Water Rock Urban Expansion Area Infrastructure Works, Water Rock, Midleton, County Cork

Archaeological, Architectural and Built Heritage Impact Assessment

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1. Introduction

John Cronin & Associates have been commissioned by Atkins Ireland Limited to identify archaeological and architectural heritage constraints and assess potential impacts in the environs of proposed infrastructural works within lands in the Water-Rock area, Midleton, County Cork. The subject lands are located on the north side of Midleton/Youghal branch of the former Cork, Youghal & Queenstown Railway and are to the west of Midleton town.

Atkins Ireland Limited have been appointed by Cork County Council as consulting engineers for the project which will involve the creation of a number of elements of new infrastructure to service lands in this area for the construction of up to 2,500 houses. This report assesses the locations of the proposed infrastructure development and not the surrounding lands proposed for future housing developments.

The aim of this report is to present summary details on the locations of recorded elements of the archaeological and architectural heritage resources within the environs of the proposed scheme in order to identify any potential impacts on these resources. To this end a study area comprising the lands on the footprint of the proposed infrastructure works was reviewed in combination with the lands extending for 1km from their boundaries. The grid references for all recorded archaeological and architectural sites within this study area are presented in Section 2.

The compilation of this report was informed by consultation with Cork County Council’s Conservation Officer (Mona Hallinan) and Executive Archaeologist (Mary Sleeman).

Figure 1: Location of Water Rock Urban Expansion Area Infrastructure
Methodology
The principal sources reviewed for the known archaeological resource were the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP) for County Cork. These provide comprehensive lists of the known archaeological resource and their legislative basis is outlined below. The Record of Protected Structures (RPS) and the National Inventory of Architectural Heritage (NIAH) were the main sources consulted for assessing the recorded architectural heritage resource.

The following sources were also consulted:

- **Excavations Database** - This database contains summary accounts of all archaeological excavations carried out in Ireland (North and South) from 1970 to 2018.

- **Development Plan** - The relevant development plan for the study area is the Cork County Development Plan (2014-2020) and this outlines the planning policies for the protection of the archaeological and architectural heritage resource. The Midleton Town Development Plan (2013) was also consulted.

- **National Inventory of Architectural Heritage** - The National Inventory of Architectural Heritage (NIAH) records a selection of architectural heritage structures within the State. The inclusion of a structure in the NIAH does not necessarily carry any statutory protection but is intended to advise local authorities in relation to structures of interest within their areas.

- **Cartographic and Aerial Sources** - The detail on cartographic sources can indicate past settlement and land use patterns in recent centuries and can also highlight the impact of modern developments and agricultural practices. This information can aid in the identification of the location and extent of unrecorded, or partially levelled, features of archaeological or architectural heritage interest. The cartographic sources examined for the study areas include the 1st edition of the 6-inch OS maps (surveyed in 1841) and the 25-inch OS maps (surveyed in 1902). A review of available online aerial images of the proposed development areas was also undertaken.

- **Placenames Database of Ireland** - The Placenames Database provides a comprehensive management system for data, archival records and placenames research conducted by the State. Its primary function is to undertake research in order to establish the correct Irish language forms of the placenames of Ireland and to publish them on a public website (www.logainm.ie).
2. Context

Environmental context
The proposed development areas are situated in farmland within Water-rock, Ballyrichard More, Broomfield West, Knockgriffin and Curragh townlands in a general area located 1km to the west of Midleton town. The bedrock in this area comprises pale-grey massive limestone at the south and north, with east to west bands of mudstone, sandstone and thin limestone and argillaceous dark-grey bioclastic limestone, and subsidiary shale across the centre. The soil profiles are of river alluvium to the east and a coarse loamy drift with siliceous stones to the west. Further details on the physical environment of the subject lands are provided in Section 3 of this report.

Legal and planning context
The management and protection of cultural heritage in Ireland is achieved through a framework of international conventions and national laws and policies. This framework was established in accordance with the provisions of the ‘European Convention on the Protection of the Archaeological Heritage’ (the Valletta Convention) and ‘European Convention on the Protection of Architectural Heritage’ (Grenada Convention). Cultural heritage can be divided loosely into the archaeological resource covering sites and monuments from the prehistoric period until the post-medieval period and the architectural heritage resource, encompassing standing structures and sites of cultural importance dating from the post-medieval and modern period. In addition, local place names, folklore and traditions are considered part of our cultural heritage.

In summary, the national legislation and guidelines of relevance include:
- Heritage Act (1995);
- National Cultural Institutions Act (1997);
- Policy for the Protection of the Archaeological Heritage (Department of Arts, Heritage, Gaeltacht and the Islands 1999);
- Architectural Heritage (National Inventory) and National Monuments Act (1999);
- Planning and Development Act (2000); and

Relevant Archaeological Legislation and Policies
The National Monuments Acts 1930 to 2004, the Heritage Act 1995 and relevant provisions of the National Cultural Institutions Act 1997 are the primary means of ensuring the satisfactory protection of archaeological remains. The Cork County Development Plan (2014)\(^1\) also outlines a number of objectives in relation to the protection of the archaeological resource.

