

TOBIN

CONSULTING ENGINEERS

BUILT ON KNOWLEDGE



Substitute Consent Application

John Madden & Sons Ltd

Ballysheedy Quarry

NON TECHNICAL SUMMARY



Ballysheedy – Non Technical Summary

NTS

Document Control Sheet	
Document Reference	NTS
Report Status	Final
Report Date	June 2022
Current Revision	A01
Client:	John Madden & Sons
Client Address:	Kilmaine, Co. Mayo
Project Number	10925

Galway Office Fairgreen House, Fairgreen Road, Galway, H91 AXK8, Ireland. Tel: +353 (0)91 565 211	Dublin Office Block 10-4, Blanchardstown Corporate Park, Dublin 15, D15 X98N, Ireland. Tel: +353 (0)1 803 0406	Castlebar Office Market Square, Castlebar, Mayo, F23 Y427, Ireland. Tel: +353 (0)94 902 1401
---	--	--

Revision	Description	Author:	Date	Reviewed By:	Date	Authorised by:	Date
A	Issue	SC	07/06/22	JD	07/06/22	DMG	07/06/22

TOBIN Consulting Engineers

Disclaimer

This Document is Copyright of TOBIN Consulting Engineers Limited. This document and its contents have been prepared for the sole use of our Client. No liability is accepted by TOBIN Consulting Engineers Limited for the use of this report, or its contents for any other use than for which it was prepared.



Table of Contents

1	INTRODUCTION.....	1
1.1	SITE BACKGROUND	1
1.2	BACKGROUND TO REMEDIAL EIAR	3
1.3	NEED FOR THE DEVELOPMENT	4
1.4	PROCEDURE AND STRUCTURE OF ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR)	4
2	DESCRIPTION OF THE EXISTING SITE AND DEVELOPMENT TO DATE.....	12
2.1	EXISTING ENVIRONMENT AND INFRASTRUCTURE	12
3	ALTERNATIVES	12
4	PLANNING.....	12
5	HUMAN HEALTH AND POPULATION	13
6	BIODIVERSITY.....	15
7	SOILS AND GEOLOGY	16
8	WATER.....	17
9	CLIMATE.....	19
10	AIR QUALITY	20
11	ARCHAEOLOGY/CULTURAL HERITAGE	20
12	NOISE & VIBRATION.....	21
13	LANDSCAPE AND VISUAL.....	22
14	TRAFFIC.....	23
15	INTERACTION OF THE FOREGOING.....	24

Figure 1-1 Regional Site Location Map 10

Figure 1-2 Site Location Map 11

1 INTRODUCTION

1.1 Site Background

Ballysheedy Quarry is located within the townland of Ballysheedy, Gort, Co. Galway approximately 2.5km south west of Gort, Co. Galway. The dormant quarry is located 1km to the west of the M18 road (the Limerick-Athenry motorway).

The location of the site in relation to its geographic surrounds is shown on Figure 1.1 'Regional Site Location Map'.

Ballysheedy Quarry is a limestone quarry owned by John Madden & Sons Ltd. The quarry was operated by Higgins (1994 – 2000) and Goode Concrete (2000 to 2012). The overall quarry in Madden ownership is approximately 12.69ha in area and the operations on the site include three previous permissions for limestone extraction. There are also administration offices, toilets, weighbridge, wheelwash and reception office outside of the application area, to the east of overall quarry. The Substitute consent (SC) area (8.78 ha.) is in the ownership of John Madden & Sons Ltd as well as part of the granted quarry to the east (total 12.69ha).

The quarry has been in operation since the 1994 and was granted planning permission by Galway County Council in 1994. There have been a number of planning permissions for additional quarrying activities and operations at this location since 1994. These are detailed in the Planning Section of this remedial Environmental Impact Assessment Report (rEIAR). The quarry was registered under Section 261 of the Planning & Development Act 2000; Reference QY /46.

A full set of application drawings is included at Appendix 1.1. Drawing No's. 10925-3000 to 10925-3004, enclosed, include the subject area for the leave to apply for substitute consent. This former extraction area is approximately 8.33ha as previously set aside prior to the applicant's purchase and which remains set aside. There is an additional 0.45ha limestone reserve area included bringing the total substitute consent subject site area to 8.78ha as highlighted on Drawing No. 10925-3001. Currently there is no activity on the site.

Part of the substitute consent area was granted under the 1994 application (Pl. Ref. No. 70238), Section 261 Registration (Ref No. QY 46) and Pl. Ref. No. 09/415. A planning permission was sought and granted for a quarry extension to the east of the substitute consent area in 2009, Pl. Ref. no. 09/415. The subject site includes part of this previously permitted area. The boundary of the substitute consent area includes part of 09/415 to provide a suitable buffer for site regeneration.

