Plan to Cork County Council and agreed in writing in compliance with Condition 4(d) of the grant of permission under ABP-317706-23. Please also refer to the accompanying traffic Impact Assessment Addendum prepared by Alan Liscombe.

4.0 Reinstatement of Private Land

Once all construction works are complete, the work areas will be reinstated with excavated soil and either seeded out with native species, allowed to vegetate naturally, or reinstated with excavated grass turves and will be restored to their original condition as specified in the as specified in the permitted development.

5.0 Implementation of Environmental Protection Measures

Please refer to the environmental protection measures in the Construction Environmental Management Plan (CEMP) which has been submitted to Cork County Council and agreed in writing in compliance with Condition 4(d) of the grant of permission under ABP-317706-23

This method statement will be adhered to by the contractors and will be overseen by the project representative/foreman. The following documents will contribute to the preparation of the method statements in addition to those measures proposed below:

- Inland Fisheries Ireland (2016) *Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters*. Inland Fisheries Ireland, Dublin,
- *National Roads Authority (2008) Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes*. National Roads Authority, Dublin;
- E. Murnane, A. Heap and A. Swain. (2006) *Control of water pollution from linear construction projects*. Technical guidance (C648). CIRIA;
- E. Murnane et al., (2006) *Control of water pollution from linear construction projects*. Site guide (C649). CIRIA.
- Murphy, D. (2004) *Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites*. Eastern Regional Fisheries Board, Dublin;
- H. Masters-Williams et al (2001) *Control of water pollution from construction sites. Guidance for consultants and contractors* (C532);
- Enterprise Ireland (unknown). *Best Practice Guide (BPGCS005) Oil storage guidelines*;
- Law, C. and D'Aleo, S. (2016) *Environmental good practice on site pocket book*. (C762) 4th edition. CIRIA;
- CIRIA *Environmental Good Practice on Site (fourth edition) (C741) 2015*.

The proposed works will be carried out in accordance with the following best practice construction measures:

- If required, an ecological clerk of works shall be engaged to periodically inspect all elements of the works for their entire duration;

- All materials shall be stored at the main contractor compound and transported to the works zone immediately prior to construction;
- During the construction period appropriate containment measures such as sandbags or similar, shall be installed on site where material is required to be stored temporarily, thus ensuring adequate protection from silt-laden runoff draining off site;
- Where hedgerows and ditch lines are to be crossed, these will be crossed between mature trees where possible to mitigate disturbing the existing tree line. Where it is required to remove a section of hedgerow or ditch line to facilitate the installation of the cable trench, this will be reinstated as per the landowner requirements and local environment;
- Where drains and watercourses are crossed with underground cables, the release of sediment over baseline conditions will be prevented by the use of silt traps, check dams and/or bunds. These will be put in place in advance of construction works;
- Weather conditions will be considered when planning construction activities to minimise risk of run off from site;
- Where possible, stream crossings will be undertaken in dry conditions when water levels in the streams are low.
- 20 metre exclusion zones will be provided with barriers (sediment fences) between any excavated material and any surface water features to prevent sediment washing into the receiving water environment;
- If dewatering is required as part of the proposed works e.g. in trenches for underground cabling or in wet areas, water must be treated prior to discharge. The Contractor shall employ best practice settling systems to ensure maximum removal of suspended solids prior to discharge of any surface water or groundwater from excavations to receiving waterbodies. This may include treatment via settlement tanks. There will be no direct pumping of water from the works to watercourses at any time.
- The Contractor shall ensure that sediment/silt-traps, and check dams are regularly maintained during the construction phase.
- If very wet ground must be accessed during the construction process bog mats will be used to enable access to these areas by machinery. Temporary roads/access tracks will not be constructed;
- The Contractor shall ensure that all personnel working on site are trained in pollution incident control response. A regular review of weather forecasts of heavy rainfall is required and the Contractor is required to prepare a contingency plan for before and after such events;
- The Contractor will carry out visual examinations of watercourses receiving flows from the proposed works during the construction phase to ensure that sediment is not above baseline conditions.
- Excavations will be left open for minimal periods to avoid acting as a conduit for surface water flows.
- No storage of hydrocarbons or any polluting chemicals will occur within 50m of watercourses or surface water features. Any diesel or fuel oils stored on site will be bunded to 110% of the capacity of the storage tank. Re-fuelling of plant will not occur within 50m of any watercourse or surface water feature and only in bunded refuelling areas. Design and installation of fuel tanks to be in accordance with best practice guidelines BPGCS005, oil storage guidelines. Drip trays and spill kits will be kept available on site.
- Only emergency breakdown maintenance will be carried out on site. Emergency procedures and spillage kits will be available and construction staff will be familiar with emergency procedures.
- Appropriate containment facilities will be provided to ensure that any spills from the vehicle are contained and removed off site. Adequate stocks of absorbent materials, such as sand or commercially available spill kits shall be available;

- Concrete or potential concrete contaminated water run-off cannot enter watercourses. Any pouring of concrete will only be carried out in dry weather. Washout of concrete trucks shall be strictly confined to designated and controlled impermeable wash-out areas remote from watercourses, drainage channels and other surface water features;
- A designated trained operator experienced in working with concrete will be employed during the concrete pouring phase;
- Concrete waste water can be pumped into a skip to settle out; settled solids will need to be appropriately disposed of off-site;
- Wash-down water from exposed concrete surfaces, will be trapped to allow sediment to settle out and reach neutral pH before clarified water is released to the drain system or allowed to percolate into the ground;
- Where dust suppression is considered to be required by the Contractor, such requirements and methodology shall be subject to the agreement with the Ecological Clerk of Works;
- Entry by plant equipment, machinery, vehicles and construction personnel into watercourses or wet drainage ditches shall not be permitted. All routes used for construction traffic shall be protected against migration of soil or waste water into watercourses;
- Cabins, containers, workshops, plant, materials storage and storage tanks shall not be located near the surface water channels.

6.0 Invasive Species Best Practice Measures

Invasive species can be introduced into a location by contaminated plant, machinery and equipment which were previously used in locations that contained invasive species. Good site organisation and hygiene management shall be maintained always on site, and best practice measures will be implemented, as follows:

- The contractor will prepare an Invasive Species Action Plan to be implemented during construction, and all personnel will be made aware of the requirements contained within;
- Plant and machinery will be inspected upon arrival and departure from site and cleaned/washed as necessary to prevent the spread of invasive aquatic / riparian species such as Japanese knotweed *Fallopia japonica* and Himalayan Balsam *Impatiens glandulifera*. A sign off sheet will be maintained by the contractor to confirm the implementation of measures;
- Site hygiene signage will be erected in relation to the management of non-native invasive material.

Please refer to the accompanying Natura Impact Statement, CEMP and Landscaping Plan for further details.

7.0 Waste Management

All waste products (general waste, plastic, timber, etc.) arising during the construction phase will be managed and disposed of in accordance with the provisions of the Waste Management Act 1996 and associated amendments and regulations, and a Waste Management Plan (WMP) will be prepared and agreed by the contractor prior to the commencement of construction. An Outline Waste Management Plan has been prepared to form the basis of the WMP.

8.0 Programme

Estimates for the duration of the construction works are included in the table below. Please note that some of the elements are likely to happen concurrently, therefore the overall start-to-finish duration is estimated to be 8 months.

Table 3: Estimated Construction Duration (Activities Run Concurrently)	
Development Element	Estimated Construction Duration
Construct Amendment 110kV Underground Cable	0.5 Month
Construct Full 110kV Underground Cable	8 Months
Total	8 Months