The National Monuments Service (NMS), which is currently based in the Department of Arts, Culture and the Gaeltacht, is responsible for the protection of the archaeological resource within the State.

A National Monument is described as ‘a monument or the remains of a monument, the preservation of which is a matter of national importance’ in Section 2 of the National Monuments Act, 1930. There are no National Monuments within the study area while one example is located within the surrounding wider landscape: Barryscourt Castle (PO no. 4/1974; Nat. Monument No. 641), located approx. 4.4km to the southwest of the subject lands.

\(^1\) [https://epublishbyus.com/ebook/ebook?id=10040632#/198]
The Record of Monuments and Places (RMP) was established under the National Monuments (Amendment) Act, 1994 and is based on the earlier Sites and Monuments Record (SMR). The record comprises lists and maps of known archaeological monuments and relevant places within each county in the State. All archaeological sites recorded on the RMP receive statutory protection under the National Monuments Act 1994. As detailed below, there are three recorded archaeological sites located within 1km of the subject lands and the nearest example, a lime kiln (CO076-018----), is located c.30m to the southwest of the Water-Rock road realignment. The other two examples are over 700m from proposed work areas.

Relevant Architectural Heritage Legislation and Policies
Protection of the architectural/built heritage resource is provided through a range of legal and policy instruments. The Heritage Act (1995) protects all heritage buildings owned by a local authority from damage and destruction. The Planning and Development Act (2000) requires all Planning Authorities to keep a ‘Record of Protected Structures’ (RPS) of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. There are no Protected Structures within the study area.

The Architectural Heritage Act, 1999, saw the establishment of the National Inventory of Architectural Heritage (NIAH) in order to record significant architectural heritage structures within the State and to advise local authorities in relation to structures of interest. Eleven of the structures within the study area are listed in the NIAH (Table 1) and none of these are located in close proximity to the proposed infrastructure works.

Table 1: NIAH structures within study area

<table>
<thead>
<tr>
<th>NIAH Ref.</th>
<th>Townland</th>
<th>Classification</th>
<th>ITM Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20907607</td>
<td>Knockgriffin</td>
<td>Woodview house</td>
<td>587181, 573615</td>
</tr>
<tr>
<td>20907608</td>
<td>Knockgriffin</td>
<td>House</td>
<td>587224, 573619</td>
</tr>
<tr>
<td>20907609</td>
<td>Knockgriffin</td>
<td>House</td>
<td>587269, 573625</td>
</tr>
<tr>
<td>20830001</td>
<td>Oatencake</td>
<td>House</td>
<td>587313, 573694</td>
</tr>
<tr>
<td>20830007</td>
<td>Townparks</td>
<td>House</td>
<td>587877, 574110</td>
</tr>
<tr>
<td>20830006</td>
<td>Townparks</td>
<td>Post-box</td>
<td>587767, 574231</td>
</tr>
<tr>
<td>20907668</td>
<td>Townparks</td>
<td>Worker’s house</td>
<td>587853, 574275</td>
</tr>
<tr>
<td>20907610</td>
<td>Townparks</td>
<td>Railway Station</td>
<td>567938, 574343</td>
</tr>
<tr>
<td>20906519</td>
<td>Broomfield West</td>
<td>Cloonmullin House</td>
<td>587324, 575130</td>
</tr>
<tr>
<td>20906518</td>
<td>Carrigogna</td>
<td>Worker’s house</td>
<td>587315, 575519</td>
</tr>
<tr>
<td>20906517</td>
<td>Carrigogna</td>
<td>Carrig house</td>
<td>587156, 575777</td>
</tr>
</tbody>
</table>

Archaeological Context
There are three recorded monuments (RMPs) located within the study area: a lime kiln, a mill and a tree-ring (Table 2; Figures 2 and 3). These features all date to the post-medieval period and none are located on the footprint of lands to be impacted by the proposed works. A linear earthwork known as the ‘Claidh Buidhe’ (Yellow Ditch) (RMP CO076-092----) is recorded on the southern boundary of Water-rock townland in the area outside the south end of the study area. While the earthwork is not recorded as extending into the study area; the north end of the Water-Rock townland boundary forms the eastern boundary of Fields 1 and 2 and the western boundary of Field 3 (see below for field locations). The Cork Archaeological Survey (Power 1994) describes this linear earthwork as a double line of banks with a pathway on top and none of the field boundaries in the vicinity of the proposed scheme conform to this description.
A number of archaeological features were noted during various programmes of archaeological testing and monitoring carried out in townlands in the vicinity of the subject site. These include the remains of a landscaped demesne feature, identified at Baneshane (Licence ref. 06E0065), a kiln at Broomfield East (Licence ref. 09E0059), and two mill-races, a wall and two drains associated with Avoncore Mills (built c. 1824), in the townland of Townparks (Licence ref. 06E1165) (Table 3). None of these features were uncovered in close vicinity to the proposed infrastructure works.