An application for planning permission was sought and granted for a quarry extension and intensification in 2009. An additional access, the eastern access track, was granted directly to the M18 road construction site PL09/415. The 2009 quarry extension application proposed to revert to the southern access (L8500) following completion of the M18. In

2015, an extension of time to the 09/415 planning permission was sought and granted under PI Ref 15/724. Issues in relation to the site entrance onto the local road did not arise at the time. Extraction volumes returned to the pre 2009 planning permission/Section 261 limits. Limited extraction within the 09/415 boundary and traffic movements has occurred since the purchase of the site in 2014.

The materials extracted from the existing quarry were used for construction schemes and ongoing maintenance and improvement of the road network. The quarry provided significant employment, both directly and indirectly, in the locality and wider region.



Photo 1 - View of western quarry face



Photo 2- View across quarry looking south

1.2 Background to Remedial EIAR

This remedial Environmental Impact Assessment Report (rEIAR) has been prepared as part of a Substitute Consent application under Section 177 of the Planning and Development Acts 2000 as amended. This remedial EIAR is accompanied by a remedial Natura Impact Statement (rNIS).

A Substitute Consent application is required to assess any potential impacts, including cumulative impacts, that previous quarrying operations within lands at Ballysheedy Quarry may have had on the local and regional environment after both the Environmental Impact Assessment Directive and the Habitats Directive came into effect.

The Ballysheedy Quarry development entails quarrying works within an overall landholding of approximately 12.69ha. Figure 1.2 'Site Layout Plan' includes a site layout plan for Ballysheedy Quarry and highlights the area that was granted planning in 1994 and the worked quarry area outside that planning boundary that has been identified by Galway Co. Co. as the subject of this Substitute Consent application. This area, referred to as the "Substitute Consent" application area is approximately 8.78ha.

This remedial EIAR and accompanying remedial NIS aims to assess the impact, if any, that these additional works have had on the environment at, and surrounding, Ballysheedy

Quarry. In particular, special attention is paid to the potential impacts of the development on nearby proposed Natural Heritage Areas (pNHA) and relevant Natura 2000 sites.

1.3 Need for the development

The substitute consent application for some 8.78 ha of the 12.69 ha former quarry site is being proposed to regularise the site. Due to the liquidation of the previous operator of the quarry (i.e., Goode Concrete Ltd.) the land was purchased by John Madden & Sons Ltd. Based on pre planning meetings with Galway Co. Co., and a grant of leave by An Bord Pleanala granting the same, there is a requirement for Substitute Consent at the site. The site will be allowed to regenerate and rewild naturally.

1.4 Procedure and Structure of Environmental Impact Assessment Report (EIAR)

The consequences of any major project are generally presented in the form of an Environmental Impact Assessment Report (EIAR). This Remedial EIAR contains information on the scale and nature of the development at Ballysheedy Quarry, a description of the existing environment, potential impacts that may have arisen as a result of the development at this location and an assessment of the impact and mitigation measures that have been implemented to protect the receiving environment.

The structure and content of the EIAR has been based on the following documents, as published by the Environmental Protection Agency:

- Advice Notes on Current Practice in the preparation of Environmental Impact Statements (2003); and
- Guidelines on the information to be contained in Environmental Impact Statements (2002, 2017 & 2022).

This Remedial EIAR provides for:

- A description of the site and the existing environment;
- A description of the development;
- The impacts, if any, that may have resulted from the development;
- An assessment of the impact and the mitigation measures; and
- A non-technical summary.

The minimum information that must be contained in an EIAR is specified in Part X of the Planning and Development Act, 2000 and Schedule 6 of the Planning and Development Regulations, 2001. The structure and content of this EIAR has been based on the legislative requirements as set out in Part X of the Planning and Development Act, 2000 and Part 10 of the Planning and Development Regulations, 2001 and the guidance documents by the Environmental Protection Agency as outlined above.

The overall EIAR is arranged in three volumes, as follows:

- Volume I: Non Technical Summary;
- Volume II: Environmental Impact Assessment Report; and
- Volume III: Appendices.

Volume I: Non-Technical Summary

This document provides an overview and summary of the main EIAR using non-technical terminology. It is a means for non-professionals to review the information included in the main EIAR document. It is a stand-alone document and should offer a concise summary of the existing environment, characteristics of the development and any impact that the development may have had on the receiving environment.

