APPENDICES TO CHAPTER 11

APPENDIX 11

Existing site photography

Plates 11.0 to 11.26

Plate 11.0 View looking into the tilled field at the north-west of the site from the Navan Road

Plate 11.1 View looking east towards the site from the Navan Road
Old Fairgreen to the right of view

Plate 11.2 View looking north-east into the site from an area of open space north of Old Fair Green

Plate 11.3 View looking south east towards the site from Willow Park

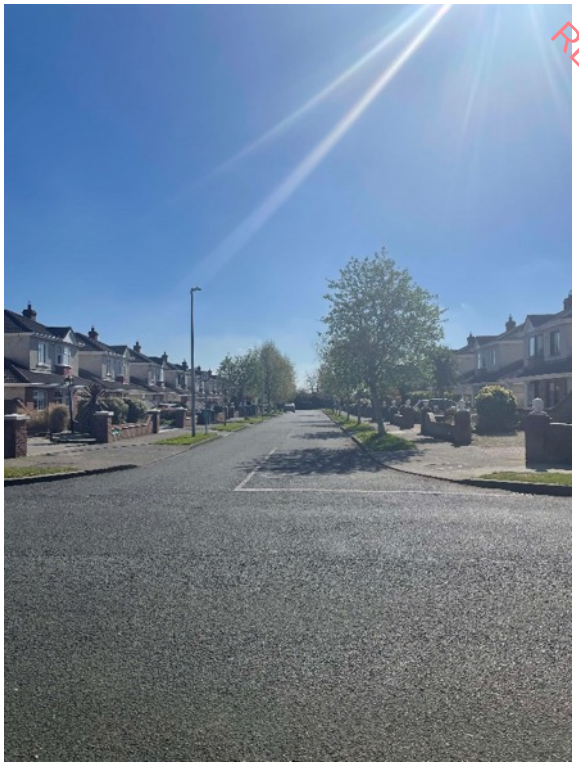

Plate 11.4 View looking east towards the site from Elton Drive

Plate 11.5 View looking south towards The Meadows, Castlefarm, from the southern boundary of the site on Station Road (L2228)

Plate 11.6 View looking west along Station Road from the southern boundary of the site

Plate 11.7 View looking west along Station Road

Plate 11.8 View west along the southern boundary of the site

Plate 11.9 View looking north into the site from the south-eastern corner of the site on Station Road

Plate 11.10 View looking north-west into the site from the south-eastern corner of the site on Station Road

Plate 11.11 View looking north into the site from the south-eastern corner of the site on Station Road

Plate 11.12 View looking north-west towards the site from a point further east on Station Road

Plate 11.13 View looking north into the site from the entrance road to the Dunboyne Railway Station, on Station Road

Plate 11.14 View looking south-east from the railway station entrance road towards The Meadows, Castlefarm

Plate 11.15 View looking south from the entrance road to the railway station towards the entrance to Dunboyne Herbs and The Meadows, Castlefarm

Plate 11.16 View towards wider tree canopy on Dunboyne Herbs lands from south of the railway car park

Plate 11.17 View east from railway access road towards the site

Plate 11.18 View east towards the site from the railway station car park

Plate 11.19 View north-east towards the site from the railway station car park

Plate 11.20 View south-east towards the site from the railway station car park

Plate 11.21 View north-west towards the site from the railway station car park

Plate 11.22 View of the Monterey Pine (taller tree) and Corsican Pine beneath

Plate 11.23 View looking east into the central portion of the site

Plate 11.24 View looking north into the north-central portion of the site

Plate 11.25 View of existing green palisade fencing to the perimeter of the site

Plate 11.26 View north towards the site from the railway station car park

APPENDICES TO CHAPTER 12

Appendix 12.1 RMP Sites Within the Study Area

SMR NO.	ME050-031
RMP STATUS	Yes
TOWNLAND	Dunboyne
PARISH	Dunboyne
BARONY	Dunboyne
I.T.M.	702101, 742238
CLASSIFICATION	Ring ditch
DIST. FROM DEVELOPMENT	Within the site
DESCRIPTION	Located on a level landscape. The cropmark of a small ring-ditch (diam. c. 8m) is visible on Bing images (c. 2013). It is also visible on Google Earth (12/07/2013; 24/06/2018) and is located just N of a modern ENE-WSW field bank with drains on either side that is now removed but the drains are visible as cropmark features. The ring-ditch was first noted by Donal Lucy and the enclosure (ME050-032001-) and ring-ditch (ME050-032002-) are c. 250m to the S. A gradiometer survey (17R0075) by Earthsound confirmed the presence of this feature and identified some other anomalies, which were archaeologically tested (17E0399) by D. McIlreavy (excavations.ie 2017:431). This feature was not tested as it will be preserved in situ within the development (McIlreavy 2017). See the attached enhanced view from Bing images (2013).
REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME050-032001
RMP STATUS	Yes
TOWNLAND	Dunboyne
PARISH	Dunboyne
BARONY	Dunboyne
I.T.M.	702197, 741986
CLASSIFICATION	Enclosure
DIST. FROM DEVELOPMENT	Within the site
DESCRIPTION	Located on a level landscape. The cropmark of a D-shaped enclosure (dims c. 75m NW-SE; c. 40m NE-SW) defined by single fosse features and with straight sides at NW and SE is visible on Bing images (2013). It was first noted by Donal Lucy and is divided across the middle by another ditch feature while there may be an entrance gap on the SW side of the NW paddock. A small ring-ditch (diam. c. 10m) is in the SE enclosure, and it is cut slightly by the cropmark of a modern NE-SW drain. The ring-ditch (ME050-031----) is c. 250m to the N. A gradiometer survey (17R0075) by Earthsound confirmed the presence of this feature and identified some other anomalies, but the monument will be preserved in situ.
REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME050-032002
RMP STATUS	Yes
TOWNLAND	Dunboyne
PARISH	Dunboyne

BARONY	Dunboyne
I.T.M.	702217, 741961
CLASSIFICATION	Ring ditch
DIST. FROM DEVELOPMENT	Within the site
DESCRIPTION	Located on a level landscape. A small ring-ditch (diam. c. 10m) is visible on Bing images (2013) within a D-shaped enclosure (ME050-032001-). it is cut slightly by the cropmark of a modern NE-SW drain and It was first noted by Donal Lucy. The ring-ditch (ME050-031----) is c. 250m to the N. A gradiometer survey (17R0075) by Earthsould confirmed the presence of this feature and identified some other anomalies, all of which were archaeologically tested (17E0399) by D. McIlreavy (excavations.ie 2017, 431). The defining fosse (Wth of top 1.8-2.8m; D 0.65-0.85m) of this enclosure is round bottomed with a loose brown sandy clay fill. It produced no artefacts where sampled, but two sherds of thirteenth century pottery were recovered in the topsoil. The enclosure will be preserved in situ.
REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME050-045
RMP STATUS	Yes
TOWNLAND	Bracetown
PARISH	Dunboyne
BARONY	Dunboyne
I.T.M.	702423, 742565
CLASSIFICATION	*Fulacht fia*
DIST. FROM DEVELOPMENT	c. 117m east
DESCRIPTION	Situated in the valley of the NNW-SSE meandering River Tolka with a W-E section of the stream immediately to the S. Archaeological centre-line testing (04E0489) by R. O'Hara of Testing Area 5, Contract 1, prior to the construction of the M3 motorway identified a burnt stone spread (excavations.ie: 2004:1191) that was fully excavated (E003028) by L. Clarke as Bracetown 1 in August 2005. It consisted of a crescent-shaped mound (dims 15.25m NW-SE; 8m NE-SW; max. D 0.34m) of heat-shattered stones, flecks of charcoal and charcoal-stained clay with some smaller detached portions. Some burnt bone and animal bone was recovered from the mound as well as a piece of polished bone and a chert blade. Most of the identified animal bone is from cattle but one dog bone was present. The mound was interleaved with alluvial deposits that sealed a smaller burnt mound (dims 1.5m x 1m). Beneath the large mound were two shallow depressions and a probable trough (dims 1.16m x 0.78m; D 0.29m), all filled with broken and burnt stone. A sample from the lower mound produced a C14 date of 2135-1908 cal. BC while a sample from the large mound yielded a determination of 1387-1129 cal. BC. (Clarke 2008)
REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME051-019002
RMP STATUS	Yes
TOWNLAND	Loughsallagh
PARISH	Dunboyne
BARONY	Dunboyne

I.T.M.	702673, 741939
CLASSIFICATION	Ring ditch
DIST. FROM DEVELOPMENT	c. 133m east
DESCRIPTION	Situated on a fairly level landscape with a N-S course of the Tolka River c. 50m to the W. The cropmark of a circular enclosure (int. diam. c. 10m) defined by a wide fosse feature (Wth c. 5m) was recorded by Noel Meehan using a drone-mounted camera on 09/07/2018. It is bisected by a N-S field bank and is not visible W of that feature. The ring-ditch (ME051-019001-) is c. 55m to the ENE and enclosure (ME051-019----) is c. 70m to the NE. It is not recorded on any other maps or images.
REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME051-019001
RMP STATUS	Yes
TOWNLAND	Loughsallagh
PARISH	Dunboyne
BARONY	Dunboyne
I.T.M.	702721, 741959
CLASSIFICATION	Ring ditch
DIST. FROM DEVELOPMENT	c. 181m east
DESCRIPTION	Situated on a fairly level landscape. The cropmark of a circular enclosure (int. diam. c. 5-10m) defined by a single fosse feature (Wth c. 2-3m) was recorded by Noel Meehan using a drone-mounted camera on 09/07/2018. It is cut by a NE-SW drain feature (Wth c. 2m) towards its SE edge. The enclosure (ME051-019----) is c. 20m to the N and ring-ditch (ME051-019992-) is c. 55m to the WSW. It is not recorded on any other maps or images.
REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME051-019
RMP STATUS	Yes
TOWNLAND	Loughsallagh
PARISH	Dunboyne
BARONY	Dunboyne
I.T.M.	702719, 741994
CLASSIFICATION	Enclosure
DIST. FROM DEVELOPMENT	c. 187m east
DESCRIPTION	Situated on a fairly level landscape. The cropmark of a circular enclosure (int. diam. c. 15m; ext. diam. c. 20m) defined by a single fosse feature was recorded by Noel Meehan using a drone-mounted camera on 09/07/2018. It is bisected by a NE-SW drain feature (Wth c. 2m) and some pits are visible in the interior. The cropmark of what is probably a fairly modern quarry is c.20m to the NW, and there are other quarry-pits in the vicinity. The ring-ditch (ME051-019001-) is c. 20m to the S and ring-ditch (ME051-019002-) is c. 70m to the SW. The enclosure was also identified by Jean-Charles Caillere on Google Earth (24/06/2018), and it is also visible on Google Earth (11/06/2012; 12/07/2013) but the other features do not appear on any other media.

REFERENCE	www.archaeology.ie/ SMR file

SMR NO.	ME050-047
RMP STATUS	Yes
TOWNLAND	Loughsallagh
PARISH	Dunboyne
BARONY	Dunboyne
I.T.M.	702677, 742144
CLASSIFICATION	Road - road/trackway
DIST. FROM DEVELOPMENT	c. 238m northeast
DESCRIPTION	Situated in the N-S valley of the meandering Tolka River, with the original stream c. 50m to the W. Archaeological centre-line testing (04E0489) by R. O'Hara prior to the construction of the M3 motorway identified a cobbled surface (excavations.ie: 2004:1191) that was further excavated (E003030) by L. Clarke (excavations.ie 2005:AD12) as Loughsallagh 1. The road surface, consisting of cobbles set in a compact grey/brown stoney layer (Wth 10m plus; T 0.3m), extended NNE-SSW beyond the excavation limits at N and S, and its E edge was not exposed. It was accompanied by a drain (Wth of top 2.1m; D 0.48m) filled with grey brown silty clays on its W side. A thin dark brown silty clay layer (max. T 0.22m) separated this surface from an earlier metaled surface (Wth 5.5m; max. T 0.15m) that had a drain (Wth of top 1.9m; D 0.48m) filled with brown/grey silty clay on the W side. Some metal fragments were recovered but none are diagnostic. Although the road is not precisely represented at this point on the 1836 edition of the OS 6-inch map both road surfaces are post-medieval in date and are earlier iterations of the 'old' road from Dublin to Dunshaughlin (R147). (Clarke 2008)
REFERENCE	www.archaeology.ie/ SMR file

Appendix 12.2 Recorded Architectural Sites Within the Study Area

NIAH NO.	14341002

TOWNLAND	Dunboyne
PARISH	Dunboyne
BARONY	Dunboyne
CLASSIFICATION	Dunboyne Bridge
DIST. FROM DEVELOPMENT	c. 22m southwest
DESCRIPTION	Single-arch railway bridge over tracks, built c.1862, with squared rubble stone walls. Rock-faced limestone voussoirs, string courses and cappings.
REFERENCE	NIAH Survey

NIAH NO.	14341001
TOWNLAND	Dunboyne
PARISH	Dunboyne
BARONY	Dunboyne
CLASSIFICATION	Dunboyne water tower
DIST. FROM DEVELOPMENT	c. 36m southwest
DESCRIPTION	Detached two-stage water tower, built c.1862, surmounted by cast-iron water tank. No longer in use. Rock-faced limestone walls with ashlar limestone cornice and red brick quoins
REFERENCE	NIAH Survey

Appendix 12.3 Legislation Protecting the Archaeological Resource

PROTECTION OF CULTURAL HERITAGE

The cultural heritage in Ireland is safeguarded through national and international policy designed to secure the protection of the cultural heritage resource to the fullest possible extent (Department of Arts, Heritage, Gaeltacht and the Islands 1999, 35). This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention), ratified by Ireland in 1997.