The following tables present the Archaeological Survey of Ireland (ASI) inventory descriptions of the recorded archaeological sites within the subject area (Table 3) and the results of the archaeological investigations within the environs of the subject site (Table 4).
stoking-hole evident. Recess arch filled with masonry, formerly supported by wooden lintel. Top of kiln enclosed by stone wall. Buttress against E wall. Funnel infilled. Remains of structure adjacent to SE corner.

<table>
<thead>
<tr>
<th>SMR No.</th>
<th>Class</th>
<th>Townland</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO076-112-****</td>
<td>Mill - corn</td>
<td>Townparks (Imokilly By., Middleton Par.)</td>
<td>Indicated as 'Flour Mill' on 1842 OS 6-inch map with mill race flowing along W end; on N side of Midleton. Indicated on 1902 OS 6-inch map as 'Condensed Milk Factory'. Access to mill yard and buildings not gained. Rectangular (long axis E-W) roofless 8-bay, 5-storey mill. Random rubble limestone construction; two upper storeys have chamfered limestone quoins, similar to quoins of building attached to E. Brick surrounds to opes. According to local information, turbine replaced waterwheel in 1940s. Three-storey kiln attached to E; 3-storey structure attached to N side of kiln and mill. Yard to S with multiphase buildings along roadside boundary. Two-storey gable-ended residential house to N, now part of separate property. According to local information, burnt twice in recent past.</td>
</tr>
</tbody>
</table>

Table 4: Summaries of archaeological excavations (www.excavations.ie)

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Licence</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baneshane, Cork</td>
<td>95E0128</td>
<td>Test-trenching was deemed necessary as the site is shown on OS maps as an oval enclosure. The north-east/south-east section of the enclosing element is now demolished and the surviving section is identical in form to the surrounding field fences. Several trenches were excavated within the enclosure and the digging of the house foundations was monitored. No archaeological features or objects were found.</td>
</tr>
<tr>
<td>Baneshane, Cork</td>
<td>06E0065</td>
<td>Test-trenching was carried out before construction of two dwelling houses in a greenfield site located immediately to the west of an oval enclosure, which measures 120m north–south by 90m. The east boundary of the development site is formed by the curved earthen bank delimiting the west side of the enclosure. The earthen bank in this area measures 0.6–1m high by 0.4m thick and is colonised by mature trees. This feature will not be impacted on by the development and there was no visible surface trace of an enclosure ditch. The eastern line of the enclosure bank was removed during land improvement works in 1975. A programme of test-trenching and monitoring was previously carried out by Eamonn Cotter in the interior of the enclosure prior to, and during, the construction of a dwelling house within the north-west quadrant of the site (Excavations 1995, No. 24, 95E0128). There were no archaeological features or finds uncovered during those site investigations. The stratigraphy encountered in the eleven test-trenches excavated in the proposed development site to the west of the enclosure consisted of the topsoil layer directly overlying the natural subsoil.</td>
</tr>
<tr>
<td>Curraleigh West to Midleton</td>
<td>09E0059</td>
<td>The BGE Curraleigh West to Midleton gas pipeline route measured c. 47km in length. The pipeline corridor was generally 30m in width, but it was wider in some locations, such as river and road crossings. The pipeline route traversed a varying landscape in terms of the topography and underlying geology and was carefully selected to avoid direct impact on known...</td>
</tr>
</tbody>
</table>
Summary

archaeological sites. Thirty-seven previously unidentified sites were identified during monitoring of topsoil-stripping along the route. These ranged in date from the Neolithic to the post-medieval period. Twenty-one of these sites were excavated under this monitoring licence and the remainder (16) were excavated under a separate licence number. The sites excavated under the monitoring licence are described in brief below.


Knockgriffin/Townparks, Midleton, Cork

A centreline test-trench was excavated along the proposed route of the Midleton Northern Relief Road, for a total distance of 1.15km. A total of 76 offsets, 10m long, were excavated at right angles to the centreline every 20m. The stratigraphy on the site consisted of mid-brown stony topsoil, 0.4–0.7m deep, over orange gravelly subsoil. A linear feature with topsoil fill, 1.6m wide by 0.5m deep, was noted in a field in the townland of Knockgriffin. No other archaeological finds or features were noted during testing. It is proposed to monitor the next phase of the development.

Knockgriffin/Townparks, Midleton, Cork

A centre-line test-trench was excavated along the proposed route of the Midleton northern relief road for a total distance of 1.15km. A total of 76 offsets, 10m long, were excavated at right angles to the centre line every 20m. The stratigraphy along the route of the proposed road consisted generally of mid-brown stony topsoil, 0.4–0.7m deep, over orange gravelly subsoil. There are no recorded monuments on the route, nor were any previously unrecorded monuments discovered during assessment and test-trenching. Following testing, part of two mill-races, a wall and two drains associated with Avoncore Mills (built c. 1824), in the townland of Townparks, were excavated. These features will be retained in situ under the proposed road.