Volume II: Main EIAR

Volume II of the EIAR contains the main text body and is divided into a number of chapters. Chapters 1 and 2 include an overall Introduction and Description of the Site and the Development. The specialist chapters (Chapters 3 to 12) include:

Section 1: Introduction;

Section 2: Description of Site and Existing Environment;

Section 3: Potential Impacts from the Development (*Possible Impacts from Previous Works*); and

Section 4: An Assessment of the Impacts and the Mitigation Measures.

Figure 1-1 Regional Site Location Map

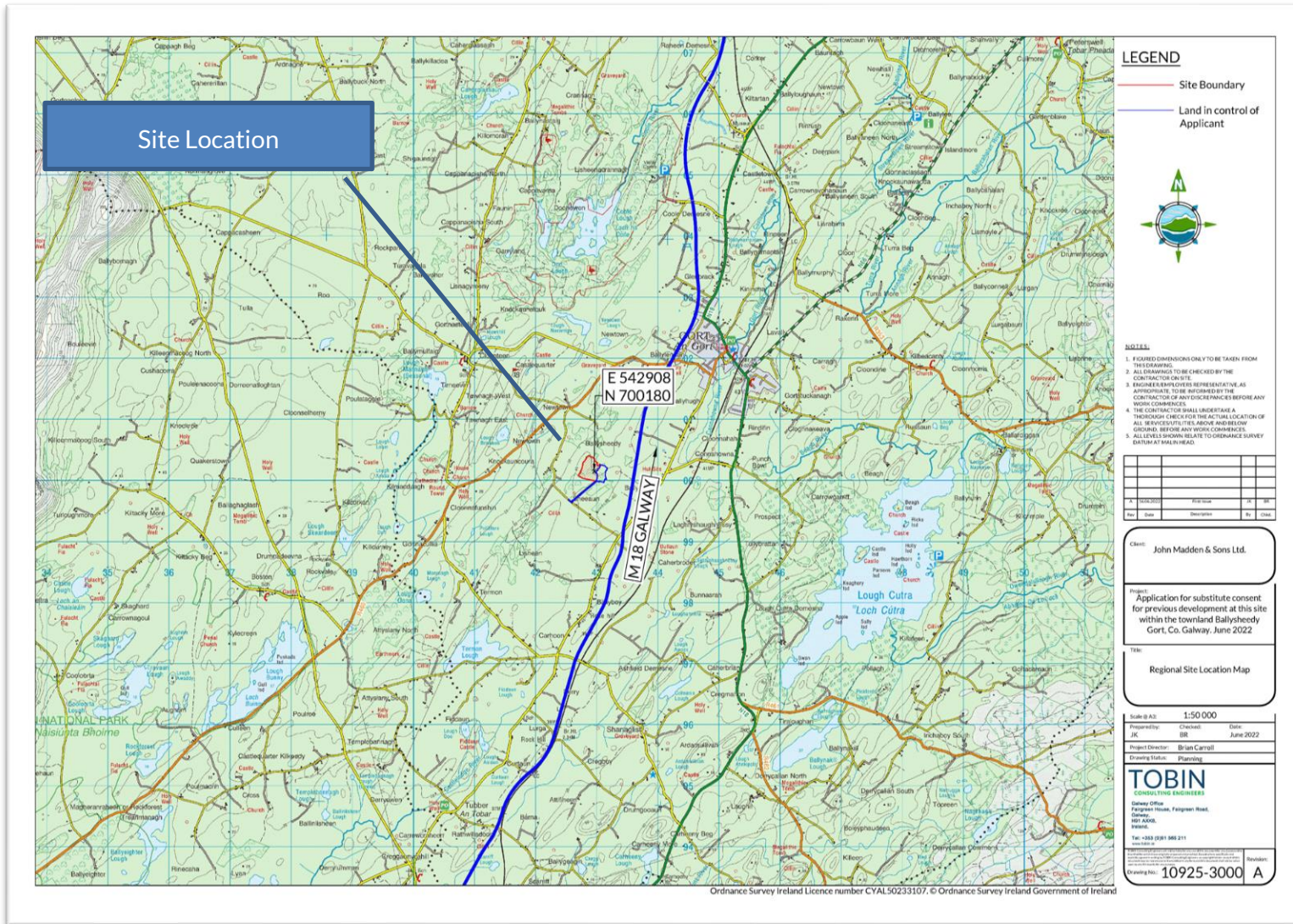
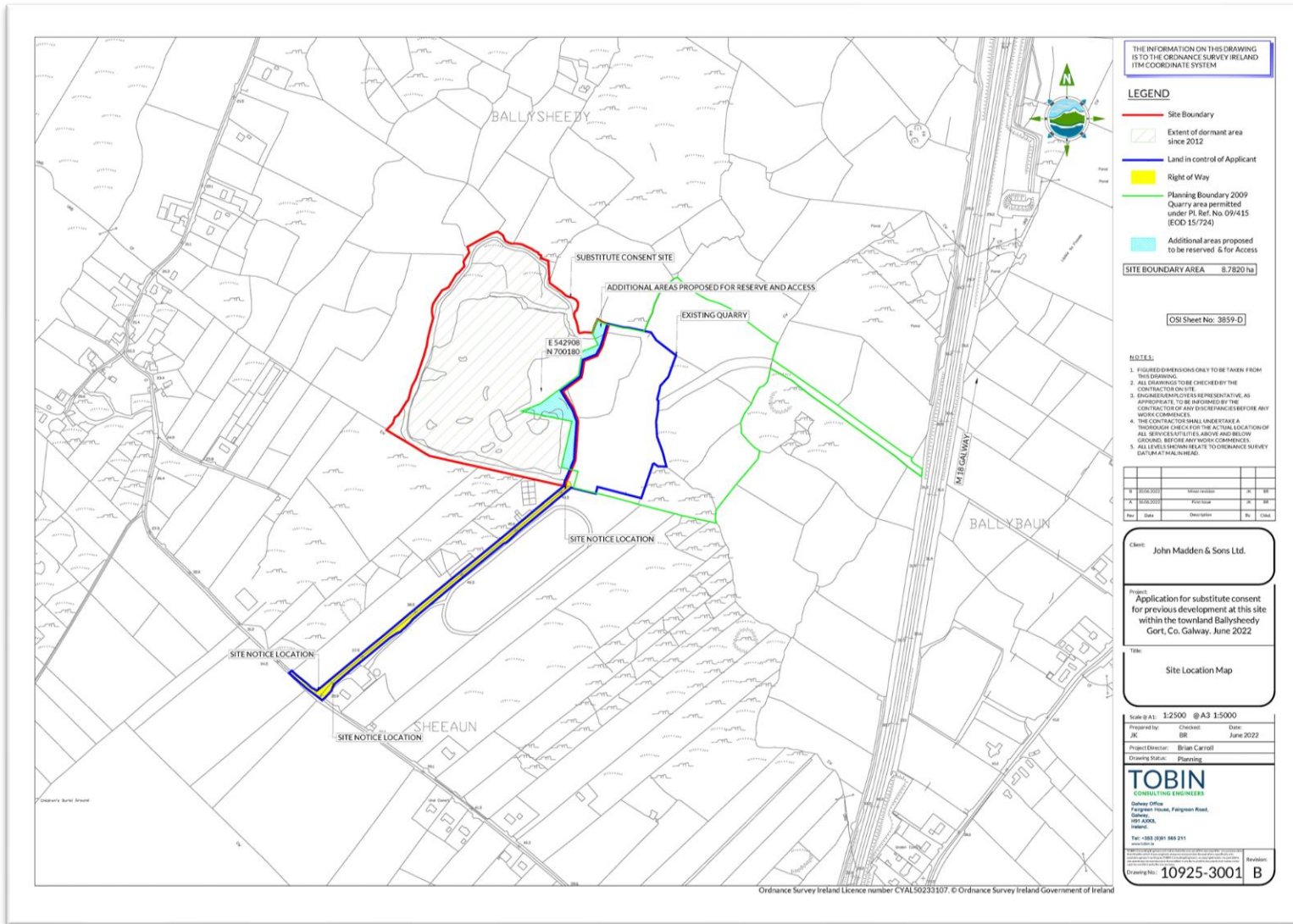