THE ARCHAEOLOGICAL RESOURCE

The National Monuments Act 1930 to 2004 and relevant provisions of the National Cultural Institutions Act 1997 are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. A National Monument is described as 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (National Monuments Act 1930 Section 2).

A number of mechanisms under the National Monuments Act are applied to secure the protection of archaeological monuments. These include the Register of Historic Monuments, the Record of Monuments and Places, and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

OWNERSHIP AND GUARDIANSHIP OF NATIONAL MONUMENTS

The Minister may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with without the written consent of the Minister.

REGISTER OF HISTORIC MONUMENTS

Section 5 of the 1987 Act requires the Minister to establish and maintain a Register of Historic Monuments. Historic monuments and archaeological areas present on the register are afforded statutory protection under the 1987 Act. Any interference with sites recorded on the register is illegal without the permission of the Minister. Two months notice in writing is required prior to any work being undertaken on or in the vicinity of a registered monument. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the Record of Monuments and Places.

PRESERVATION ORDERS AND TEMPORARY PRESERVATION ORDERS

Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

RECORD OF MONUMENTS AND PLACES

Section 12(1) of the 1994 Act requires the Minister for Arts, Heritage, Gaeltacht and the Islands (now the Minister for the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs) to establish and maintain a record of monuments and places where the Minister believes that such monuments exist. The record comprises a list of monuments and relevant places and a map/s showing each monument and relevant place in respect of each county in the state. All sites recorded on the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994. All recorded monuments on the proposed development site are represented on the accompanying maps.

Section 12(3) of the 1994 Act provides that 'where the owner or occupier (other than the Minister for Arts, Heritage, Gaeltacht and the Islands) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister of Arts, Heritage, Gaeltacht and the Islands to carry out work and shall not, except in the case of urgent necessity and with the consent of the Minister, commence the work until two months after the giving of notice'.

Under the National Monuments (Amendment) Act 2004, anyone who demolishes or in any way interferes with a recorded site is liable to a fine not exceeding €3,000 or imprisonment for up to 6 months. On summary conviction and on conviction of indictment, a fine not exceeding €10,000 or imprisonment for up to 5 years is the penalty. In addition, they are liable for costs for the repair of the damage caused.

In addition to this, under the European Communities (Environmental Impact Assessment) Regulations 1989, Environmental Impact Statements (EIS) are required for various classes and sizes of development project to assess the impact the proposed development will have on the existing environment, which includes the cultural, archaeological and built heritage resources. These document's recommendations are typically incorporated into the conditions under which the proposed development must proceed, and thus offer an additional layer of protection for monuments which have not been listed on the RMP.

THE PLANNING AND DEVELOPMENT ACT 2000
Under planning legislation, each local authority is obliged to draw up a Development Plan setting out their aims and policies with regard to the growth of the area over a five-year period. They cover a range of issues including archaeology and built heritage, setting out their policies and objectives with regard to the protection and enhancement of both. These policies can vary from county to county. The Planning and Development Act 2000 recognises that proper planning and sustainable development includes the protection of the archaeological heritage. Conditions relating to archaeology may be attached to individual planning permissions.

Meath County Development Plan 2021-2027

HER POL 1
To protect sites, monuments, places, areas or objects of the following categories:

Sites and monuments included in the Sites and Monuments Record as maintained by the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht;

Monuments and places included in the Record of Monuments and Places as established under the National Monuments Acts;

Historic monuments and archaeological areas included in the Register of Historic Monuments as established under the National Monuments Acts;

National monuments subject to Preservation Orders under the National Monuments Acts and national monuments which are in the ownership or guardianship of the Minister for Culture, Heritage and the Gaeltacht or a local authority;

Archaeological objects within the meaning of the National Monuments Acts; and Wrecks protected under the National Monuments Acts or otherwise included in the Shipwreck Inventory maintained by the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht.

HER POL 2
To protect all sites and features of archaeological interest discovered subsequent to the publication of the Record of Monument and Places, in situ (or at a minimum preservation by record) having

regard to the advice and recommendations of the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht and The Framework and Principles for the Protection of the Archaeological Heritage (1999).

HER POL 3
To require, as part of the development management process, archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, for development in the vicinity of monuments or in areas of archaeological potential. Where there are upstanding remains, a visual impact assessment may be required.

HER POL 4
To require, as part of the development management process, archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, where development proposals involve ground clearance of more than half a hectare or for linear developments over one kilometre in length; or developments in proximity to areas with a density of known archaeological monuments and history of discovery as identified by a suitably qualified archaeologist.

HER POL 5
To seek guidance from the National Museum of Ireland where an unrecorded archaeological object is discovered, or the National Monuments Service in the case of an unrecorded archaeological site.

It is the objective of the Council:

HER OBJ 1
To implement in partnership with the County Meath Heritage Forum, relevant stakeholders and the community the County Meath Heritage Plan and any revisions thereof.

HER OBJ 2
To ensure that development in the vicinity of a Recorded Monument or Zone of Archaeological Potential is sited and designed in a sensitive manner with a view to minimal detraction from the monument or its setting.

HER OBJ 3
To protect important archaeological landscapes from inappropriate development.

HER OBJ 4
To encourage the management and maintenance of the County's archaeological heritage, including historic burial grounds 2, in accordance with best conservation practice that considers the impact of climate change.

HER OBJ 5
To promote awareness of, and encourage the provision of access to, the archaeological resources of the county.

HER OBJ 6
To work in partnership with key stakeholders to promote County Meath as a centre for cultural heritage education and learning through activities such as community excavation and field/summer schools

Appendix 12.4 Legislation Protecting The Architectural Resource

The main laws protecting the built heritage are the Architectural Heritage (National Inventory) and National Monuments (Miscellaneous Provisions) Act 1999 and the Local Government (Planning and Development) Acts 1963–1999, which has now been superseded by the Planning and Development Act, 2000. The Architectural Heritage Act requires the Minister to establish a survey to identify, record and assess the architectural heritage of the country. The background to this legislation derives from Article 2 of the 1985 Convention for the Protection of Architectural Heritage (Granada Convention). This states that:

For the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member state will undertake to maintain inventories of that architectural heritage.

The National Inventory of Architectural Heritage (NIAH) was established in 1990 to fulfil Ireland's obligation under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architecture of Ireland (NIAH Handbook 2005:2). As inclusion in the inventory does not provide statutory protection, the survey information is used in conjunction with the Architectural Heritage Protection Guidelines for Planning Authorities to advise local authorities on compilation of a Record of Protected Structures as required by the Planning and Development Act, 2000.

PROTECTION UNDER THE RECORD OF PROTECTED STRUCTURES AND COUNTY DEVELOPMENT PLAN

Structures of architectural, cultural, social, scientific, historical, technical or archaeological interest can be protected under the Planning and Development Act, 2000, where the conditions relating to the protection of the architectural heritage are set out in Part IV of the act. This act superseded the Local Government (Planning and Development) Act, 1999, and came into force on 1st January 2000.

The act provides for the inclusion of Protected Structures into the planning authorities' development plans and sets out statutory regulations regarding works affecting such structures. Under new legislation, no distinction is made between buildings formerly classified under development plans as List 1 and List 2. Such buildings are now all regarded as 'Protected Structures' and enjoy equal statutory protection. Under the act the entire structure is protected, including a structure's interior, exterior, attendant grounds and also any structures within the attendant grounds.

The act defines a Protected Structure as (a) a structure, or (b) a specified part of a structure which is included in a Record of Protected Structures (RPS), and, where that record so indicates, includes any specified feature which is in the attendant grounds of the structure and which would not otherwise be included in this definition. Protection of the structure, or part thereof, includes conservation, preservation, and improvement compatible with maintaining its character and interest. Part IV of the act deals with architectural heritage, and Section 57 deals specifically with works affecting the character of Protected Structures or proposed Protected Structures and states that no works should materially affect the character of the structure or any element of the structure that contributes to its special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. The act does not provide specific criteria for assigning a special interest to a structure. However, the National Inventory of Architectural Heritage (NIAH) offers guidelines to its field workers as to how to designate a building with a special interest, which are not mutually exclusive. This offers guidance by example rather than by definition:

ARCHAEOLOGICAL

It is to be noted that the NIAH is biased towards post-1700 structures. Structures that have archaeological features may be recorded, providing the archaeological features are incorporated within post-1700 elements. Industrial fabric is considered to have technical significance, and should only be attributed archaeological significance if the structure has pre-1700 features.

ARCHITECTURAL
A structure may be considered of special architectural interest under the following criteria:
Good quality or well executed architectural design
The work of a known and distinguished architect, engineer, designer, craftsman
A structure that makes a positive contribution to a setting, such as a streetscape or rural setting
Modest or vernacular structures may be considered to be of architectural interest, as they are part of the history of the built heritage of Ireland.
Well-designed decorative features, externally and/or internally

HISTORICAL
A structure may be considered of special historical interest under the following criteria:
A significant historical event associated with the structure
An association with a significant historical figure
Has a known interesting and/or unusual change of use, e.g. a former workhouse now in use as a hotel
A memorial to a historical event.

TECHNICAL
A structure may be considered of special technical interest under the following criteria:
Incorporates building materials of particular interest, i.e. the materials or the technology used for construction
It is the work of a known or distinguished engineer
Incorporates innovative engineering design, e.g. bridges, canals or mill weirs
A structure which has an architectural interest may also merit a technical interest due to the structural techniques used in its construction, e.g. a curvilinear glasshouse, early use of concrete, cast-iron prefabrication.
Mechanical fixtures relating to a structure may be considered of technical significance.

CULTURAL
A structure may be considered of special cultural interest under the following criteria:
An association with a known fictitious character or event, e.g. Sandycove Martello Tower, which featured in Ulysses.
Other structure that illustrate the development of society, such as early schoolhouses, swimming baths or printworks.

SCIENTIFIC
A structure may be considered of special scientific interest under the following criteria:
A structure or place which is considered to be an extraordinary or pioneering scientific or technical achievement in the Irish context, e.g. Mizen Head Bridge, Birr Telescope.

SOCIAL
A structure may be considered of special social interest under the following criteria:
A focal point of spiritual, political, national or other cultural sentiment to a group of people, e.g. a place of worship, a meeting point, assembly rooms.
Developed or constructed by a community or organisation, e.g. the construction of the railways or the building of a church through the patronage of the local community
Illustrates a particular lifestyle, philosophy, or social condition of the past, e.g. the hierarchical accommodation in a country house, philanthropic housing, vernacular structures.

ARTISTIC
A structure may be considered of special artistic interest under the following criteria:
Work of a skilled craftsman or artist, e.g. plasterwork, wrought-iron work, carved elements or details, stained glass, stations of the cross.
Well-designed mass-produced structures or elements may also be considered of artistic interest.

(From the NIAH Handbook 2003 & 2005 pages 15–20)

The Local Authority has the power to order conservation and restoration works to be undertaken by the owner of the protected structure if it considers the building to need repair. Similarly, an owner or developer must make a written request to the Local Authority to carry out any works on a protected structure and its environs, which will be reviewed within three months of application. Failure to do so may result in prosecution.

Meath County Development Plan 2021-2027

HER POL 14
To protect and conserve the architectural heritage of the County and seek to prevent the demolition or inappropriate alteration of Protected Structures.

HER POL 15
To encourage the conservation of Protected Structures, and where appropriate, the adaptive re-use of existing buildings and sites in a manner compatible with their character and significance. In certain cases, land use zoning restrictions may be relaxed in order to secure the conservation of the protected structure.

HER POL 16
To protect the setting of Protected Structures and to refuse permission for development within the curtilage or adjacent to a protected structure which would adversely impact on the character and special interest of the structure, where appropriate.

HER POL 17
To require that all planning applications relating to Protected Structures contain the appropriate accompanying documentation in accordance with the Architectural Heritage Protection Guidelines for Planning Authorities (2011) or any variation thereof, to enable the proper assessment of the proposed works.

HER POL 18
To require that in the event of permission being granted for development within the curtilage of a protected structure, any works necessary for the survival of the structure and its re-use should be prioritised in the first phase of development.

It is the objective of the Council:

HER OBJ 15
To review and update the Record of Protected Structures on an on-going basis and to make additions and deletions as appropriate.

HER OBJ 16
To identify and retain good examples of historic street furniture, e.g. cast-iron post boxes, water pumps, light fixtures and signage, as appropriate.

HER OBJ 17
To promote best conservation practice and encourage the use of appropriately qualified professional advisors, tradesmen and craftsmen, with recognised conservation expertise, for works to protected structures or historic buildings in an Architectural Conservation Area.

HER OBJ 18
To provide detailed guidance notes and continue to develop the Council's advisory/educational role with regard to heritage matters and to promote awareness, understanding and appreciation of the architectural heritage of the County.

HER OBJ 19
To commission a study over the lifetime of the Plan to assess the significance of the Mass Rocks and Holy Wells throughout County Meath.