Knockgriffin/Townparks

A metal-detector survey of the site of the proposed bridge over the Owenacurra River was undertaken on 14 September 2007 following a period of dry weather. Construction of the single-span bridge will not impact on the riverbed. Both banks of the river and the shallow water at the river’s edge were walked. The riverbank is in constant use for recreation and fishing purposes, with the result that there is quite a lot of modern rubbish littering the area. The metal detector registered frequent hits, but those that were identified were modern. It was impossible to identify all the hits. Nothing of archaeological significance was noted during the survey. The survey was undertaken in conjunction with test-trenching and excavation work (see No. 289 above, 06E1165) on the Midleton northern relief road.

Cartographic Sources

The cartographic sources examined for the subject lands comprised the 1st edition 6-inch Ordnance Survey (OS) map surveyed in 1841 and the 25-inch edition OS map surveyed in 1902. A number of online aerial images were also consulted in order to assess the extent of modern interventions.
within the environs of the proposed works and to identify any potential previously unrecorded archaeological sites.

The historic OS maps show the subject lands and their environs dominated by enclosed, vacant farmland with occasional dispersed farm buildings. The majority of the area remains as enclosed farmland with some modern industrial and house developments along the southern and eastern margins. Relevant extracts from the historic OS maps are presented in Section 3 of this report.

The railway line to the south side of the subject site forms a section of the Midleton/Youghal branch of the former Cork, Youghal & Queenstown Railway. The Cork and Youghal Railway company was established in the early 1850s and opened the first section of this line, between Midleton and Dunkettle, in 1859. The line had extended to Cobh (then Queenstown) by 1862 and by 1866 the company was sold to the Great Southern & Western Railway. Aside from summer trains to Youghal, this branch of the line was closed to passengers in 1963 and closed to both goods and passengers in 1988. The line was re-opened as far as Midleton in 2009.

A U-shaped range of buildings, open to the south, is evident on historic maps within the environs of the proposed railway station and crossing area. The ruinous remains of a number of these buildings are evident on aerial images and were noted during the field survey.

A number of other features which are indicative of archaeological potential were noted as ephemeral features on various aerial images within the study area. These included an irregular dark area of soil measuring c.30m across (ITM 586439, 575076) in Field 1 and very slight traces of a circular feature in an adjacent field to the east (ITM 586636, 574972), two curvilinear cropmarks, both measuring c.40m across (ITM 586016, 575049), a c.100m diameter circular feature within a ploughed field (ITM 586833, 573900), a possible enclosure (ITM 586798, 573643) and an indistinct cluster of features (ITM 586866, 574101). None of these potential archaeological features are on the footprint of, or in close proximity to, the proposed infrastructure works and will, therefore, not be impacted.

**Recorded Architectural heritage**

There are eleven structures listed in the NIAH (identified within Table 1 above) within the study area. None of these structures are located within 600m of the proposed infrastructure works. There are no Protected Structures within the study area.

**Placenames**

Townlands are the smallest unit of land division in the Irish landscape and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. The boundaries and nomenclature of the Irish townlands were recorded and standardised by the Ordnance Survey in the 19th-century. The Irish roots of townland names often refer to natural topographical features but some name elements may also give an indication of the presence of past human activity within the townland, e.g. *dun, lios or rath* indicate the presence of a ringfort while *temple, saggart, termon or kill* record an association with a church site. The study area extends into the townlands of Waterrock, Ballyrichard More, Broomfield West, Knockgriffin, Curragh and Townparks. These townland names record associations with natural topographical features and past ownership of the lands.

<table>
<thead>
<tr>
<th>Name</th>
<th>Irish</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baneshane</td>
<td>Bán Sheáin</td>
<td>bán white; lea-ground, grassy</td>
</tr>
<tr>
<td>Name</td>
<td>Irish</td>
<td>Translation</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Ballynabointra</td>
<td>Baile na Baintrí</td>
<td>&quot;John’s Bawn&quot;</td>
</tr>
<tr>
<td>Ballyrichard Beg</td>
<td>Baile Risteird beag</td>
<td>baile townland, town, homestead 'town of the widow'</td>
</tr>
<tr>
<td>Ballyrichard More</td>
<td>Baile Risteird mor</td>
<td>baile townland, town, homestead Richards town (small)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>baile townland, town, homestead Richards town (large)</td>
</tr>
<tr>
<td>Broomfield East</td>
<td>Cnoc na nGabhar Thoir</td>
<td>cnoc hill gabhar goat</td>
</tr>
<tr>
<td>Broomfield West</td>
<td>Cnoc na nGabhar Thiar</td>
<td>cnoc hill gabhar goat</td>
</tr>
<tr>
<td>Carrigogna</td>
<td>Carraig Ó gCionaoith</td>
<td>carraig rock 'O'Kinney’s Rock’</td>
</tr>
<tr>
<td>Curragh</td>
<td>An Currach</td>
<td>currach marsh</td>
</tr>
<tr>
<td>Garryduff</td>
<td>An Garraí Dubh</td>
<td>dubh: black garraí garden, court</td>
</tr>
<tr>
<td>Knockgriffin (x2)</td>
<td>Cnocán Ghrífin</td>
<td>cnocán hilllock ‘Griffin’s hill’</td>
</tr>
<tr>
<td>Oatencake</td>
<td>An Bhonnóg</td>
<td>‘I understand it originally took its name from the shape resembling an Oaten Cate baked on a Griddle’ (1844 note)</td>
</tr>
<tr>
<td>Townparks</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Water-rock</td>
<td>Carraig an Uisce</td>
<td>carraig rock uisce water</td>
</tr>
</tbody>
</table>
3. Description of Subject Lands