Figure 1-2 Site Location Map



2 DESCRIPTION OF THE EXISTING SITE AND DEVELOPMENT TO DATE

2.1 Existing Environment and Infrastructure

The site is located approximately 2.8km southeast of the village of Gort, Co. Galway. The existing quarry, for which permission for the extraction of aggregate has been granted by Galway County Council (Planning Ref.: 09/415), is dormant.

There are 14 residential properties located within a 0.5km radius of Ballysheedy Quarry. These properties are located along local roads to the west, north and south of the quarry boundary. There are also a number of farm buildings in the vicinity of Ballysheedy Quarry which would be expected as this is a primarily agricultural area.

The quarry is located within the Galway Bay South East Catchment. The quarry development entails 2 dormant quarrying works areas within an overall landholding of approximately 12.69 ha. As outlined in Chapter 1 above, the first area of the quarry was extended pre 2012 beyond the boundary of the area then permitted. The second area (“the existing quarry”) operated as permitted by the final Planning Permissions of 09/415 and 15/724 until the later permission expired. The first area is referred to as the “Substitute Consent” application area.

The topography of the site varies from 26mOD at the lowest point of the quarry (near the centre of the extraction area) to the highest point of the quarry near the southern boundary of the site (approximately 44mOD). The entrance of the quarry is at approximately 34mOD.