Appendix 12.5 Impact Assessment and the Cultural Heritage Resource

POTENTIAL IMPACTS ON ARCHAEOLOGICAL AND HISTORICAL REMAINS

Impacts are defined as 'the degree of change in an environment resulting from a development' (Environmental Protection Agency 2022). They are described as profound, significant or slight impacts on archaeological remains. They may be negative, positive or neutral, direct, indirect or cumulative, temporary or permanent.

Impacts can be identified from detailed information about a project, the nature of the area affected and the range of archaeological and historical resources potentially affected. Development can affect the archaeological and historical resource of a given landscape in a number of ways.

- Permanent and temporary land-take, associated structures, landscape mounding, and their construction may result in damage to or loss of archaeological remains and deposits, or physical loss to the setting of historic monuments and to the physical coherence of the landscape.

- Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping and the passage of heavy machinery; disturbance by vehicles working in unsuitable conditions; or burial of sites, limiting accessibility for future archaeological investigation.

- Hydrological changes in groundwater or surface water levels can result from construction activities such as de-watering and spoil disposal, or longer-term changes in drainage patterns. These may desiccate archaeological remains and associated deposits.

- Visual impacts on the historic landscape sometimes arise from construction traffic and facilities, built earthworks and structures, landscape mounding and planting, noise, fences and associated works. These features can impinge directly on historic monuments and historic landscape elements as well as their visual amenity value.

- Landscape measures such as tree planting can damage sub-surface archaeological features, due to topsoil stripping and through the root action of trees and shrubs as they grow.

- Ground consolidation by construction activities or the weight of permanent embankments can cause damage to buried archaeological remains, especially in colluviums or peat deposits.

- Disruption due to construction also offers in general the potential for adversely affecting archaeological remains. This can include machinery, site offices, and service trenches.

Although not widely appreciated, positive impacts can accrue from developments. These can include positive resource management policies, improved maintenance and access to archaeological monuments, and the increased level of knowledge of a site or historic landscape as a result of archaeological assessment and fieldwork.

PREDICTED IMPACTS

The severity of a given level of land-take or visual intrusion varies with the type of monument, site or landscape features and its existing environment. Severity of impact can be judged taking the following into account:

- The proportion of the feature affected and how far physical characteristics fundamental to the understanding of the feature would be lost;

- Consideration of the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value of the feature affected;

- Assessment of the levels of noise, visual and hydrological impacts, either in general or site-specific terms, as may be provided by other specialists.

Appendix 12.6 Mitigation Measures And The Cultural Heritage Resource

POTENTIAL MITIGATION STRATEGIES FOR CULTURAL HERITAGE REMAINS

Mitigation is defined as features of the design or other measures of the proposed development that can be adopted to avoid, prevent, reduce or offset negative effects.

The best opportunities for avoiding damage to archaeological remains or intrusion on their setting and amenity arise when the site options for the development are being considered. Damage to the archaeological resource immediately adjacent to developments may be prevented by the selection of appropriate construction methods. Reducing adverse effects can be achieved by good design, for example by screening historic buildings or upstanding archaeological monuments or by burying archaeological sites undisturbed rather than destroying them. Offsetting adverse effects is probably best illustrated by the full investigation and recording of archaeological sites that cannot be preserved in situ.

DEFINITION OF MITIGATION STRATEGIES

ARCHAEOLOGICAL RESOURCE

The ideal mitigation for all archaeological sites is preservation in situ. This is not always a practical solution, however. Therefore, a series of recommendations are offered to provide ameliorative measures where avoidance and preservation in situ are not possible.

Archaeological Test Trenching can be defined as 'a limited programme of intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate' (CIfA 2020a).

Full Archaeological Excavation can be defined as 'a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design' (CIfA 2020b).

Archaeological Monitoring can be defined as 'a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive (CIfA 2020c).

Underwater Archaeological Assessment consists of a programme of works carried out by a specialist underwater archaeologist, which can involve wade surveys, metal detection surveys and the excavation of test pits within the sea or riverbed. These assessments are able to access and assess the potential of an underwater environment to a much higher degree than terrestrial based assessments.

ARCHITECTURAL RESOURCE

The architectural resource is generally subject to a greater degree of change than archaeological sites, as structures may survive for many years but their usage may change continually. This can be reflected in the fabric of the building, with the addition and removal of doors, windows and extensions. Due to their often more visible presence within the landscape than archaeological sites, the removal of such structures can sometimes leave a discernable 'gap' with the cultural identity of a population. However, a number of mitigation measures are available to ensure a record is made of any structure that is deemed to be of special interest, which may be removed or altered as part of a proposed development.

Conservation Assessment consists of a detailed study of the history of a building and can include the surveying of elevations to define the exact condition of the structure. These assessments are carried out by Conservation Architects and would commonly be carried out in association with proposed alterations or renovations on a Recorded Structure.

Building Survey may involve making an accurate record of elevations (internal and external), internal floor plans and external sections. This is carried out using an EDM (Electronic Distance Measurer) and GPS technology to create scaled drawings that provide a full record of the appearance of a building at the time of the survey.

Historic Building Assessment is generally specific to one building, which may have historic significance, but is not a Protected Structure or listed within the NIAH. A full historical background for the structure is researched and the site is visited to assess the standing remains and make a record of any architectural features of special interest. These assessments can also be carried out in conjunction with a building survey.

Written and Photographic record provides a basic record of features such as stone walls, which may have a small amount of cultural heritage importance and are recorded for prosperity. Dimensions of the feature are recorded with a written description and photographs as well as some cartographic reference, which may help to date a feature

APPENDICES TO CHAPTER 14

Enviroguide
a DNV company

Resource Waste Management Plan (RWMP)

PRESENTED TO

John Connaughton Ltd.
Large-scale Residential Development at Lands at Station Road and Place Line, Dunboyne, Co. Meath

DATE

August 2024

Document Control Sheet

Client	John Connaughton Ltd.
Project Title	Lands at Station Road and Place Line, Dunboyne, Co. Meath
Document Title	Resource Waste Management Plan (RWMP)

Rev.	*Status*	*Author(s)*	*Reviewed by*	*Approved by*	*Issue Date*
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1 INTRODUCTION

Enviroguide was retained by John Connaughton Ltd (hereafter referred to as the Client) to prepare this Resource and Waste Management Plan (RWMP) for the construction works of the proposed Large-scale Residential Development (hereafter referred to as the Proposed Development) located on lands at Station Road and Place Line, Dunboyne, Co. Meath (hereinafter referred to as the site).

1.1 Scope and Purpose of this RWMP

The purpose of this RWMP is to provide the information necessary to ensure that the management of construction waste arising from the construction works at the site is undertaken in accordance with all statutory requirements and current industry standards.

This RWMP will ensure minimum waste is generated and maximum recycling, re-use, and recovery of waste with diversion from landfill, wherever possible. It will provide guidance on the appropriate collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil and/or water).

This RWMP forms part of the Construction and Environmental Management Plan (CEMP) which has been developed to define the approach to environmental management during implementation and roll-out of the construction phase of the project.

It is important to note that this RWMP relates to the construction element of the construction stage.

As detailed in this document, the exact materials and quantities construction waste that will be generated from the proposed works will be audited throughout the project roll-out phase to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible.

1.2 'Live document'

This RWMP is considered a 'live' document and as such will be reviewed:

- On appointment of the Main Construction Contractor;
- On appointment of the Waste Contractor;
- In the event of a change of Contractor;
- Following Meath County Council inspections or comments;
- In the case that any major design changes are made;
- In the case that there are any changes in waste management practices/ legislation.

This document forms the basis of the RWMP, which the main contractor will be required to update and implement prior to commencement of works on site.

The exact materials and quantities of construction waste that will be generated from the proposed works will be audited throughout the project roll-out phase to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible.

All documentation required by this RWMP such as Waste Collection Permits, Certificates of Registration (Cores), Waste Facility Permits and Waste Licences, in addition to waste transfer documents and landfill gate receipts will be compiled in the annex of documents to accompany this RWMP. A register of documents is provided in Section 1.3.

1.3 Register of Documents

A live register of documents will be maintained both digitally and in hard copy on site as part of this waste management plan. The content of this register is outlined below. It will be the responsibility of the construction site management to ensure that the register of documents is updated as appropriate. The construction site management's contact details will be submitted to Meath County Council (MCC) prior to the commencement of construction works on-site.

The following documents will be maintained in the live register of documents:

A. Register of Legislation, Policy, and Regulations
B. Waste Management Log Sheet – (Digital Log to be Maintained On-Site)

2 Construction and Demolition Waste Policy and Legislation in Ireland

A register of the current list of Construction and Demolition (C&D) waste policy, legislation and regulations are provided in Appendix A and discussed below.

2.1 National Policy

The Irish Government's policy document of 1998, '*Waste Management: Changing our Ways'*, represented Ireland's first steps towards identifying objectives for the prevention, minimisation, reuse, recycling, recovery, and disposal of waste, including C&D waste.

The Irish Construction Industry responded to the '*Waste Management: Changing Our Ways'* report by setting up a waste sector task force and released a report entitled '*Recycling of Construction and Demolition Waste'*. The report dealt with the development and implementation of a voluntary construction industry programme to meet the Government's objectives for the recovery of C&D waste.

The National Construction and Demolition Waste Council (NCDWC) was launched in June 2002, and subsequently produced the '*Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects*' in July 2006 in conjunction with the then Department of the Environment, Heritage and Local Government (DoEHLG). The guidelines outlined the issues that needed to be addressed at the pre-planning stage of a development all the way through to its completion. The Best Practice Guidelines also identified development thresholds above which a C&D Waste Management Plan must be prepared. The Best Practice Guidelines noted that arrangements need to be established in a manner which ensures that there is a contractual obligation on the Contractor(s) to prepare a Waste Management Plan in accordance with the above considerations at a minimum.

These Best Practice Guidelines have been followed in the preparation of this document which includes the following elements:

- Predicted C&D wastes and procedures to prevent, minimise, recycle and reuse wastes;
- Waste disposal/recycling of C&D wastes at the site;
- Provision of training for construction site management and site crew;
- Details of proposed record keeping system;
- Details of waste audit procedures and plan; and
- Details of consultation with relevant bodies (i.e., waste recycling companies).

Section 3 of the Best Practice Guidelines identifies thresholds above which there is a requirement for the preparation of a C&D Waste Management Plan for developments. This development requires a RWMP under the following criterion:

- Civil Engineering projects producing in excess of 500m^3 of waste, excluding waste materials used for development works on the site.

In 2012, the then Department of the Environment, Community and Local Government (DoECLG) (previously DoEHLG), published '*A Resource Opportunity – Waste Management Policy in Ireland*' which supported the prioritisation of the waste hierarchy and identified specific producer responsibilities for construction and demolition projects (over certain thresholds) as a key area for exploration. In 2015, the EPA's '*Design Out Waste*' report noted that the preparation of a Waste Management Plan within the early design and feasibility phases provides a framework to carry out design reviews, and should be used as an implementation, benchmarking, monitoring and reporting tool throughout the overall construction process. Similar to the Best Practice Guidelines (DoEHLG, 2006), Design Out Waste Guidelines recommends that a Waste Management Plan should address the following aspects of the Proposed Development:

- Project description;
- Waste forecasting: Analysis of the waste arising / materials surpluses;
- Specific waste management objectives for the project;
- Proposed strategies and associated costs: Methods proposed for prevention, reuse and recycling of wastes;
- Materials logistics;
- Individual responsibilities;
- Monitoring procedures: Auditing and record keeping; and
- Proposals for education of workforce and plan dissemination programme.

In 2021, following a process of public consultation, the Environmental Protection Agency (EPA) produced '*Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects*', which supersedes the DoEHLG Best Practice Guidelines 2006. The EPA's Best Practice Guidelines (2021) set out a practical and informed common approach to preparing C&D Resource and Waste Management Plans (RWMP) prior to construction and during construction. The Best Practice Guidelines recommend that an RWMP shall be submitted for all C&D projects to inform the planning consent process, and that the level of detail presented in the RWMP should be reflective of the scale and complexity of the project. The guidelines provide thresholds for classifying C&D projects into two different tiers with regards to resource and waste management. These thresholds are based on the principle of proportionality to ensure larger projects with larger potential resource footprints are required to more actively manage resources compared to smaller scale projects.

The Best Practice Guidelines also reflect the current waste legislation and policy including '*A Waste Action Plan for a Circular Economy – Ireland's National Waste Policy 2020-2025*' published in September 2020 by the Department of Communications, Climate Action and Environment (DCCAE) (updated in January 2021). '*A Waste Action Plan for a Circular Economy'* focuses on the prevention of waste disposal by maximising the value of material resources and reducing waste generation and also sets out a number of actions in relation to C&D including updating C&D waste management plan guidelines, putting in place incentives to encourage the use of recycled materials, further develop methods to encourage segregation of waste materials on-site and improve consistency across the waste sector.

Other guidelines followed in the preparation of this report include '*Construction and Demolition Waste Management – a handbook for Contractors and Site Managers*' published by FÁS and the Construction Industry Federation in 2002.

These policy and guidance documents are considered to define best practice for C&D projects in Ireland and describe how C&D projects are to be undertaken such that environmental impacts and risks are minimised and maximum levels of waste recycling are achieved.