The proposed development comprises the following separate elements which make up the Water Rock UEA Infrastructure Works:

1. the construction of a new services corridor link road,
2. the construction of a new surface water drainage system,
3. Upgrade of Cork/ Midleton Road and Midleton Northern Relief Road junction,
4. traffic management measures for Water Rock Road
5. bridge over railway and extension to services corridor link road to access railway stop,
6. railway stop,
7. upgrade/realignment of the Water Rock road
8. Wastewater Pumping station.

The inspections of the proposed development areas for each of the above elements was undertaken in April and October 2018 in sunny weather conditions that provided good landscape visibility. The descriptions of the subject lands follow hereafter and the photographic record of the site inspections is provided in Appendix 1.

Figure 3: Map showing the location of the various elements of the ‘Water Rock Urban Expansion Area Infrastructure Works’ (recorded archaeological sites within study area indicated with green dots)
1. New corridor link road

This east to west aligned section of a proposed link road, extending eastwards from Water-Rock road, measures c.1.2km long and extends through seven fields. A c.110m wide area was inspected and this survey area also encroaches into an industrial area (Field 7) to the south and a further field (Field 8) to the north of the eastern end. The following table presents the results of the desktop and field survey of the proposed link road (descriptions of Fields 1 and 2 are provided above).

![Figure 4: Field numbering used during inspection of route of proposed link road](image)

**Table 6: Field survey inspection results for proposed link road**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The existing layout of this level field is present on the historic OSI maps, which show it as a vacant plot. The boundaries in all directions comprise tree-lined hedgerows that have become overgrown with scrub and gorse. The west end of the proposed link road corridor, which extends through the southern end of the field, had been recently ploughed at the time of the site survey while the eastern half remained under grass. A review of the online aerial images indicated that the entire field has been in use as tillage land in recent decades. Nothing of archaeological significance was noted within this field during the site survey.</td>
</tr>
<tr>
<td>4 and 5</td>
<td>The proposed link road will extend across the heavily overgrown boundary area between these two fields before continuing through a grass-covered area of Field 4 to the north. The boundary area is heavily overgrown with young trees, and a thick undergrowth of brambles and scrub, while large spoil heaps containing modern demolition rubble are also present. The overgrown remains of a sunken farm track, with earth-cut sides partially revetted with poorly preserved drystone walling, was noted extending north-south through this area. This feature is shown on the historic OSI maps and extends from a derelict farmyard area to the south which is also depicted on the OSI maps. The relatively immature trees within this area indicates that was allowed to develop as marginal land at some point during the 20th century and the presence of large dumps of modern construction soils and material suggests that it was also used as a spoil area, presumably during the construction of the modern industrial estates to the east. The proposed link corridor route then extends into an area of marginal pasture land in the south end of Field 4 and the only feature noted in this area was a modern, concrete built farm structure located outside the north end of the corridor.</td>
</tr>
<tr>
<td>6</td>
<td>This is shown as two field on the 1st edition OS map and as the same as its current form on the 25-inch map. The proposed road runs inside the southern boundary of this field. The field is slightly rolling and slopes very gently to the southern boundary. A thin hedge and fencing separates this field from area 7 to the south. At the time of inspection the field had recently been ploughed and a number of fragments of post-medieval and modern pottery were noted across the field. <strong>A gunflint was recovered during inspection towards the east end of this field</strong></td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td><strong>(ITM 586872, 574585).</strong> The form of this artefact conforms to the ‘rectangular wedge’ gunspall type and likely dates to between 1650 and 1775 (De Lotbiniere, 1984). The flint is damaged at the firing edge, possibly as a result of use or having been struck during ploughing. No features of archaeological significance were noted within this field during the site survey.</td>
</tr>
<tr>
<td>7</td>
<td>The road does not encroach into this industrial area; however it may impact the thin hedge and fencing separating it from field 6 to the north. This area is built up with concrete yard surfaces and structures. No features of archaeological significance were noted within this area during the site survey.</td>
</tr>
<tr>
<td>8</td>
<td>The road does not encroach into this field but may result in some disturbance to the boundary at the southwest corner. This field is slightly rolling and was under cereal stubble at the time of inspection. No features of archaeological significance were noted within this field during the site survey.</td>
</tr>
<tr>
<td>9</td>
<td>The proposed road crosses an access road to a house to the north into the northwest corner of this field and then turns to the southeast to run to join an existing road to the southwest. This field is shown as largely the same as its current form on historic mapping. The field is level and flat and was under cereal stubble at the time of inspection. The soil in this field is very stony and contain frequent fragments of modern pottery. A very large mound of overgrown soil is located at the north side and this may represent evidence of field clearance within the field in the recent past. A modern cut trackway along the west end of the northern boundary was in use by machinery at the time of inspection. No features of archaeological significance were noted within this field during the site survey.</td>
</tr>
</tbody>
</table>