Infrastructure associated with the dormant limestone quarry comprises landscaped earthen berms surrounding most of the dormant quarrying area, offices and associated canteen facilities and a weighbridge. The field boundaries are comprised of a mixture of hedgerows and fencing.

3 ALTERNATIVES

The remedial nature of the rEIAR and the parameters of the Substitute Consent removes the potential to consider either design or locational alternatives. The Substitute Consent is site-specific and therefore provides no potential alternatives. It is considered that the information provided in the accompanying rEIAR, demonstrates compliance with the requirements of the EIA Directive, regarding alternatives, as transposed into Irish Planning law.

4 PLANNING

Part of the substitute consent area was granted under the 1994 application (Pl. Ref. No. 70238), Section 261 Registration (Ref No. QY 46) and Pl. Ref. No. 09/415 as extended under Pl. Ref. 15/724. A planning permission was sought in 2009 and granted in 2010 for a quarry extension to the east of the substitute consent area, Pl. Ref. No. 09/415. The subject site includes part of Pl. Ref. 09/415 to provide a suitable buffer for site regeneration and to allow access for the

maintenance of the lower ground areas of subject site.

A full set of application drawings is included at Appendix A. Drawing No's. 10925-3000 to 10925-3004, enclosed, include the subject area for the leave to apply for substitute consent. This subject area is approximately 8.78ha of largely dormant quarry since prior to the applicant's purchase with some stockpiling areas and which are now also dormant. The additional 0.45ha dormant area included from the more recent planning permission area brings the total substitute consent subject site area to 8.78ha as highlighted on Drawing No. 10925-3001. Currently there is no activity on the site.

The planning history of the quarry and leave to apply application demonstrate the need to apply substitute consent to Ballysheedy Quarry. Expansion of the quarry took place that was not subject to assessment under the EIA Directive or Habitats Directive. Substitute consent, if granted, will authenticate the status of Ballysheedy Quarry and regularise quarrying activity in accordance with the Planning and Development Act 2000 (as amended). The quarry operated to date in a sustainable and environmentally sound manner with due regard to the local community consistent with both the company's own Environmental Management System.

This chapter demonstrates that Ballysheedy Quarry is consistent with aims and objectives of local and national policy including Galway County Development Plan, the National Spatial Strategy 2002-2020 and the NDP2040. Ballysheedy Quarry has been an integral part of the growth of the region to date.

5 HUMAN HEALTH AND POPULATION

Human beings and their socio-economic environment are an essential element in the EIA process. Quality of life must not be degraded as a result of a development and both the short and longer term impacts on the local population must therefore be addressed at this stage. The purpose of this chapter is to examine the socio-economic conditions in the area surrounding Ballysheedy Quarry, County Galway.

Direct and Indirect employment was generated as a result of the quarrying and aggregate production, in terms of contract aggregate transport drivers, suppliers of products and services, such as fuel and oil suppliers, machinery suppliers, etc.

This chapter has examined the prevailing socio-economic environment pertaining to Ballysheedy Quarry. The population, employment and tourism and amenity context show that there has been and continues to be a need for jobs and investment in the local area. The quarry supported not only the local economy but contributed substantially to the M18 construction and other public works. A quarry development must not harm the local landscape, environment or residential amenities, as specified in the Regional Planning Guidelines, Galway County Development Plan and Gort Development Plan among other policy documents.

With regard to the local community the operation of the quarry did not have a negative impact on any tourism and amenity sites and will have assisted in boosting local employment figures at a time of record unemployment levels (2008 – 2010) while simultaneously aiding the economic recovery of the West region, with spin-off benefits to the local community in particular and wider assistance to the Irish economy in general.

6 BIODIVERSITY

There are no sites designated under the EU Habitats Directive and EU Birds Directive, i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) located within the footprint of the Ballysheedy Quarry development. In addition, the landholding (including Substitute Consent application area) is not located within a nationally designated sites (Natural Heritage Areas) or proposed Natural Heritage Areas (pNHA). Nearby sites of conservation interest includes Termon Lough SAC, Coole Garryland Complex SAC and East Burren Complex SAC.

A Natura Impact Statement (as per EU Habitat Directive requirements) was completed and the report is included with the application. No significant impact on Environmental Designations in the area was identified in the previous planning permissions for quarrying at this location.

Breeding Peregrine Falcons are the key ecological receptors which use the Substitute Consent application area. These are known by the quarry owner and left to breed in an undisturbed state both during quarry activities and since activity ceased.