2.2 Irish Waste Management Targets

"A Waste Action Plan for a Circular Economy: Ireland's National Waste Policy 2020-2025" sets a target of preparing for reuse, recycling and other material recovery (incl. beneficial backfilling operations using waste as a substitute) of 70% by weight of C&D non-hazardous waste (excluding natural soils & stone).

The "Circular Economy Action Plan: For a cleaner and more competitive Europe" announced the launch of a new "Strategy for a Sustainable Built Environment", which will revise these material recovery targets that were previously set EU legislation for construction and demolition waste. These targets are envisioned to be incorporated into the Irish "National Waste Management Plan for A Circular Economy" which is currently in draft, stemming from the Waste Action Plan for a Circular Economy 2021-2025. Once these new targets are released, they will be complied with.

The State is currently exceeding this target, with a rate of 78% recorded in 2020 (EPA, December 2022. National Waste Statistics Summary Report for 2020). This represents reduction on the C&D recovery rate of 84% achieved by Ireland in 2019. It should be noted,

however, that soil and stone C&D wastes (LoW 17 05 03* and 17 05 04) are excluded from the calculation of the Waste Framework Directive targets.

The EPA (EPA, December 2022. National Waste Statistics Summary Report for 2020) notes that C&D produces the largest volume of waste in the state amounting to 8.2m tonnes of waste in 2020, which represents a decrease from the 8.8m tonnes generated in 2019. The overall composition of C&D waste changed little between 2019 and 2020. At 84% soil and stone waste remained dominant, followed by waste concrete, brick, tile and gypsum (6 per cent) and mixed C&D waste (5 per cent). The proportion of segregated (wood, paper, glass, plastic and metal) C&D waste collected remained small at 3.1 per cent in 2020 increasing from 2.5 per cent in 2019. Final treatment (recycling, re-use as backfilling, re-use as a fuel, disposal) varied greatly between the various material streams generated during C&D operations as noted in Table 2-1. However, approximately 90.3% of all C&D waste material in 2020 was either recovered, re-used or recycled with the most dominant recovery operation being re-use as backfilling (i.e., land reclamation, improvements, or infill works).

Table 2-1: Final Treatment for C&D Waste Material Classes (EPA, December 2022. National Waste Statistics Summary Report for 2020)

C&D Waste Material	Recycled (t)	Energy Recovery(t)	Recovered/ Backfilled (t)	Disposal (t)	Total
Metal	199,392	0	0	0	**199,392**
Segregated Wood, Glass and Plastic waste	41,184	10,426	0	521	**52,131**
Concrete, brick, tile and gypsum waste	215,088	0	283,287	26,230	**524,605**
Waste bituminous mixtures	72,778	0	54,903	0	**127,681**
Mixed Construction and Demolition waste	139,846	68,033	117,169	52,915	**377,963**
Waste soils, stones and Dredging spoil	0	0	6,460,368	486,264	**6,946,632**
% of total treated	8%	1%	84%	7%	**100%**

This RWMP sets out the waste management objectives for the Proposed Development for waste prevention, maximum recycling, reuse and recovery of waste with diversion from landfill, wherever possible. It also sets out the appropriate measures to be taken regarding the collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil and/or water).

2.3 National and Regional Policy

The National Waste Management Plan for a Circular Economy 2024 -2030, sets out the framework for the prevention and management of waste across Ireland. This document is a

statutory document underpinned by national and EU waste legislation, and reflects the targets set out for C&D waste in the Waste Framework Directive (WFD).

The strategic vision of the Plan is to rethink the approach to managing waste, and to move towards a 'circular economy' approach where resources are reused or recycled as much as possible and the overall generation of waste is minimised.

In order to achieve this vision, the Plan has set out a number of specific and measurable performance targets in relation to Construction and Demolition waste:

- Achieve a 2% reduction per annum is proposed for total construction and demolition waste to achieve a cumulative 12% reduction by 2030 (Baseline is 9 Million tonnes)
- Achieve 70% of C&D waste sent for reuse, recycling and other recovery of construction and demolition waste (excluding natural soils and stones and hazardous wastes)

The Plan aims to “prioritise waste prevention and circularity in the construction and demolition sector to reduce the resources that need to be captured as waste”.

The Meath County Development Plan 2021-2027 sets out a number of policies, objectives and actions for County Meath in line with the objectives of the regional waste management plan. Waste objectives with a particular relevance to the proposed development are:

INF POL 61 To facilitate the implementation of National Waste Legislation, National and Regional Waste Management Policy and the circular economy.

INF POL 65 To adopt the provisions of the waste management hierarchy and implement policy in relation to the County’s requirements under the current or any subsequent Waste Management Plan. All prospective developments in the County shall take account of the provisions of the regional waste management plan and adhere to the requirements of the Plan. Account shall also be taken of the proximity principle and the inter-regional movement of waste.

INF POL 66 To ensure that hazardous waste is addressed through an integrated approach of prevention, collection, and recycling and encourage the development of industry-led producer responsibility schemes for key waste streams.

INF POL 70 To encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials in future construction projects.

2.4 Legislative Requirements

The primary piece of legislation governing waste management in Ireland is the Waste Management Act 1996, (as amended) and all associated regulations. Waste management is also regulated by the Environmental Protection Act 1992, (as amended), Litter Pollution Act 1997, (as amended) and the Planning and Development Act 2000, (as amended).

Under the Waste Management Act, 1996, (as amended), the waste producer is responsible for waste from the time it is generated through until its legal recycling, recovery, or disposal (including its method of disposal). This includes transportation by an authorised waste contractor.

2.5 Regulatory Requirements

2.5.1 European Communities (Waste Directive) Regulations 2011

These regulations transpose European Directive 2008/98/EC amending and superseding a number of provisions of the Waste Management Act 1996 (as amended), and associated regulations. Provisions include extended producer responsibility, the implementation of the Waste Management Hierarchy, and measures to promote the preparation of materials for re-use, recycling, and other material recovery (including beneficial backfilling operations using waste as a substitute). The European Communities (Waste Directive) Regulations 2011 also transpose EU waste management targets as set out in Section 1.3 as statutory benchmarks to achieved by Ireland.

2.5.2 Waste Management (Facility Permit & Registration) (Amendment) Regulations 2015 (S.I. No. 198/2015)

Waste receiving facilities must be appropriately permitted or licensed and must be listed in the appendix of the Waste Collection Permit as an authorised destination. Operators of such facilities cannot receive any waste, unless in possession of a Certificate of Registration (COR) or Waste Management Facility Permit granted by the relevant Local Authority under the Waste Management (Facility Permit & Registration) Regulations 2007 as amended or a licence granted by the EPA under the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) and S.I. No. 137/2013 - Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations 2013.

The COR/permit/licence held will specify the type and quantity of waste that the facility is authorised to accept, store, process, recycle, recover and/or dispose of.

2.5.3 Waste Management (Licensing) Regulations 2004 and Waste Management (Licensing) (Amendment) Regulations 2010

These regulations relate to the process for obtaining a waste licence from the EPA for the operation of certain waste recovery or disposal facilities under Part V of the Waste Management Act.

2.5.4 Waste Management (Collection Permit) Regulations 2007 (S.I. No. 820/2007), as amended

The Waste Management (Collection Permit) Regulations 2007, as amended (S.I No. 820 of 2007) regulate the transport of waste in Ireland and provide that in order to transport waste, a waste carrier must hold a valid waste collection permit. Waste contractors engaged by construction contractors must be legally compliant with respect to waste transportation, recycling, recovery, and disposal. This includes the requirement that a contractor handle, transport, and recycle/recover/dispose of waste in a manner that does not give rise to environmental pollution or the risk of environmental pollution.

A valid waste collection permit to transport the specific waste types generated by the project must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO).

2.5.5 Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous

Correct classification of waste is the foundation for ensuring that the collection, transportation, storage and treatment of waste is carried out in a manner that provides protection for the environment and human health and in compliance with legal requirements.

In 1994, the European Waste Catalogue was published by the European Commission. In 2002, the EPA published a document titled the European Waste Catalogue and Hazardous Waste List. This document has been replaced by the EPA 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' which became valid from the 1st July 2018.

The waste classification system applies across the EU and is the basis for all national and international waste reporting obligations such as those associated with waste collection permits, certificates of registration, waste facility permits, EPA Waste and Industrial Emissions licences and the EPA National Waste Database.

The EPA document 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' (EPA, 2018) consolidates the legislation and allows the generators of waste to classify the waste as hazardous or non-hazardous and in the process to assign the correct List of Waste entry.

Under the classification system, different types of wastes are fully defined by a code. The List of Waste (LoW) code (previously referred to as European Waste Code or EWC).

3 DESCRIPTION OF THE PROJECT

3.1 Site Location

The site area is circa 21.9 hectares in total and 15.9 hectares in net developable area respectively, at lands at Station Road and Place Line, Dunboyne, Co. Meath in the townlands of Dunboyne, Clonee, Castle Farm and Loughsallagh.

The principal application site is generally bounded by Station Road (L2228) to the south, Dunboyne Train Station and Iarnród Éireann rail line to the west, a cluster of detached houses to the southeast, greenfield lands to the north and east. The application includes two roundabouts on the R147 (Old Navan Road).

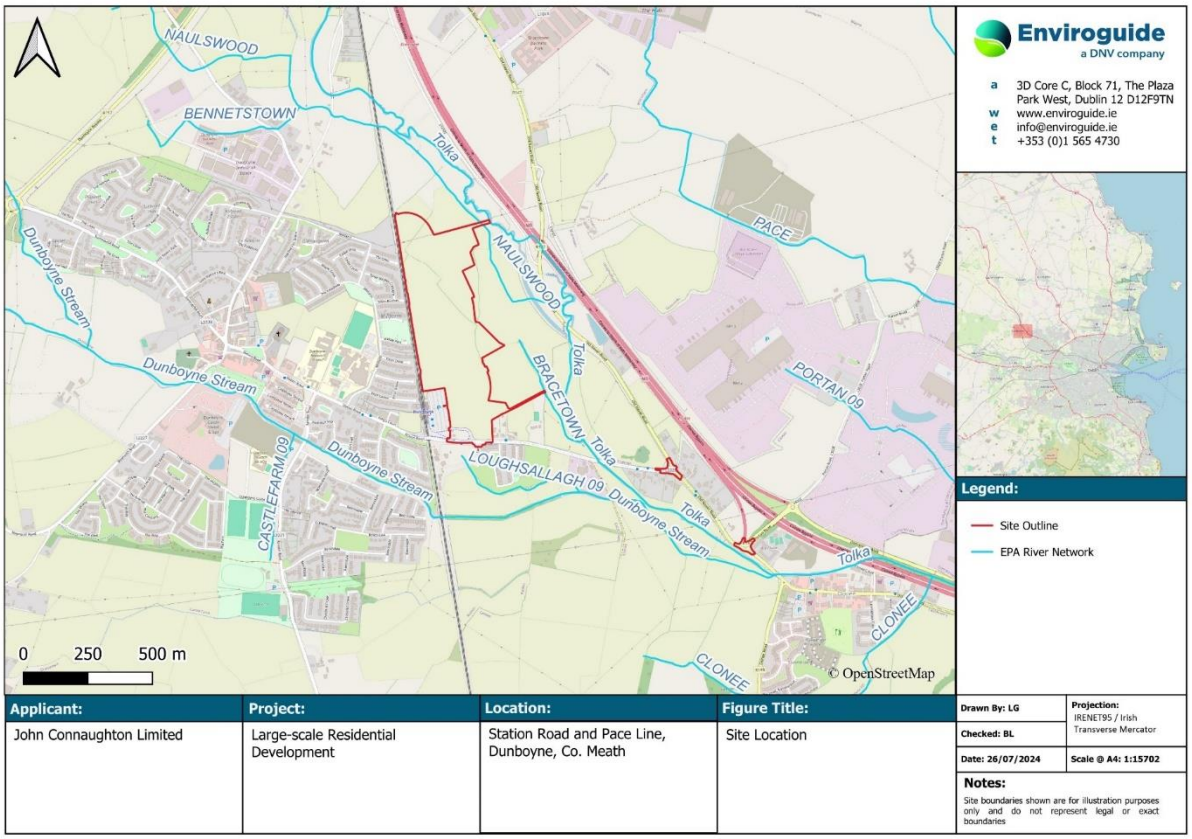

Figure 3-1: Site Location

3.2 Proposed Development Description

The Proposed Development will consist of the following:

- Construction of eight hundred and fifty-three (853) residential units as follows:
  - 398 no. apartment Units in 3 no. 2-6 storey blocks (A-C) consisting of 121 no. 1-bedroom apartments; 258 no. 2-bedroom apartments; and 19 no. 3-bedroom apartments. All apartment units will be provided with private open space areas in the form of balconies/terraces.
  - 112 no. Duplex Units in 6 no. 2-4 storey blocks (D-H & J) and partially in 2-6 storey blocks (A-C) consisting of 60 no. 2-bedroom units, 52 no. 3-bedroom units. All

duplex units will be provided with private open space areas in the form of balconies/terraces;
  - 343 no. 1-3 storey houses consisting of 4 no. 2-bedroom units, 308 no. 3-bedroom units, 31 no. 4-bedroom units. Each house will have an associated rear private garden;
- Residential amenity spaces in Block A (approx. 212 sqm), Block B (approx. 284 sqm) and Block C (approx. 81 sqm);
- The Proposed Development will also include a proposed café (approx. 196sqm) with associated outdoor seating area, medical unit 1 (197 sqm), retail unit 2 (approx. 217 sqm), retail unit 3 (approx. 170 sqm), community room (approx. 52 sqm), 2 no. creche facilities (approx. 394 sq m and approx. 400 sqm);
- Provision of 1192 no. car parking spaces across the development site (inclusive of accessible parking spaces (27 no.) and 1,634 no. bicycle parking spaces for residents and visitors of the scheme provided throughout the development site;
- 13 no. landscaped public open space amenity areas (approx. 23,925 sqm total);
- 7 no. communal open spaces associated with the proposed apartments and duplexes will be provided in the form of landscaped areas located in the vicinity of these units (approx. 6,029 sqm total);
- Section of the Dunboyne Eastern Distributor Road (approx. 865 m long) from the southern site boundary with Station Road (L2228) to the northern boundary of the site. This includes all associated vehicular and pedestrian accesses, carriageways, paths and junctions;
- New vehicular, pedestrian and cycle connections to Dunboyne Train Station and closure of the existing vehicular access from Station Road (L2228);
- Upgrade of Station Road (L2228) – proposed Distributor Road junction;
- Alterations to two (2) roundabouts on the R147 (Old Navan Road):
  - Roundabout at the junction of Station Road (L2228) and Old Navan Road (R147)
  - Roundabout at the entrance to Clonee Village on the R147, at the Ard Cluain apartment scheme and Dunboyne Tennis Club;
- All associated site development works, services provision, infrastructural and drainage works, internal access roads, homezones and cycle and pedestrian infrastructure, provision of ESB substations, bin stores, public lighting, landscaping, and boundary treatment works; and
- Temporary areas allowing for construction: 5m buffer zone along the Distributor Road, compound and spoil storage area.