**Figure 5: Gunflint recovered from within field 6**

2. **Surface Water drainage Route**

The route for the surface water drainage system mainly follows the new Services Corridor Link Road and the upgrade/realignment of Water Rock Road. The reminder of the proposed route which will comprise of a c. 1km surface water drainage pipe running from east to west was inspected. The route crosses a green field area to the west of the proposed train station and follows an existing roadway, directly north of the existing railway track. The proposed route then turns to run towards the north along an existing road. This route crosses a number of townland boundaries in this area. Along the centre of the route the track is in use as access to pasture fields to the west. A number of ephemeral features within a ploughed field to the south noted in aerial images (a c.100m diameter circular feature within a ploughed field (ITM 586833, 573900), a possible enclosure (ITM 586798, 573643) and an indistinct cluster of features (ITM 586866, 574101)). These potential archaeological features were not apparent at ground level during the field survey and none are located within close vicinity.
proximity to the potential drainage route. No features of archaeological significance were noted during inspection of the potential pipeline route.

3. Junction upgrade
This area has been extensively developed in recent decades with a car showroom to the southeast, a petrol station to the northeast, retail units to the northwest and warehouses/storage units on the southwest side. Nothing of archaeological significance was noted during the inspection of this location.

4. Water Rock road traffic management
The traffic management measures for Water Rock Road comprise closing the Water Rock Road level crossing to vehicular traffic using bollards at both sides of the level crossing. There will be no archaeological impacts from the proposed Water Rock road traffic management works.

5 and 6. Site of the proposed railway station, bridge and access road
This area encompasses sections of a field to the south of the railway line (southern field), a portion of a very scrubby field to the north of the railway line (northeastern field) and a field to the west (western field). A townland boundary forms the eastern side of the southern and northeastern fields and the northwestern boundary of the western field. There are no RMPs or NIAH structures within the environs of this area.

The southern field is level and scrubby with patches of bramble. An area of disturbance at the north appears to originate from the dumping of soil during the construction of the modern industrial estate to the east.

The western field is generally flat and poorly-drained with some rushes and surface water. Unlike adjoining areas this field does not appear to have been significantly disturbed. A small pond shown in the northeast of the western field on the 25-inch map is no longer present, perhaps indicating modern land drainage works.

The northeastern field contains mounds of tar and stone at the southern end which is adjacent to the railway track. It is flooded to c.0.5m deep in places in the southern portion and was, therefore, inaccessible in this area. The eastern portion of this field has been disturbed by the construction of an industrial estate adjoining to the east and domestic waste has also been dumped in this area. The northern end of the field is in rough pasture and very overgrown in places. At the centre of this field a U-shaped range of buildings, open to the south, are shown as unlabelled structures on the historic OS maps. The very heavily overgrown ruinous remains of a number of these buildings are still extant and appear to form the remains of a former agricultural complex. All of the buildings were roofless and many of the remaining walls were actively degenerating and collapsing with trees growing throughout. The remains of these buildings are outside the footprint of the proposed railway station and crossing and will not be impacted by the proposed scheme.
Figure 6: Location of proposed railway station, crossing and building ruins
7. Re-alignment of Water Rock road
The existing Water-Rock road is present on the 6-inch OS map and now comprises a tarmac-covered carriageway lined with low earthen, tree-lined field banks with localised sections of low random rubble walling. There are a number of modern houses located on both sides of the road, including two examples on the east side of the road immediately to the north of the railway level crossing. The proposed realignment will be centred on the existing roadway except for a c.570m section at the mid-point, where the road will extend c.20m to the east of the existing road. The proposed realignment works will terminate approx. 20m to the north of the railway line. The recorded location of a lime kiln (CO076-018--) is c.30m to the southwest of the southern end of the road realignment. No potential unrecorded archaeological features were noted within the environs of the proposed road route on the consulted aerial images or historic maps.