In general, the habitats present at Ballysheedy Quarry depend on current management activity and disturbed habitats of low ecological value. One key ecological receptor created as a result of quarrying will be retained. This is the quarry faces used by peregrine falcons.

The quarry allows retention of a number of locally important ecological features including ponds and woodland/scrub in particular in the area north of the site. The Substitute consent site will be allowed to naturally regenerate.

No significant adverse ecological impacts are evident from works to date within the Substitute Consent application area at Ballysheedy Quarry

7 SOILS AND GEOLOGY

Due to the nature of quarrying, there is limited overburden remaining in the worked areas of the quarry, including the Substitute Consent application area. Quarrying, requires the excavation and removal of the limestone deposit, thereby producing a permanent impact on the local bedrock environment within the footprint of the quarry.

The bedrock is identified as medium thick bedded pure limestone. GSI mapping shows that the limestone formations are significant in their lateral extents around the site. The SC application area covers just 8.78ha, within mineral extraction contained to localised areas within the site. Given the scale of operations which have taken place at the quarry over the SC period, the removal of the rock is not considered to have resulted in a significant effect upon the bedrock geology as a whole. Given that mineral extraction operations have ceased, no impacts upon the soils and geology are currently being experienced nor are they likely to occur in the future with the SC process unable to grant permission for future development.

Based on the good water quality in the flooded quarry there is no potential for significant impacts on the groundwater. Furthermore, there is very limited connectivity with the regional groundwater quality due to the limited variation in water levels with the void.

In summary, there have been no significant alterations to the local and regional environment as a result of works within the application area.

8 WATER

On a regional scale, Ballysheedy Quarry and its environs are located within the Galway Bay South East Catchment (Hydrometric Area 29). The nearest surface water features to the site include:

- Coole/Newtown Lough - 2km north of the site boundary
- Drumminacloghaun Stream - located approximately 1km west and northwest of the site boundary
- Termon Lough - located approximately 1.1km south of the site boundary
- The Gort/Beagh River - located approximately 1.5km east of the site boundary (and a tributary of Lough Coole).

Within the quarry, a flooded area which occupies the floor of the quarry. As a result, any rainfall that falls on the quarried site either recharges the bedrock aquifer or evaporates. The majority of the former quarry area comprises surface water ponding on the flooded quarry floor. No significant variation occurs between summer and winter months in the flood pit. The lack of variation in water levels does not indicate that the quarry is connected to the regional water table. No flooding has occurred to the east of the substitute consent area.



Surface water quality monitoring was conducted at Ballysheedy Quarry. Concentrations from the results of the sample analysis appear to be consistent with natural uncontaminated surface waters including high water clarity and low levels of suspended solids.

Based on observations and records to date at Ballysheedy Quarry and a review of the results of environmental monitoring and water clarity, there has been no significant impact on the local and/or regional water environment in this area as a result of works to date at this location.

The mitigation measures have significantly ameliorated the risk to the water environment during the operations at Ballysheedy Quarry and, as demonstrated, any impact on the local and regional water environment has been negligible.

9 CLIMATE

Ireland is party to both the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The Paris Agreement, which entered into force in 2016, is an important milestone in terms of international climate change agreements and includes an aim of limiting global temperature increases to no more than 2°C above pre-industrial levels with efforts to limit this rise to 1.5°C. The aim is to limit global Greenhouse Gas (GHG) emissions to 40 gigatonnes as soon as possible whilst acknowledging that peaking of GHG emissions will take longer for developing countries. Contributions to GHG emissions will be based on Intended Nationally Determined Contributions (INDCs) which will form the foundation for climate action post 2020. Significant progress was also made in the Paris Agreement on elevating adaption onto the same level as action to cut and curb emissions.

On a local, regional and global scale, the climate has not been altered by the activities of the quarry. The quarrying industry is not a significant industrial generator of greenhouse gases. There has been no net contribution to greenhouse gas emissions. Therefore, this industry is not impacted by the limits of greenhouse emissions under the Kyoto protocol.

The quarry site has not created any temperature inversions, altered any current wind circulation patterns nor affected the sunshine or any other climatic factors in the area beyond the site boundaries of the quarry.

10 AIR QUALITY

All developments, including quarries, have the potential to adversely affect air quality within the surrounding area. Currently in Ireland there are no statutory limits for dust deposition from quarry developments. However, in recent years, the TA Luft/VDI 2119/Bergerhoff Method of dust emission monitoring has become the most commonly used method. This method involves using a direct collection pot to standardised dimensions of either glass or plastic. The system benefits from being a direct collection method i.e. less transferring of material and consequent reduction in sampling errors. This method is defined as an internationally recognised standard and has been adopted by the Environmental Protection Agency (EPA) as the method of choice for licensed facilities.