Previous applications have been made or permitted on lands within the red line boundary of the subject proposal: Reg. ref. 24/60063, Reg. ref. 23849, ABP NA29S.314232 DART+ West, Reg. ref. 212395 (ABP 304842), Reg. ref. RA180561 refers. The subject application does not materially amend any of these existing, permitted, or Proposed Development with only minor works proposed to same.

The proposed site layout plan is presented in Figure 3-2.

Figure 3-2: Site Layout Plan (MCORM, 2024)

4 CONSTRUCTION SCHEDULE AND PLAN

4.1 Programme

This RWMP relates to the construction phase of the Proposed Development at the site. The duration of the construction phase will be phased over 10 years. Note that the programme will be updated in the register of live documents appended to the Construction Environmental Mamanagement Plan (CEMP) as agreed with the Client as the works advance, or if there is a change in the scope for the construction phase of the development.

4.2 Traffic

One of the main construction traffic generating activities will be associated with the removal of surplus and waste material arising from the enabling works for the Proposed Development.

It is anticipated that vehicles travelling towards the subject site will approach via the R147 or M3 motorway and Station Road. It is noted that exact compound location, import/export locations and detailed traffic management and construction routing will be developed by the appointed contractor for the scheme and will be detailed in a construction management plan and Environmental Operating Plan. All exports/imports of material will be to be a suitably licenced facility.

An appropriate control and routing strategy for Heavy Good Vehicles (HGVs) can also be implemented for the duration of site works as part of the Construction Traffic Management Plan. It is not proposed to utilise any roads with weight/height restrictions as part of the routing of HGVs during the construction phase. Separation of vehicular and heavy plant traffic from pedestrians and operatives will be implemented as far as is practical when considering the layout of the site infrastructure and access points. No public personnel, be it pedestrian or vehicular, will be permitted to enter the site. Site access for all personnel and visitors will be controlled and visitors will report to the site security hut, which will be located at the entrance to the designated site compound.

The Contractor shall be responsible for site security at the entrance to the site and thereby control the movement of traffic to and from the site. The contractor shall be responsible to maintain and keep the entrance area clean and tidy and free from construction debris.

Appropriate signage shall be positioned at approach roads to the site area so as to inform the public of the site activities.

The Contractor will ensure that trucks exiting the site do not carry soil or debris from the site onto the local road network. If required, trucks exiting the site will pass through a wheel wash. Where required, all trucks will be covered in accordance with the details outlined in the CEMP (Enviroguide, 2024).

4.3 Construction Compound and Waste Management

All construction support related activities will be contained within the site. This will include office facilities, welfare facilities such as toilets and canteen. Designated areas will be

maintained for materials handling, waste segregation and temporary storage of soils (e.g., of skips or stockpiled material until a viable load is available or if pending waste classification).

Materials handling and plant storage including waste shall be contained within the boundary of the Proposed Development site. The compound area will be segregated from the construction site. Warning signs will illustrate the required Personal Protective Equipment (PPE) and risks associated when entering the construction area of the Proposed Development.

Dedicated, secure waste segregation areas will be provided onsite for the duration of the enabling works as presented in Figure 4-1.

The dedicated waste storage areas within the waste segregation points will house all bins and skips for the storage of segregated construction waste generated. All containers will be marked with clear signage which will identify which waste types are to be placed into each container.

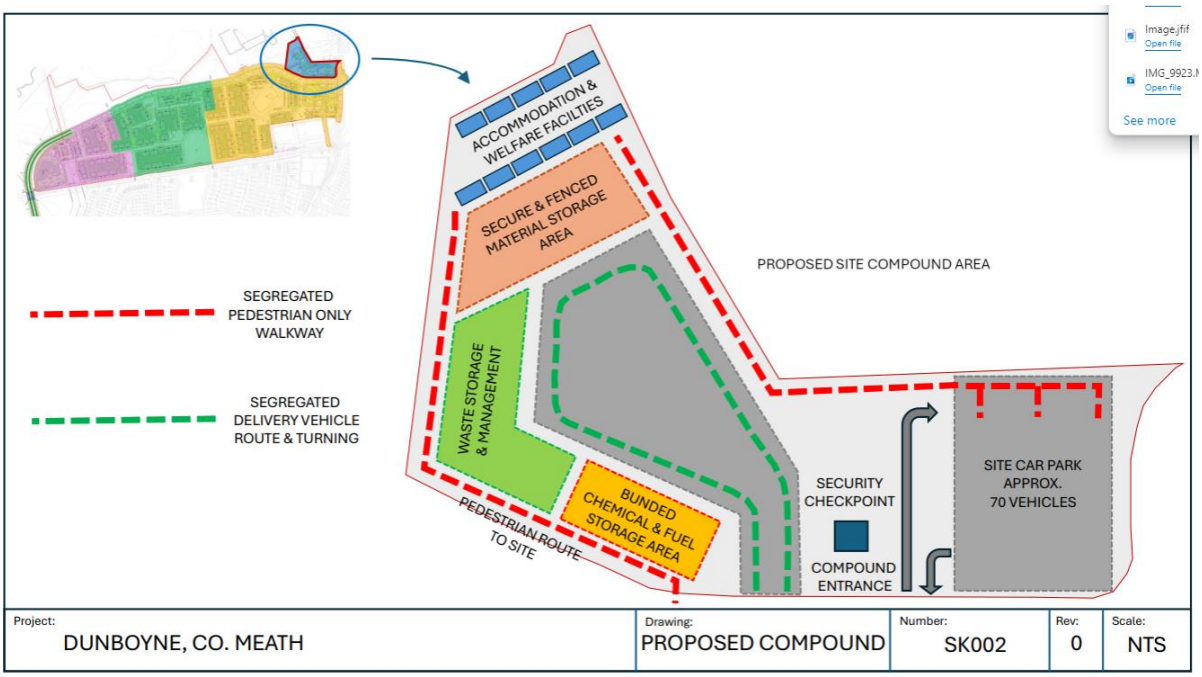

Figure 4-1: Indicative Site Construction Compound

5 WASTE MANAGEMENT TEAM

5.1 Roles and Responsibilities

All parties involved in the construction phase will have responsibility for waste management. Responsibility will vary at different stages of the project lifecycle. It should be noted that one person may be appointed to multiple roles onsite.

Key roles and responsibilities are set out in Table 5-1.

Table 5-1: Construction Stage Waste Management – Key Responsibilities

Responsible Party	Responsibility
Construction Site Management **(Main Contractor)**	Appoint competent and authorized waste management contractor(s)
	Responsibility of waste management during construction
	Overall responsibility for the implementation of the RWMP
	To discharge his/her responsibilities as per the RWMP
	Read, understand, and implement the RWMP.
	Ensure that environmental matters are considered at all times.
	Be aware of any potential environmental risks relating to the site, plant, or materials to be used on the premises and bring these to the notice of the appropriate management
	Ensuring commitment, operational efficiency and accountability during the construction phases of the project in line with the Resource Waste Management Plan (Enviroguide, 2024).
	Selecting a waste team if required, i.e., members of the site crew that will aid them in the organization, operation and recording of the waste management system implemented on site.
	Delegating responsibility to sub-contractors, where necessary, and to coordinate with suppliers, service providers and sub-contractors to prioritize waste prevention and material salvage.
	Responding to any concerns or complaints raised by the public in relation to the construction phase of the project.
	To liaise with the Environmental Officer on community concerns relating to the environment and informed of any complaints relating to the environment;
	Keep the public informed of project progress and any construction activities that may cause inconvenience to the local community.
Environmental Clerk of Works	Ensuring that the requirements of the CEMP are reviewed and environmental system elements (including procedures, method statements and work instructions) are implemented and adhered to with respect to environmental requirements.
	Reviewing the environmental responsibilities of all sub-contractors in scoping their work and during their contract tenure.
	Ensuring that advice, guidance, and instruction on all CEMP matters is provided to all managers, employees, construction contractors and visitors on site
	Advising site management on environmental matters
	Be aware of any potential environmental risks relating to the Contractors and bring these to the notice of the appropriate management;
	Maintenance of all environmental related documentation.
	Training of all site staff in the requirements of the CEMP including environmental controls, waste management and the approved process for communications/complaints handling.
Site Personnel	To co-operate fully with the construction site management and the Environmental Officer in the implementation and development of the CEMP and RWMP at the site.
	To conduct all their activities in a manner consistent with regulatory and good environmental practice.
	Adhere fully to the requirements of the site environmental rules.
Sub-contractors	Comply with RWMP and CEMP where relevant

5.2 Site Contact Details

The contact details for the appointed Main Contractor will be displayed on the site hoarding. These contact details will be kept up to date by the main contractor.

5.3 Waste Management Plan Awareness and Training

All training records will be documented and maintained and will be made available to the Client and all relevant regulatory authorities upon request. All site personnel and sub-contractors will be instructed about the objectives of these plans and informed of the responsibilities which fall upon them as a consequence of its provisions. Where source segregation and selective material reuse techniques apply, each member of staff will be given instructions on how to comply with the RWMP and the best practice guidelines.

5.3.1 Site Personnel Training

A basic awareness briefing will be held for all site crew to outline the RWMP and to detail the segregation of waste materials at source. This may be incorporated with other site training needs such as general site induction, health and safety awareness, asbestos awareness training and manual handling.

This basic briefing will describe the materials to be segregated, the storage methods and the location of the Waste Storage Areas (WSAs). A sub-section on hazardous wastes will be incorporated into the briefing and the particular dangers of each hazardous waste will be explained. All training records will be documented and maintained in the Project HSEQMS records which will be made available to all relevant regulatory authorities upon request.

6 WASTE TYPES

6.1 Details of Potential Non-Hazardous Wastes

6.1.1 Non-Hazardous C&D Waste

During the construction phase, it is anticipated that there will some surplus of building materials, such as timber off-cuts, broken concrete blocks, cladding, plastics, metals, and tiles generated. There may also be excess concrete during construction which will need to be disposed of. Plastic and cardboard waste from packaging and supply of materials will also be generated.

6.1.2 Inert and Non-Hazardous Soil and Stone

The removal of surplus inert / non-hazardous soil and stone for offsite recovery/ disposal will not be removed from the site until properly classified, assigned a correct LoW code and all appropriate tracking and disposal documentation is in place. It is estimated that approximately 52,701m^3 of topsoil and 5,610m^3 is to be removed from the site.

All surplus materials will be removed offsite in accordance with waste management legislation.

6.1.3 Other Non-Hazardous Wastes

Waste will also be generated from construction workers (e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and cartons)), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided on-site during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

6.2 Hazardous Wastes

6.2.1 Asbestos

It is anticipated that there will be no asbestos containing materials (ACMs) generated during the construction phase.

If ACMs are identified on site at a later stage, the client will be notified, and a suitable management plan will be implemented for the safe removal and disposal.

Waste containing asbestos cannot be reused or recovered in any way and this material will require offsite removal and appropriate hazardous waste disposal to control the risks posed from asbestos fibres.

6.2.2 Hazardous Soil and Stone

Taking account of the design requirements for excavation it is anticipated that there will be no hazardous soil and stone waste requiring offsite disposal generated during the enabling works for the Proposed Development.

If at any stage, previously unidentified contaminated soil and stone is discovered on-site, the Main Contractor will immediately notify the Client or their representative so that the following procedures can be implemented:

- Immediate notification to the Client and facilitate any required inspection or visual assessment by the Client or their representative.
- The Environmental Consultant will attend site and complete an environmental site assessment. The scope of any required additional assessment will be agreed in advance with the Main Contractor and the Client.