The proposed realignment will encroach upon two fields to the east of the existing road. The northernmost of these (Field 1) is shown as eleven separate field plots on the 6-inch OS map and is currently in use as tillage land under low stubble. An approx. 70m long section of the north end of the western field bank forms part of the townland boundary between Water-Rock and Ballyredmond Demesne to the northwest. The proposed realignment will extend north to south through the west end of this field, apart from a section in the northern end where it is centred on the existing road. The ground levels in the southern end of the field are broadly level while a natural east-west orientated, poorly drained dip in the ground surface in the northern half which rises steeply up to the northern end of the field. The roadside boundary in the west side of the field, along Water-Rock Road, comprises a low, tree-lined earthen bank and the overgrown derelict remains of a roadside farmyard, which is present on the 1st edition 6-inch map, survive along the north end of the field. This yard was inaccessible due to the presence of a dumped heap of modern rubbish combined with...
thick overgrowth but a visual assessment indicated that the partially collapsed buildings were of random rubble construction with sections of walls repaired in concrete. The buildings were roofed with now extensively collapsed and corroded corrugated iron sheets. The yard is outside the area of the field to be impacted by the proposed realignment of Water-Rock Road. The southern field (Field 2) boundary also comprises an earthen tree-lined field bank and this was flanked with an approx. 1.5m wide by 1.5m deep ditch on the north side. This had sharply sloping sides and had the appearance of being augmented or recut by machine in recent decades during field drainage works. The proposed route of the link road corridor (see below) extends along the north side of this boundary and then turns to the south in the southeast corner where it crosses the boundary and enters the field to the south (Field 2). The lines of the levelled former field boundaries in Field 1 were noted during a review of available online aerial images. No potential archaeological features were noted on the footprint of the proposed road realignment and link corridor route during the site survey and inspection of the aerial imagery. A potential burnt spread (approx. 10m x 10m) was noted on the aerial images within the northeast corner of the field (ITM 586439, 575076) and this may form the remains of an unrecorded levelled Bronze Age fulacht fia site. It is located c. 300m to the northeast of the proposed Water-Rock Road realignment.

The southern field (Field 2) was in pasture at the time of the site inspection and its sub-rectangular layout is present on the historic OSI maps which show it as a vacant plot. The proposed Water-Rock road realignment will extend into the northwest corner of this field. The ground levels in the west end of the field, including the section in the northwest corner to be impacted by the realignment of Water-Rock Road, are broadly level with a slight downward slope to the south. The boundary with the roadside in this area is formed by a poorly preserved, overgrown, low random-rubble wall.

![Figure 8](image.png)
8. Wastewater Pumping Station

The proposed wastewater pumping station site is located within a tillage field immediately adjacent to the western edge of a recently constructed section of the Midleton northern relief road and to the south of the railway line. There are no recorded archaeological or architectural heritage structures within the environs of this area and the nearest recorded example is a mill site located approx. 760m to the east (CO076-112----). A millrace associated with another mill complex (Avoncore Mill), formerly located 400m to the west, was uncovered during archaeological investigations carried out as part of the construction of the Midleton Northern Relief Road (see Table 4; Licence 06E1165). The Excavations Database entries for the archaeological test trenching and monitoring investigations carried out during the construction of this road do not include any descriptions of the discovery of potential archaeological features within the section adjacent to the proposed pumping station.

The proposed pumping station site is shown within a vacant, sub-rectangular field adjacent to the west side of a now defunct local road on the 6-inch and 25-inch OS maps (Figure 9). The 25-inch map shows this road extending to a level crossing over the railway line in the area to the north. The subject area is also shown as farmland on modern aerial images taken in the periods before and after the construction of the relief road which extends in a NE-SW direction immediately to the east (Figure 10). No traces of potential unrecorded archaeological features within the environs of the pumping station location were noted on the historic maps or aerial photographs.

The surface of the plough soil within the level area of tillage to be impacted by the construction of the pumping station was inspected during the walkover survey and no traces of potential archaeological features, such as charcoal spreads, or artefacts were noted. The former local road on the east side of the field survives as an overgrown, tarmac covered section which extends to the railway fence at north. This will carry the service pipes from the subject area which will extend through an existing service duct under the railway line and connect with services immediately to the north.

Figure 9: Extracts from 6-inch and 25-inch OS maps showing location of pumping station and services (blue)
Figure 10: Aerial images of subject area before and after Northern Relief Road construction
4. Conclusions and Recommendations

There are three recorded archaeological sites within 1km of the subject areas. The nearest example is the former site of a lime kiln (RMP CO076-018----) which is located c.30m southwest of the south end of the Water-Rock road realignment. The other examples are located over 700m from proposed works areas. None of these recorded archaeological sites are on the footprint of the proposed infrastructural works, or within their immediate environs, and will, therefore, not be impacted.