Conditions, as imposed by Galway County Council on the operation of Ballysheedy Quarry in Gort, Co. Galway under S.261 of the Planning and Development Act, 2000 (as amended) also specifies a dust deposition limit of 350 milligram per square metre per day. No significant dust issues arose from the quarrying due to the distance to the nearest sensitive receptors.

11 ARCHAEOLOGY/CULTURAL HERITAGE

The primary issue with regards to archaeology concerns a recorded monument, a cashel (RMP No. GA128-021), which was located within the site area but which is no longer extant.

The proposed development site is a disused quarry, first opened in 1994 and which has not been in operation since 2020.

No features of archaeological significance were in evidence within or in the immediate vicinity of the proposed development site during the field walking. One known recorded monument, a cashel (RMP No. GA128-021), was located within the proposed development site, of which no surface trace survives. Martin Fitzpatrick's description from 2005 shows that only a portion of the monument survived at that time. That portion, of the monument, was not evident in 2014. The field walking of the proposed development site revealed no further features of archaeological significance.

12 NOISE & VIBRATION

This noise study was undertaken so as to characterise the historical noise climate and possible impact that activities at Ballysheedy Quarry have had on the local and regional environment.

The maximum predicted noise levels associated with the operation of the quarry without the influence of non-site related noise sources does not exceed the EPA, ICF and DOHLG recommended daytime noise limit therefore no adverse impacts on the noise environment in the vicinity of the site are predicted to arise.

A comprehensive assessment of the potential historical noise and blasting impacts associated with Ballysheedy Quarry has been completed. As the results of the historical noise and blast monitoring events at the nearest sensitive receptors outside the landownership boundary reported no exceedance of the thresholds associated with operational activities at Ballysheedy Quarry, no further mitigation measures are proposed in relation to noise and blasting at Ballysheedy Quarry.

It was concluded from the assessment that the intervening distance between the nearest residences and the quarry blasting operations was adequate to allow them to be carried out successfully while at the same time keeping the environment emissions within guidance levels. It is concluded that if the recommendations outlined in the assessment with respect to blast design parameters are implemented, the levels of ground vibration produced were unlikely to cause even minimal cosmetic damage to the adjacent properties, and the risk of flyrock was negligible.

13 LANDSCAPE AND VISUAL

Landscape assessment relates to changes in the physical environment, brought about by a proposed development, which may alter its character. This requires a detailed analysis of the individual elements and characteristics of a landscape that go together to make up the overall character of that area. By understanding the aspects that contribute to this character it is possible to make judgements in relation to its quality (integrity) and to identify key sensitivities. This, in turn, provides a measure of how the landscape in question accommodated the type and scale of change associated with the project and to consider whether the project caused unacceptable adverse changes to its character.

Visual Impact Assessment relates to changes in the composition of views as a result of changes to the landscape, how these are perceived and the effects on visual amenity. Such impacts are population-based, rather than resource-based, as is the case of landscape impacts.

A description of the mitigation measures envisaged and/or used to avoid, prevent, reduce or, if possible offset any identified significant adverse effects on the environment and where appropriate, of any monitoring arrangements, are then discussed. Due to the retrospective nature of the assessment, this chapter will focus on existing or pre-existing measures used in order to mitigate the likely significant effects of historic extraction. Any residual effects are also assessed.

Due to the intervening vegetation, undulating topography within the study area and the topography of the site itself, the exposed quarry face can only be seen from some locations within 3.5km to the north and within 2.5km to the east and south of the site. Visibility at distances beyond 2.5km would depend highly on weather conditions. Intervening vegetation and topography screen views from any other direction.

The Ballysheedy Quarry is screened from views from most directions due to the intervening vegetation and continued scrub regeneration onsite. Removal of all not vegetated aggregate stockpiles would further minimise residual landscape and visual impact.

14 TRAFFIC

Ballysheedy Quarry is located in the rural hinterland of Gort, approximately 2.8km northwest of the nearest suburb in the townland of Ballysheedy.

The existing access to the quarry is from a local road to the south. An access track directly to the M18 construction site was utilised for the majority of traffic and did not require the use of local roads.

Access into the quarry is via a large, recessed access that can accommodate heavy vehicles leaving and entering the quarry simultaneously. The majority of material excavated at the site did not utilise the existing entrance and therefore limited the potential for impact on the local road. Most material was utilised using a dedicated access track to the M18 construction. Road maintenance works resulting from this contribution would have mitigated against damage caused by traffic generated by the quarry. In addition, the entrance was realigned and resurfaced sections of the entrance over the lifetime of operations at this location.

The operator cleaned, when necessary, any dirt and debris from any road surfaces soiled as a result of spillage due to haulage to and from the site, in order to minimise public nuisance.