On completion of the contaminated land assessment, if soil is identified as hazardous it will require offsite removal. The contaminated soil will be managed in accordance with the procedures outlined in this RWMP.

6.2.3 Fuel and Oils

Fuels and oils are classed as hazardous materials. The storage of small quantities of fuel will be required to allow for refuelling of machinery in the site compound and on an impermeable area with appropriate containment in place. All fuels and oils required to be stored at the site will be sealed, bunded and clearly marked. All tanks and drum storage areas will be double skinned and bunded to a capacity greater than the volume of the largest drum or tank.

Provided that these requirements are adhered to, and site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the site. Any used spill kits will be stored in sealed containers awaiting removal by a hazardous waste contractor.

6.2.4 Other Hazardous Substances

Any paints, glues, adhesives, and other known hazardous substances will be stored in designated areas and will be sealed, bunded and clearly marked. They will generally be present in small volumes only, ordered as needed and therefore, associated waste volumes generated will be kept to a minimum.

It is not envisaged that there will be any other hazardous waste generated throughout the construction works however if generated, on-site storage of any hazardous wastes produced (i.e., waste fuels/chemicals) will be kept to a minimum, with compliant removal off-site organised on a regular basis.

It is noted that storage of all hazardous wastes on-site will be undertaken to minimise exposure to on-site personnel and to also minimise potential for environmental impacts. A specialist hazardous waste contactor will be used to remove any hazardous waste arising.

6.3 Main C&D Waste Categories

The main non-hazardous and hazardous waste streams that could be generated by construction activities are shown in Table 6-1. The List of Waste (LoW) code (as effected from 1 June 2015) for each waste stream is also shown.

Table 6-1: Typical Waste Types Generated and LoW Code

Materials / Waste Type	LoW Code
Concrete	17 01 01
Bricks	17 01 02
Tiles and Ceramics	17 01 03
Mixture of concrete, bricks, tiles, and ceramics	17 01 07

Materials / Waste Type	LoW Code
Wood, Glass and Plastic	17 02 01, 17 02 02 and 17 02 03
Metals (including their alloys)	17 04 01, 17 04 02, 17 04 03, 17 04 04, 17 04 05, 17 04 06 and 17 04 07
Non-Hazardous Soil and Stone	17 05 04
Hazardous Soil and Stone	17 05 03*
Gypsum-based construction material	17 08 02
Bituminous mixtures	17 03 02
Paper and cardboard	20 01 01
Non-Hazardous Mixed C&D Wastes	17 09 04
Electrical and electronic components	20 01 35* and 20 01 36
Batteries and accumulators	20 01 33* and 20 01 34
Liquid fuels	13 07 01*, 13 07 02* and 13 07 03*
Chemicals (solvents, pesticides, paints, adhesives, detergents etc.)	20 01 13*, 20 01 19*, 20 01 27*, 20-01 28, 20 01 29* and 20 01 30

6.4 Main C&D Waste Quantities

Table 6-2 shows the composition of C&D waste types produced on construction sites in 2020 based on data from the EPA National Waste Statistics (EPA, 2022. National Waste Statistics Summary Report for 2020).

Table 6-2: Composition of C&D waste collected in Ireland in 2020 (Source: EPA, 2022)

Materials / Waste Type	Tonnage	Per cent of total
Soils, stones & dredging spoil	6,946,632	84.4%
Concrete, brick, tile & gypsum	524,605	6.4%
Mixed C&D waste	377,963	4.6%
Metal	199,392	2.4%
Bituminous mixtures	127,681	1.6%
Segregated wood, glass & plastic	52,131	0.6%
Total	8,228,404	100%

Table 6-3 details the predicted types of construction waste for the Proposed Development based on the information available to date. Details on the estimated tonnages of C&D Waste to be generated during the construction phase of the Proposed Development will be provided at the detailed design stage. The List of Waste (LoW) code for each potential waste stream is shown in Table 6-3.

Table 6-3: Predicted Categories of C&D Waste

Waste Type	LoW Code
Concrete	17 01 01
Bricks	17 01 02
Mixture of Concrete, Bricks, Tiles, and Ceramics	17 01 07
Timber	17 02 01
Plastic	17 02 03
Bituminous Mixtures	17 03 02
Metals (including their alloys)	17 04 01, 17 04 02, 17 04 03, 17 04 04, 17 04 05, 17 04 06, and 17 04 07
Non-Hazardous Soil and Stone	17 05 04

The waste categories in Table 6-3 will be segregated into general waste and dry recycling categories.

There will also be a surplus of soil and bedrock arising from groundworks which will require offsite removal for reuse or recovery in accordance with appropriate statutory consents and approvals. Where possible, surplus soil that is verified to be clean inert soil will be removed from the Site under an Article 27 By-product notification.

The RWMP will be updated with predicted and actual C&D waste / surplus soil and bedrock quantities determined as part of the design for planning and as information becomes available in advance of construction works commencing on-site.

Until final materials and detailed construction methodologies have been confirmed, it is difficult to predict with a high level of accuracy the construction waste that will be generated from the proposed works as the exact materials and quantities may be subject to some degree of change and variation during the construction process. The RWMP is to be updated with actual quantities as information becomes available during the works. The waste management objective will be to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible.

A policy of ‘as needed’ ordering and strict purchasing procedures will also prevent waste arisings as far as possible.

6.5 Invasive Species

According to the Ecological Impact Assessment Report (EcIA), contained within the Biodiversity Chapter (Chapter 8) of the Environmental Impact Assessment Report (EIAR), the only invasive floral species recorded at the site during field surveys were Butterfly bush (*Buddleja davidii*) and sycamore (*Acer pseudeplatanus*). Despite being classified as a *Medium* impact invasive species, sycamore has recently been nominated as a potential replacement for Ash (*Fraxinus excelsior*) due to the similar ecological requirements and ability to support similar species (Short and Hawe 2018). As such, the need for their removal as an invasive species is considered low priority where not required, unless deemed necessary for health and safety reasons (e.g., poor condition).

In the event that further high-impact invasive species are identified at the site during construction works, an Invasive Alien Species (IAS) Management Plan will be developed which will identity mitigation measures to prevent uncontrolled transportation and dispersion of invasive species from the Proposed Development site. All works will be undertaken in accordance the mitigation measures outlined in the IAS Management Plan.

7 WASTE CLASSIFICATION

7.1 Roles and Responsibilities

7.1.1 Resource and Waste Manager

The appointed Resource and Waste Manager within the construction site management team will be responsible for ensuring all waste classification of wastes generated throughout the works to ensure offsite removal for recycling/ recovery and disposal in compliance with all relevant waste management legislation.

7.1.2 Environmental Officer

The appointed Environmental Officer will assist with the Construction Waste Manager as required by monitoring the movement and segregation of all waste steams across the site.

7.1.3 Environmental Consultant

Where necessary and if required, the appointed Environmental Consultant (ECG) will be responsible for completing any additional waste classification of excavated soil waste materials to enable off-site disposal in compliance with all relevant waste management legislation.

7.2 Waste Classification

7.2.1 C&D Waste Materials

The waste classification of inert C&D wastes generated throughout the construction phase of the development including structural concrete, metal, timber, cladding, plastics, cardboard, and tiles will be based on visual observations by the Waste Officer or appointed delegate.

7.2.2 Asbestos and Asbestos Containing Materials (ACMs)

It is anticipated that there will be no asbestos containing materials (ACMs) generated during the construction phase of the Proposed Development.

If ACMs are found at any stage during the construction phase, the client will be notified, and a suitable management plan will be implemented for the safe removal and disposal.

7.2.3 Soil and Stone

The removal of soil and stone offsite for disposal will be undertaken in accordance with all relevant waste management legislation.

7.2.3.1 Soil Sampling Plan

Although a ground investigation has been carried out by Causeway Geotech Limited in 2019, the following is the process to be followed in the unlikely event that potentially contaminated soil is uncovered during excavation.

All soil and stone materials will be sampled prior to removal to ensure that the materials are managed and removed off-site in accordance with waste management legislation, the waste classification of sample results will be based on the following method:

- Following excavation, all excavated materials regardless of previous classification will be stockpiled onsite to facilitate the collection of representative samples.
- Stockpiled soils pending waste classification and removal offsite will be segregated for appropriate sampling and testing (refer to Section 8.5.1).The stockpiled soils will be sampled at a frequency of 1 sample per 500 tonnes to ensure that the appropriate sample data is available for accurate waste classification to enable compliant removal of soil offsite in accordance with the with regulatory requirements for the intended destination facility or site and all applicable current legislation and industry guidelines.
- The soil encountered at each stockpile will be visually inspected, by the site Environmental Consultant for composition and to determine if there is any visual or olfactory evidence of anthropogenic contamination.
- Samples will be collected and placed in appropriate laboratory supplied containers. Each sample container will be labelled with a unique sample reference number and stored in cool, dark conditions for transfer to the laboratory. The samples will be transported to a UKAS accredited laboratory, under standard 'Chain of Custody'.
- The collection of samples, testing specification and classification will be undertaken by the appointed Environmental Consultant in accordance with requirements set out in Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous, (EPA, 2018). All samples will be analysed in accordance with the testing specification for laboratory analysis and assessed in accordance with the proposed methodology for waste classification detailed in Section 7.2.3.2 and Section 7.2.3.3 below respectively.
- Following sample collection, sample details including the stockpile sample location reference number will be recorded and retained in the waste management records (refer to 8.5.1).

If any additional soil sampling and classification is required (e.g., where ground conditions vary from those identified in previous reports, previously unidentified contaminated ground is encountered or to delineate identified contaminant hotspots), the Client will be informed immediately; Meath County County (MCC), the Environemtnal Protection Agency (EPA) and other relevant authorities will be notified as required and agreed with the Client and a supplementary soil management plan will be designed and implemented detailing the delineated extents of contaminated soil, the estimated volumes, mitigation measures, destinations for the authorised disposal/treatment and the designated authorised contractors for the movement of the material.

7.2.3.2 Laboratory Analysis for Soil Waste Classification

If required, the analytical suite in Table 7-1 will be used to enable an accurate waste classification for soil material at the site, additional analysis will be carried out, where deemed necessary. All sampling will be carried out at an accredited laboratory.

Table 7-1: Soil Analysis Summary Table.

Parameter	Analysis Type
Metals: **Antimony, Arsenic, Barium, Cadmium, Total Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Zinc, Boron, Hexavalent Chromium & Chromium III**	CEN 10:1 Leachate & Total Pollutant Content (Solid) analysis
Polycyclic Aromatic Hydrocarbons (PAHs): **EPA sum of 6 & EPA Sum of 17**	Total Pollutant Content (Solid) analysis
TPHCWG (Total Petroleum Hydrocarbon Criteria Working Group) and Mineral Oil (C10-C40)	Total Pollutant Content (Solid) analysis
Benzene, Toluene, Ethylbenzene, m/p-Xylene, o-Xylene (BTEX) and MTBE	Total Pollutant Content (Solid) analysis
Polychlorinated biphenyls (PCBs)	Total Pollutant Content (Solid) analysis
Fibre screen/ asbestos ID	Asbestos Screen Analysis
Asbestos Gravimetric Quantification (if required)	Asbestos Quantification Analysis
pH, Moisture content as % wet weight, Phenols, Total Organic Carbon (TOC), Total Cyanide, Total Sulphate, Sulphide, Elemental Sulphur	Total Pollutant Content (Solid) analysis
Chloride, Fluoride, Sulphate, Phenols, Dissolved Organic Carbon (DOC), Total Dissolved Solids (TDS) and Ammoniacal Nitrogen as N	CEN 10:1 Leachate

7.2.3.3 Soil Waste Classification

Stockpiled soils requiring offsite disposal at the site will be classified in accordance with the soil sampling plan outlined in Section 7.2.3.1.

Assessment and waste classification of sample results will be based on the following method:

- Assessment of results to determine if the sample is a hazardous or non-hazardous waste in accordance with EPA guidance 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' (EPA, 2018) using the http://www.hazwasteonline.com application developed by One Touch Data Limited based on Regulation (EC) No. 1272/2008: the classification, labelling and packaging of substances and mixtures (CLP), UK Environment Agency, 2021 Version 1.1 GB (EU Exit Update): Guidance on the Classification and Assessment of Waste (1st Edition v1.1.GB) Technical Guidance WM3 (UK EA, WM3 2021) and the Northern Ireland Environment Agency, 2021. Version 1.1 NI (EU Exit): Guidance on the Classification and Assessment of Waste (1st Edition v1.1.NI) Technical Guidance WM3 (NI EA, WM3 2021). It is noted that while both the UK EA, WM3 2021 and the NI EA, WM3 2021 guidance applies to different regulatory jurisdictions, their approach and methodology is accepted by the EPA.
- Screening the sample analytical results against the waste acceptance criteria (landfill WAC) set out in the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002) and the EPA (2020) 'Guidance on waste acceptance criteria at authorised soil recovery facilities.

- Screening the sample analytical results against the Maximum Concentrations and/or Soil Trigger Levels set out in the Environmental Protection Agency (2020) "Guidance on Waste Acceptance Criteria at Authorised Soil Recovery Facilities" (SRF WAC).
- Assigning a waste category for each sample is based on the above criteria and as summarised in **Error! Reference source not found.**.

Table 7-2: Soil Waste Classification and Waste Acceptance Criteria.