A number of other features of archaeological potential were noted as ephemeral marks on various aerial images within the surrounding study area. These included an irregular dark area of soil measuring c.30m in diameter (ITM 586439, 575076) in Field 1 and very slight traces of a circular feature in an adjacent field (ITM 586636, 574972), two curvilinear cropmarks, both measuring c.40m across (ITM 586016, 575049), a c.100m diameter circular feature within a ploughed field (ITM 586833, 573900), a possible enclosure (ITM 586798, 573643) and an indistinct cluster of features (ITM 586866, 574101). None of these potential archaeological features are on the footprint of the proposed works, or their immediate environs, and will, therefore, not be impacted. Further consideration of these potential archaeological features should be undertaken as part of the assessments of any future developments at their recorded locations.

A linear earthwork known as the 'Claidh Buidhe' (Yellow Ditch) (RMP CO076-092----) is recorded on the southern boundary of Water-Rock townland in an area located 600m to the south of the subject lands. While the earthwork is not recorded as extending into the area of the proposed infrastructure works, the Water-Rock townland boundary does continue northwards through the subject lands where it also forms a barony boundary. The boundary follows the line of a small stream that forms the eastern side of fields 1 and 2 and the western side of field 3. As previously noted, none of the existing field boundaries in the vicinity of the proposed scheme conform to the description of the linear earthwork as a double-banked feature with a raised track surface. Nonetheless the field boundary features on the footprint of the proposed infrastructural works should be investigated during a programme of pre-development archaeological test trenching.

There are no Protected Structures or buildings listed in the NIAH within 600m of the proposed work areas. A U-shaped range of buildings, open to the south, are evident on historic maps in an overgrown area to the east of the proposed railway station location. The very heavily overgrown ruinous remains of a number of these buildings are still extant. None of these buildings were roofed and many of the remaining walls appear to be in danger of collapse in part due to the trees growing throughout their ruins. There will be no impact on this complex of buildings by the proposed Water Rock UEA Infrastructure Works. However if this complex of buildings is to be impacted by future development of the UEA then a pre-development survey is recommended. This would involve supervised removal of vegetation (to facilitate access and recording) and a detailed Level 3 Building Survey of the ruins should be undertaken in order to compile a full record of the extant structures in written, drawn and photographic formats.

A pre-development programme of geophysical survey of the accessible green field areas of the development (i.e. realignment of the Water Rock road, on the proposed line of the new link corridor, pumping station, the railway station and crossing) will be required to assist in the identification of any hitherto unknown sub-surface archaeological remains.

A programme of pre-development archaeological testing on any geophysical anomalies identified as being of archaeological potential will be required to establish their nature and extent.
A programme of pre-development archaeological testing will be required in any areas where geophysical survey is not feasible due to overgrowth or other restrictive ground conditions.

A programme of licenced archaeological monitoring will be required during topsoil stripping for the works for the proposed water drainage, where these cross though green field areas, and in any areas where pre-development archaeological testing is not feasible.

The overgrown, sunken, stone-lined trackway between Fields 3 and 4 is interpreted as being of local cultural heritage significance and is worthy of recording. A record of this feature in written, drawn and photographic formats should be carried out once the vegetation overgrowth has been removed during the construction phase.

The overgrown derelict remains of a roadside farmyard within Field 1 should also be recorded in written, drawn and photographic formats.
5. References


Websites consulted
http://gis.teagasc.ie/soils/map.php (Soil)
http://map.geohive.ie/mapviewer.html
http://maps.osi.ie/publicviewer/#V2,591271,743300,1,10 (Maps)
http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple (Bedrock)
http://www.archaeology.ie
http://www.excavations.ie
http://www.logainm.ie
Appendix I: Extracts from Photographic Record

1. New corridor link road

Plate 1 View of southern end of west side of Field 1 from north

Plate 2 View of proposed link route in east end of Field 2 (boundary with Field 1 in background)
Plate 3 View of area of proposed link road from northwest of Field 3

Plate 4 View of trackway from north to west of Fields 4 & 5
Plate 5 View of modern spoil heaps in southeast corner of Field 4 with area of marginal pasture in foreground

Plate 6 Northern portion of Field 5, looking north
Plate 7 Field 6, looking west

Plate 8 Area 7, looking south
Plate 9 Field 8, looking north

Plate 10 Field 9, looking southeast
2. Water drainage Route

Plate 11 Western end of proposed water drainage, to the north side of railway, looking west
3. Junction upgrade

Plate 12 Site of Junction, looking southeast
4. Water Rock road traffic management

Plate 13 Site of junction to be subject to road traffic management
5 & 6. Site of the proposed railway station, bridge and access road

Plate 14 Looking north along the line of the proposed road towards site of proposed bridge

Plate 15 Site of proposed railway station, looking east
Plate 16 Looking south along the line of the proposed road towards site of proposed bridge
7. Re-alignment of Water Rock road

Plate 17 View of northern end of west side of Field 1 from south

Plate 18 View of derelict farmyard in Field 1 from north (located outside footprint of scheme)
Plate 19 View of proposed road realignment area in northwest corner of Field 2 from south

Plate 20 View towards Limekiln CO76-018---- from northeast
8. Pumping Station

Plate 21 View of proposed pump station from south

Plate 22 View of route of services along former road from south