Parking is provided within the site to ensure vehicles associated with the site are not parking on the public road, causing hazardous obstructions.

The quarrying of materials from the Ballysheedy Quarry will have resulted in an average increase of approximately 2 heavy vehicles per hour on the public road network on average. This would have resulted in a minor to negligible impact on traffic capacity on the surrounding road network and a slight impact on the pavement conditions of roads used to transport materials from the quarry. A contribution was made in relation to road maintenance, as well as realignment and resurfacing works on the L8500, that would have mitigated the impacts that heavy vehicles generated by the quarry may have caused.

Based on a review of accident history at the entrance to the quarry, it has been determined that the entrance has been and continues to operate safely and without incident.

15 INTERACTION OF THE FOREGOING

This Remedial Environmental Impact Assessment Report (rEIAR) has been prepared by TOBIN on behalf of John Madden & Sons Ltd.. and accompanies a Substitute Consent planning application to An Bord Pleanála for an existing quarry in the townlands of Ballysheedy and Sheeaun , Gort, Co. Galway.

The potential environmental impacts of previous works at this location, including an assessment of the impact of historical works on the past, current and future environment have been outlined in this report. This section discusses the potential for interaction between impacts of the different environmental aspects.

Human Beings/Socio Economic/Dust/Noise

Human Beings will interact with other environmental aspects given the nature of the extractive industry.

Adverse impacts that may have been associated with noise and vehicular disturbance during quarrying operations within the Substitute Consent application area are likely to have been slight as the adjacent permitted area was already subject to these disturbances. Best practice management systems were implemented during overburden stripping of the application area to fully comply with all relevant surface water pollution prevention legislation and thus avoid impacts to surface and groundwater drainage systems.

Noise and dust control were in accordance with strict EPA guidelines and John Madden & Sons Ltd.. implemented various best practice methods to ensure that any impacts were negligible.

Social and travel patterns, pedestrian or otherwise, were not disrupted by the works within the application area as no roads or pedestrian ways were altered.

The operations within the site generated employment either directly in the extraction of material or through haulage of materials to end destinations.

Flora and Fauna

Local wetlands and downstream SPAs and SACs were protected by implementation of various mitigation measures to ensure that there was no contamination or impact on the local surface water or groundwater environment and the associated ecological environment as a result of activities within the application area.

Dust and noise impacts on adjacent habitats and fauna were minor as dust and noise controls were implemented in accordance with EPA Guidelines. In addition, the impact on local fauna would have been slight as the adjacent permitted area was already subject to these

disturbances and species were already utilising relatively disturbed zones.

Soils/Geology and Hydrogeology

All overburden was managed on site according to best practice. This mitigated against any adverse effects on the local environment. There was no significant alteration to the natural geological conditions within the surrounding lands as a result of activities within the application area.

Water

Mitigation measures were implemented to ensure that there was no contamination or impact on the surface water, groundwater and the associated ecological environment as a result of water runoff from the site.

The groundwater environment in the vicinity of the quarry was not significantly impacted by the development, as there was no significant impact on the water table as a result of works in the application area. There has been no record of adverse effect on groundwater levels or areas outside the property boundary of Ballysheedy Quarry.

Air Quality and Climate

Works within the application area have had no effect on the microclimate in the immediate vicinity of the site or surrounding area.

Dust suppression and site management mitigated against the impact of windblown dust around the site and to nearby dwellings. These measures reduced the impact on human beings and material assets in the community.

Noise and Vibration

Noise and Blasting Vibration would have emanated from the working of machinery and activities associated with the operations within the application area. However, site activities were effectively managed to ensure that all potential noise and vibration impacts were minimised to acceptable levels at nearest sensitive receptors.

Landscape & Visual Assessment

A number of landscape & visual impacts interact with both the local human population, and flora and fauna as detailed above. The site will be allowed to revegetation naturally.

Cultural Heritage & Archaeology

There are no items of cultural heritage, archaeological sites, monuments or artefacts or designated or undesignated structures known or recorded within the application area.

Traffic

Traffic generated from the site did not have a significant impact on traffic on the L8500. The volume of traffic from Ballysheedy Quarry would have resulted in a minor to negligible

impact on traffic capacity on the surrounding road network which would not have impacted on the use of the L8500 by local residents and/or passers-by.

While there was potential for the above parameters to interact and result in a cumulative impact, it has been demonstrated within this remedial EIAR (and associated rNIS) that none of these cumulative impacts resulted in significant environmental degradation. The mitigation measures implemented at Ballysheedy Quarry were designed to ameliorate the impact of the works within the application area and the overall site on the wider environment.