Waste Category	Classification Criteria
Category A	Uncontaminated soil and stone free from anthropogenic contamination (including up to 2% non-natural materials such as rubble, concrete brick) as per the EPA 'Guidance on waste acceptance criteria at authorised soil recovery facilities' (EPA, 2020). Note that individual soil recovery / waste permit/ COR facilities may have specific acceptance criteria that vary from this guidance (EPA, 2020) agreed with EPA or Local Authority.
Category B1	Results found to be non-hazardous using the HazWasteOnline^{tm} application[2]. Analytical results meet the inert waste acceptance criteria (WAC) limit values set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002).
Category B2	Results found to be non-hazardous using the HazWasteOnline^{tm} application[2]. Reported concentrations greater than Category B1 but meet the inert waste acceptance criteria for specific facilities that are licensed by the EPA to accept waste with limit values of up to three time the limit set in 2003/22/EC for example the IMS Hollywood (W0129 02/C) and Walshestown Restoration (W0254-01) .
Category C (Non- Hazardous)	Results found to be non-hazardous using the HazWasteOnline^{tm} application[2]. Analytical results greater than Category B1 and B2 criteria but less than non-hazardous waste acceptance criteria, which are based on waste acceptance criteria set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002).
Category C1 (Non- Hazardous) with asbestos fibre content <0.001% w/w	As category C and containing <0.001% w/w asbestos fibres.
Category C2 (Non- Hazardous) with asbestos fibre content <0.01% w/w	As category C and containing <0.01% w/w asbestos fibres.
Category C3 (Non- Hazardous) with asbestos fibre content <0.1% w/w	As category C and containing <0.1% w/w asbestos fibres.
Category D (Hazardous for Export)	Analytical results found to be hazardous using the HazWasteOnline^{tm} application.[2]
Category D1 (Hazardous for Export) with asbestos fibre content >0.1% w/w	Hazardous due to presence of fragments of identifiable fragments of asbestos containing material and (if applicable) analytical results found to be hazardous using the HazWasteOnline^{tm} application.[2]
NOTES 1. It should be noted that while waste soil maybe classified as inert based on the EU Council Decision 2003/33/EC and similarly, waste may be identified as inert and meeting the requirements set out in EPA	

Waste Category	Classification Criteria
	'Guidance on waste acceptance criteria at authorised soil recovery facilities' (EPA, 2020). However, waste acceptance criteria may vary at each receiving facility it is recommended that each facility is consulted to ensure that the material is suitable for recovery or disposal at the facility in compliance with permit/licence requirements and all statutory obligations. 2. Consultation may be required with the facility to confirm suitability for disposal. 3. http://www.hazwasteonline.com. Application developed by One Touch Data Limited based on Regulation (EC) No. 1272/2008: the classification, labelling and packaging of substances and mixtures (CLP), the UK EA WM3, 2021 guidance and the NI EA WM3, 2021 guidance. It is noted that while both the NI EA WM3, 2021 and the UK EA WM3, 2021 guidance applies to different regulatory jurisdictions, their approach and methodology is accepted by the EPA. 4. Soils with an asbestos fibre concentration of <0.1% will be classified as non-hazardous if all other analytical results found to be non-hazardous using the HazWasteOnline^{tm} application.

8 WASTE MANAGEMENT

8.1 Opportunities for Prevention and Reduction

Opportunities for the prevention and reduction of waste will be considered throughout all stages of the construction phase. The Main Contractor will plan the construction process to eliminate/reduce waste; specifically, careful planning will minimise the volume arising on-site, facilitate the use of reclaimed materials in the works, and influence wastage caused by poor materials handling.**Error! Reference source not found.**Table 8-1 the targets for recovery d uring the construction phase of the Proposed Development based on data from the EPA National Waste Statistics (EPA, December 2022. National Waste Statistics Summary Report for 2020).

Table 8-1 Final Treatment Operation by C&D Waste Stream in 2020 (EPA, 2022)

Treatment type	Recycling (t)	Energy recovery (t)	Backfilling (t)	Disposal (t)	Total
Metal waste	277,911	-	-	-	277,911
Segregated wood, glass & plastic	70,415	17,632	13	1,454	89,514
Concrete, brick, tile & gypsum	208,307	-	278,192	25,724	512,222
Waste Bituminous mixtures	61,306	1	46,741	187	108,235
Mixed C&D waste	27,728	13,654	23,942	10,972	76,297
Waste soils, stones & dredging spoil	5,548	-	6,276,522	497,916	6,779,987
Waste treatment residues	0	7,402	3,465	250,950	261,816
Total	**651,215**	**38,689**	**6,628,875**	**787,203**	**8,105,982**

The predicted recovery targets will be reviewed and updated by the appointed Contractor in advance of construction works commencing onsite when the detailed construction methodologies and waste classification and quantities have been confirmed. The waste management objective will be to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible removal of construction materials as by-product (refer to Section 7.2). A policy of ‘as needed’ ordering and strict purchasing procedures will also prevent waste arisings as far as possible.

8.2 Article 27 By-product

Where appropriate the removal of surplus materials as a by-product of the Proposed Development construction phase under an Article 27 By-product notification in accordance with Article 27 of the European Communities (Waste Directive) Regulations 2011 (S.I. No 126

of 2011) will be considered. Material will only be removed under an Article 27 By-product notification when it can be robustly demonstrated that all tests for Article 27 By-product are met.

8.3 Materials and Waste Management

The management of the main waste streams are detailed in the following sections.

In line with the Waste Hierarchy (from the Waste Framework Directive), prevention of waste and re-use will be prioritised over disposal. The construction phase of the Proposed Development will align with this policy by implementing the following measures:

- A policy of 'as needed' ordering and strict purchasing procedures will prevent waste arisings as far as possible;
- Any excavated soils and stones will be re-used on site for fill, and where possible, surplus soil that is verified to be clean inert soil will be removed from the site under an Article 27 By-product notification;
- Where required, imported Article 27 soils will be used for landscaping;
- All waste streams will be segregated onsite to ensure the correct recovery and recycling as per Section 6 of this report;
- As far as possible, site hording, facilities and welfare units will be repurposed from previous sites and projects to reduce waste and encourage a circular building environment; and
- Materials which have a high percentage of recycled material or that have a low environmental impact will be prioritised where feasible.

Figure 8-1: Waste Hierarchy. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste (Source: EPA, 2020)

8.3.1 Asbestos and Asbestos Containing Materials

It is not envisaged that any asbestos or asbestos-containing materials will be generated onsite. If detected, the management of asbestos at the site and off-site transport will be undertaken by an appointed specialist contractor in accordance with an asbestos management plan for the works.

Asbestos and ACMs will be removed by the specialist contractor into laminated, double walled and sealed 1 tonne bags. Temporary storage of asbestos and ACMs will be stored, where required, in a dedicated, secure, dedicated quarantine skip for non-conforming materials. The construction site management team will ensure that all drivers hold valid ADR training certificates, as required under the Carriage of Dangerous Goods Regulations, 2007. Waste will be transferred offsite by an authorised haulage contractor to an authorised waste transfer station for shipment and disposal in mainland Europe in accordance with Trans-Frontier Shipment (TFS) controls and legislative requirements.

8.3.2 Concrete and Bricks

The majority of concrete blocks and bricks generated as part of the construction works are expected to be clean, inert material. Concrete and bricks will be segregated for removal offsite to an authorised permitted/ licensed waste facility for recovery and/ or recycling.

8.3.3 Tarmacadam

Where possible it is anticipated that tarmacadam generated during construction works will be reused onsite (e.g., capping layer below access roads) subject to assessment of the suitability for use in accordance with engineering and environmental specifications for the Proposed Development. However, where the removal offsite of tarmacadam's is required, it will be segregated pending removal to an authorised permitted/licensed waste facility for recovery and/ or recycling.

8.3.4 Metal

Metals will be stored in a designated 'metal' skip onsite. Segregation of metals into mixed ferrous, aluminium cladding, high grade stainless steel, low grade stainless steel etc., will take place off site at an authorised recycling facility.

8.3.5 Timber Glass and Hard Plastic

Glass, hard plastic (e.g., material cut offs) and timber that is uncontaminated (i.e., free from paints, preservatives, glues etc.) will be segregated into dedicated skips/receptacles and recycled off-site at an authorised recycling facility.

8.3.6 Tiles, Ceramics and Gypsum

Tiles, ceramics and gypsum generated as part of the construction phase of the Proposed Development will be segregated into dedicated skips/receptacles and recycled off-site at an authorised recycling facility. Under no circumstances, will gypsum containing materials (e.g., plasterboard) be stored with mixed waste. The appointed Resource and Waste Manager or delegate will ensure that supply of new plasterboard is carefully monitored to minimise waste.

8.3.7 Waste Electrical and Electronic Equipment (WEEE)

Any WEEE will be stored in dedicated covered cages/receptacles/pallets pending collection for recycling.

8.3.8 Other Recyclables

Where any other recyclable wastes such as cardboard and soft plastic are generated from packaging, these will be segregated at source into dedicated skips and removed off-site.

8.3.9 Non-Recyclable Waste

C&D waste which is not suitable for reuse or recovery, such as polystyrene, some plastics and some contaminated cardboards, will be placed in separate skips or other suitable receptacles. Prior to removal from site, the non-recyclable waste skip/receptacle will be examined by the appointed Construction Waste Manager or delegate to determine if recyclable materials have been placed in there in error. If this is the case, efforts will be made to determine the cause of the waste not being segregated correctly and recyclable waste will be removed and placed into the appropriate receptacle.

8.3.10 Hazardous Wastes

Onsite storage of any hazardous wastes produced will be kept to a minimum, with removal offsite organised on a regular basis. Storage of all hazardous wastes on-site will be undertaken so as to minimise exposure to onsite personnel and the public and to also minimise potential for environmental impacts. Hazardous wastes will be recovered, wherever possible, and failing this, disposed of appropriately. Hazardous wastes produced (i.e., waste fuels/chemicals) will be kept to a minimum, with removal off-site organised on a regular basis by an appointed specialist hazardous waste contactor.

In the unlikely event that hazardous wastes, previously deposited wastes or previously unidentified contaminated soil are discovered on-site, the Main Contractor will immediately notify the Client and other relevant authorities as required, and a hazardous waste/soil management plan will be designed and implemented detailing the estimated volumes, mitigation measures, destinations for the authorised disposal/treatment and the designated authorised contractors for the movement of the material. This is precautionary as there is no indication of hazardous materials on site.

Potentially hazardous waste soil will be segregated and stored appropriately so as to minimise exposure to onsite personnel and the public and to also minimise potential for environmental impacts. Hazardous wastes will be recovered wherever possible and, failing this, disposed of appropriately.

8.3.11 Soil and Stone

The removal of soil and stone offsite for recovery will be undertaken in accordance with the soil sampling plan. All surplus materials will be removed offsite in accordance with waste management legislation.

Stockpiled soil and stone pending sampling, laboratory analysis and waste classification will be managed in accordance with the procedures in this RWMP.

8.4 Segregation of Waste On-Site

Material will be segregated on-site for the appropriate waste stream and recovery/recycling/ disposal destination. The Main Contractor will ensure waste streams are adequately identified. The segregation and management of waste storage and stockpiling will be routinely inspected and audited and the audit findings recorded in the RWMP records.

Concrete will be segregated for removal off-site to an authorised permitted/licensed waste facility for recovery, recycling.

C&D waste will be segregated onsite into labelled dedicated skips and the Main Contractor will make arrangements for regular collection and disposal of same offsite. Where the onsite segregation of certain waste types is not practical, offsite segregation will be carried out an authorised waste recovery facility.

Dedicated bunded storage containers will be provided for hazardous wastes which may arise such as batteries, paints, oils and chemicals.

Asbestos and ACMs will be stored, where required, in a dedicated, secure, dedicated quarantine skip for non-conforming materials.

Waste materials generated from site office and canteen will be segregated into general waste, biodegradable waste and dry recycling and stored in appropriate refuse bins in a dedicated storage area on-site.

Any heavily contaminated material/soil that may be encountered onsite will need to be segregated for appropriate sampling, waste classification and authorised removal offsite. The temporary storage of any contaminated material/soil will be stored in accordance with best practice and as set out in Section 8.5.

The construction site management will ensure that site personnel involved in the excavation and removal of waste soil materials at the site are informed of and can identify the different waste types and categories of waste soil materials encountered onsite.

8.5 Storage of Waste and Stockpile Management

Designated waste storage areas will be provided onsite for the duration of the construction works as presented in Figure 4-1. The dedicated waste storage areas within the Waste Segregation points will house all bins and skips for the storage of segregated construction waste generated. All containers will be marked with clear signage which will identify which waste types are to be placed into each container.

It is noted that adequate storage space will be provided in a dedicated waste storage area on the site to accommodate the separate collection of dry recyclables and organic food/garden waste. The dedicated waste storage area will not be visible from or on a public street, it will be outdoors and secure. All bins and skips will be collected from the waste compound and will not be placed for collection on the public street.

8.5.1 Soil Stockpiles

Where material is being temporarily stockpiled onsite pending waste classification for removal off-site or for reuse in the Proposed Development, the material will be temporarily stockpiled in a designated, secure and impermeable area onsite. The temporary stockpiling of materials onsite will be undertaken in consultation with the Client, and where required the Environmental Regulation Unit of MCC and the EPA, prior to commencing storage, to ensure that any relevant authorisations are obtained and that soil is managed, at all times, in accordance with all relevant legislation. Surplus soil identified as surplus for requirement will be compliantly removed from the site and received at the final authorised recovery/reuse/disposal facility in accordance with the appropriate waste management legislation.

Stockpiles of different waste material will be located, maintained, and separated by a sufficient distance to prevent any inadvertent mixing of excavated material. All stockpiles will be clearly identified (e.g., signage) and recorded on a site map.

When a stockpile has been sampled for classification purposes (Refer to Section 7.2), it will be considered to be complete, and no more soil will be added to that stockpile prior to disposal. An excavation/stockpile register will be maintained on-site showing at least the following information:

- Stockpile number;
- Origin (i.e., location and depth of excavation);
- Approximate volume of stockpile;
- Date of creation;
- Description and Classification of material;
- Date sampled;
- Date removed from site;
- Haulier details including waste collection permit details;
- Disposal/recovery destination including waste facility permit / licence details; and
- Photograph.

Details on the management of stockpiles and procedures to prevent environmental and nuisance issues are set out in the CEMP (Enviroguide, 2024). Stockpiles will be located, arranged and managed so that risk to receiving water, and other receptors, from silt and contaminants is minimised.

8.5.2 Storage of Waste Policy

Waste storage, fuel storage and stockpiling and movement are to be undertaken with a view to protecting the underlying soils and groundwater. Waste will be stored on-site, including non-hazardous soil and stone and inert C&D wastes, in such a manner as to:

- Prevent environmental pollution (bunded and/or covered storage, minimise noise generation and implement dust/odour control measures, as may be required);

- Maximise waste segregation to minimise potential cross contamination of waste streams and facilitate subsequent re-use, recycling, and recovery; and
- Prevent hazards to site workers and the public during construction phase (largely noise, vibration and dust).

9 OFF-SITE REMOVAL OF WASTE

9.1 Removal and Disposal of Surplus and Waste Materials

Removal and recovery/recycling/disposal of all waste materials will be carried out in accordance with the Waste Management Act 1996 and as amended, S.I. No. 820/2007 - Waste Management (Collection Permit) Regulations 2007 and as amended and S.I. No. 821/2007 - Waste Management (Facility Permit and Registration) Regulations 2007 and as amended. This includes the requirement for all waste contractors to have a waste collection permit issued by the NWCPO. The construction site management will maintain a copy and a register of all waste collection permits on-site and will review these to ensure they have not expired. All permits must be reviewed prior to removal of any waste from the Site.

9.2 Waste Management Procedure

All waste will be documented prior to leaving the site. Waste will be logged by the construction site management team.

Prior to any removal of waste from the site, written confirmation should be obtained from the receiving waste facility, that acceptance of the waste will be in accordance with all waste management legislation and the conditions of the receiving waste facility licence or permit. A copy of the applicable licences and permits should be obtained and retained on-site.

If the waste is being transported to another site, a copy of the Local Authority waste COR/permit or EPA Licence for that site will be provided to the construction site management. If the waste is being shipped abroad, a copy of the Transfrontier Shipping (TFS) notification document will be obtained from the National Transfrontier Shipment of Waste Office (NTFSO) (as the relevant authority on behalf of all local authorities in Ireland) and kept on-site along with details of the final destination (COR, permits, licences etc.). A receipt from the final destination of the material will be kept as part of the on-site waste management records. Regular audits of waste paperwork will be undertaken to ensure traceability of all loads off site to the final destination.

To control off-site movements of waste a comprehensive docketing / waste tracking system should be implemented on-site. A daily record (including preparing and reconciling waste transfer note) of excavation at, and dispatch from the site should be maintained on-site.

All material excavated or segregated for off-site disposal should be transferred from site under chain of custody or waste dispatch dockets that should record:

- Date and time of transfer;
- Name of Carrier;
- Vehicle Registration and Name of Driver;
- European Waste Classification Code;
- Waste Classification and origin of material at the site; and
- Destination of load (receiving facility).

All waste will be documented prior to leaving the site. Waste volumes will be recorded by the Main Contractor, either by obtaining the weighbridge weight from at the destination facility or by converting cubic meters to tonnes.

It is recommended that chain of custody / waste dispatch dockets are issued in triplicate. On dispatch the docket should be signed by the issuing operative and one copy retained on-site, which will be entered into the site electronic records. The remaining two copies should accompany the load and be signed or stamped by the receiving facility.

A record of all waste removed from the site including its ultimate disposal destination will be maintained on-site available for inspection on-site.

All necessary documentation requirements will be fulfilled prior to transfer of material. A log of each load of waste materials being transported off-site will be compiled that will include details of the waste collection permit or skip operator licence, load of materials, name of the destination facility and serial number on the accompanying waste docket. In addition, the stamped dockets and gate receipts will be cross checked against details of the outgoing load and details entered on the log sheet. A record of all necessary documentation including waste transfer documents and landfill gate receipts will be stored in the waste management file. A copy of the Waste Management Log Sheet Template is included in Appendix B.

All loads will be checked prior to exiting the site. In addition to logging the trucks of waste materials, all trucks will be visually inspected to ensure the loads are within the permissible haulage limits. All trucks and skips will be covered, and any loose debris removed prior to leaving the site.

Some of the sub-contractors on-site will generate waste in relatively low quantities. The transportation of non-hazardous waste by persons who are not directly involved with the waste business, at weights less than or equal to 2 tonnes, and in vehicles not designed for the carriage of waste, are exempt from the requirement to have a waste collection permit (Ref. Article 30 (1) (b) of the Waste Collection Permit Regulations 2007 as amended). Any sub-contractors engaged that do not generate more than 2 tonnes of waste at any one time can transport this waste off-site in their work vehicles (which are not designed for the carriage of waste). However, they are required to ensure that the receiving facility has the appropriate COR / permit / licence and the waste generated must be ancillary to their own activities.

9.3 Off-Site Destinations for Waste Materials

All waste materials that will be required to be transported off-site for further treatment or disposal will be undertaken in compliance with all Waste Management Legislation and all waste materials will only be transferred to appropriately permitted or licensed waste management facilities.

Details of the nominated waste facilities proposed for each specified waste type will be provided to Meath County Council (MCC) once appointed by the Main Contractor in advance of construction works commencing on-site.

The construction site management will be required to maintain a detailed register of the nominated waste facilities (i.e., facility location, waste facility permit / licence number and

expiry / renewal date) proposed for each specified waste type and to obtain a copy of all waste facility licences/permits which will be retained within the waste management file.

The expiry dates on all licences and permits will be reviewed routinely by the construction site management as part of the waste audits. The construction site management will ensure that only facilities with a valid permit or licence a will be retained for off-site management of waste.

9.4 Waste Collection and Transport

Only carriers/hauliers with a valid NWCPO issued Waste Collection Permit which authorises the transport of the applicable List of Waste (LoW) Code and delivery to the receiving facility will be appointed to transport the waste from the Site.

Details of the nominated carriers/hauliers proposed for each specified waste type will be provided to MCC once appointed by the Contractor in advance of construction works commencing on-site.

The construction site management will be required to maintain a detailed register of the waste haulage contractors (i.e., haulage contractor name, address, waste collection permit / skip operator licence number and expiry date) proposed for each specified waste type and to obtain a copy of all the applicable permits / licences which will be retained within the waste management file.

The expiry dates on all permits will be reviewed routinely as part of the waste audits. Only haulage contractors with a valid permit will be retained for off-site removal of waste.

10 WASTE AUDIT AND INSPECTION

The construction site management team will be responsible for conducting waste inspections at the site during the construction works to ensure the compliance with waste management procedures as outlined above to ensure that all procedures are strictly adhered to.

Waste skips/receptacles and stockpiles (if required) will be inspected regularly to ensure materials are segregated on-site for the appropriate waste stream and disposal destination.

Regular audits will be undertaken which will include checking the following in relation to waste management onsite:

- Segregation and storage practices;
- Recycling rates;
- Litter prevention practices;
- Documentation for waste removed;
- Documentation for waste received at destination facilities;
- Centrally recorded waste data;
- Waste collection permits for all waste hauliers used; and
- Waste management facility permits/licences for all waste management facilities used.

Regular site inspections will be carried out to check for housekeeping, litter, and correct segregation. Where poor segregation practices are observed, littering is apparent or housekeeping falls below standard, a non-conformance and designation for corrective action will be raised.

Regular checks will be carried out to ensure that all waste is accounted for, and full load traceability exists. Any missing documentation should be sought from the waste haulier and the waste destination in the event that it is not present for audit and inspection.

11 RECORD KEEPING AND REPORTING

11.1 Maintaining Records

Records will be kept for all waste material which leaves the site, either for reuse on another site, recycling, recovery or disposal. A Waste Register (spreadsheet) will be held on site where a record will be kept of each waste consignment taken from the site. This spreadsheet will be maintained and made available for inspection by authorised officers of Meath County Council. The details recorded for each consignment will, at a minimum, include:

- Date of removal of waste;
- Waste stream;
- Waste EWC code;
- Waste contractor details including NWCPO Permit Number;
- Vehicle registration;
- Driver name;
- Docket number for waste leaving the site;
- Quantity of waste (in tonnes or litres as appropriate);
- Waste treatment (Reuse/Recycling/Disposal) including appropriate disposal/ recovery code;
- Transporter of waste (including transporters licence number);
- Final destination of the waste; and
- Confirmation that waste was received/accepted by designated facility.

All necessary documentation requirements will be fulfilled prior to transfer of material.

Similar records will be maintained on site and available for inspection detailing all materials exported under any EPA Article 27 notifications.

A copy of the receiving waste facility permits and licences with all appendices will be retained onsite.

A copy of the NWCPO waste collection permit with all appendices will also be retained on-site.

As well as the Waste Management Log Sheet (register) (refer to Appendix B) will record the following:

- Waste removed for reuse off-site;
- Waste removed for recycling;
- Waste removed for disposal; and
- Reclaimed waste materials brought to site for reuse (if required).

All waste will be documented prior to leaving the site. Waste volumes will be recorded by the Main Contractor, either by obtaining the weighbridge weight from at the destination facility or by converting cubic meters to tonnes. In all cases the number of loads will be recorded so that these can be cross checked, and the weights obtained from the destination facility. These waste records will be provided and maintained on site by the construction site management team and provided to the Client for auditing.

11.2 Non-Conformance and Corrective and Preventative Action

Non-conformances may be raised through site inspection or audit, or by any site personnel by reporting a non-conformance to the construction site management.

Non-conformances will be recorded and investigated to determine the root cause, and Corrective Action Requests (CARs) will be issued to ensure that prompt action is agreed and committed to, with a view to the effective resolution of any deviations from the RWMP requirements or any environmental issues.

CARs may be raised as a result of:

- An internal or external communication;
- An internal audit;
- A regulatory audit or inspection;
- A suggestion for improvement;
- A complaint; or
- An incident or potential incident.
- All corrective action requests will be numbered and logged.

Corrective Action Requests will only be closed out on sign off by the Contractor's Site Management that the required corrective actions have been completed.

11.3 Reporting

A record of all necessary documentation including waste transfer documents and landfill gate receipts will be stored in the waste management file.

Regular reports regarding the management of waste during construction works will be maintained and made available for viewing as required.

In the event that hazardous wastes, previously deposited hazardous wastes or previously unidentified contaminated soil are discovered on-site, the construction site management will immediately notify MCC, and other relevant authorities as required, and a hazardous waste/soil management plan will be designed and implemented detailing the estimated volumes, mitigation measures, destinations for the authorised disposal/ treatment and the designated authorised contractors for the movement of the material.

12 CONSULTATION WITH RELEVANT BODIES

12.1 Local Authority

The local authority Meath County Council will be consulted as required throughout the construction phase.

Regular reports regarding the management of the construction waste during works, will be made available electronically to the Environmental Regulation Unit of Meath County Council as required.

13 REFERENCES

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Appendix A

Register of Legislation, Policy and Regulations

Register of Waste Policy, Legislation and Regulations
Article 27 of the European (Waste Directive) Regulations (S.I. No 126 of 2011)
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Waste Management (Collection Permit) Regulations (S.I No. 820 of 2007) as amended 2008 (S.I No 87 of 2008), 2015 (S.I. No. 197 of 2015) and 2016 (S.I. No. 24 and 346 of 2016).
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Waste Management (Food Waste) Regulations 2009 (S.I. 508 of 2009), as amended 2015 (S.I. 190 of 2015) and European Union (Household Food Waste and Bio-waste) Regulation 2015 (S.I. No. 191 of 2015).
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Waste Management (Movement of Hazardous Waste) Regulations, 1998 (S.I. No. 147 of 1998).

Appendix B

Waste Management Log Sheet – (Digital Log to be Maintained On-Site)

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Date of Issue:

Issue Date:

RECEIVED: 06/09/2024

Project: JCL LRD

SITE RECORD OF OFF-SITE DISPOSALS

Disposal Type:	
LoW Code	
Site:	
Project No:	

Page:	1
Site Last Updated:	
Accounts Last Updated:	

Date	Time	HDL Ticket No	Carriers Ticket No	Vehicle Registration No.	Site Area/Location	Skip Size	Waste Type	Haulage Company	Waste Facility Destination	Net Weight/	ACCOUNTS USE ONLY		
											Inv weight	Supplier Inv #	Invoice Ref.

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