An Bord Pleanála



Inspector's Report

Development : Further quarry development, Slatequarries, Rathmore, Naas, Co.Kildare

Application Type : Further Quarry Development under Section 37L

Related Substitute Consent file: SU09.SU0103

Applicants: Patrick & Thomas Cullen

Observer(s) : None

Planning Authority : Kildare County Council

Inspector: Pauline Fitzpatrick

Date of Inspection: 14/04/16

Appendices

- 1. Photographs
- 2. Extracts from Kildare County Development Plan, 2011

1.0 INTRODUCTION

1.1 The current application for further quarry development was received by the Board on the 16th December 2015 following the enactment of Section 37L of the Planning and Development Act, 2000, as amended. This application is related to file ref. SU09.SU0103, application for substitute consent lodged by the application on the 26th June 2014 accompanied by a remedial EIS.

2.0 SITE LOCATION AND DESCRIPTION

- 2.1 The subject site is located in an upland area in the townland of Slatequarries, County Kildare, about 4km north of Blessington. The east/north-eastern boundary forms the border with County Wicklow. The site is accessed from local road L6030 which runs from Kilteel to the N81. There are a number of dwellings located along the road with the nearest being c. 30 metres to the east.
- 2.2 The land rises steeply from the road north-eastwards to a ridge running in a northeast/southwest direction which continues northwards as Cupidstown Hill 380.39m (1248ft) and Saggart Hill 398m (1308ft), some distance away. The subject site extends to the ridge line and is elevated with views to the south and east over Blessington and the lakes. The site adjoins another large quarry (Stresslite QV0130) to the south-east with Frank Murphy Block Manufacturing further south again. A closed quarry was also noted on the opposite side of the road. The quarry is associated with a narrow geological formation of slate and greywackes which runs northeast to southwest known as the Slate Quarries Formation.
- 2.3 The site is narrower along the frontage to the public road and widens out behind residential properties which are along the road to the south-west. Its longer axis runs from the road in a south-west / north-east direction.
- 2.4 The site as delineated by the red line on the site location map accompanying the application can be divided into two distinct areas: an operational quarry and agricultural land. The quarry area occupies most of the site nearest the public road, with extraction progressing away from the road. Where the site extends behind residential properties, there is an area of grass, beyond which a high mound of quarry material is aligned roughly parallel to the public road. This feature screens the quarry excavations, but is itself visible in the landscape as a man-made feature. Along the north western side of the quarry, which follows and is close to the line of the site boundary, there is a high quarry face. The operational quarry extends north-eastwards from the

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road for a distance of approx. 450 metres. The rest of the site included within the red line on the maps accompanying the application, comprising of eight roughly rectangular fields, is in agricultural use as pasture. The field boundaries are delineated by hedgerows. At a couple of locations, evidence of former excavation for sand, can be seen as small grassed over hollows.

2.5 On the date of inspection the quarry was operational.

3.0 APPLICATION FOR FURTHER QUARRY DEVELOPMENT

- 3.1 The application for further quarry development received by the Board on the 16th December 2015 includes a completed application form, copies of statutory notices, an EIS and associated drawings.
- 3.2 The site to which the application refers has a stated area of 20.104 hectares of which a significant proportion is, as yet, agricultural land. The current extent of the extraction area is in the region of 5.3 -5.5 hectares.
- 3.3 The quarry produces crushed slate for use as hardcore fill on roads and general construction projects. The overlying soil and overburden removed by mechanical excavator was partly used on the site for landscaping purposes with the remainder retained for restoration purposes. Rock is then extracted by blasting and excavation, transferred to mobile crushing units by excavator and further processed by mobile screening units. The aggregate is stockpiled before export off site. There is no washing of material on site.
- 3.4 To date the resource has been worked in a number of phases worked to an overall maximum height of in excess of 30 metres. It is proposed that future extraction will be via 2 to 4 benches worked to an overall maximum height of up to 50 metres. Extraction has taken place within the quarry area to a final floor level of c.276mOD and this is to be continued. The site is worked above the water table.
- 3.5 Average extraction rates are estimated to be approx. 3,000 tonnes of material per week. At present less than 1000 tonnes per week is extracted. Previously it produced 4000 tonnes per week during peak production.
- 3.6 Surface water run-off flows down the site into the lowest point within the quarry floor and is directed into an attenuation pond. The water percolates into the ground.
- 3.7 An office, canteen and toilet facilities are located in the southern section of the site. Drinking water is said to be supplied by a well on the site located by the site offices. Wastewater generated is treated by a small scale

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- wastewater treatment plant. It is proposed to upgrade the treatment by installing a puraflo secondary treatment unit and new percolation area.
- 3.8 A wheelwash is also on site adjacent to the weighbridge. Water for the wheelwash is supplied from surface water on the site and is topped up using well water during dry periods. There is one tank for the storage of fuel. Dust control is by way of a sprinkler and water dowsing system. Fuel is not stored on the site.
- 3.9 An Environmental Management System is in place.
- 3.10 The proposal will entail a continuation of the quarry on a phased basis in an eastern and southerly direction. The quarry phasing is based on market demand and based of the current operations will be for a period of 20 years. over 9 phases. The maximum number of truck movements associated with the quarry will be c.25 per day.
- 3.11 Operating hours are normally during day light hours between 0700 and 1730 Monday to Friday and 0700 to 1400 Saturday.
- 3.12 On cessation of extraction the quarry is to be restored. The entire quarry floor will be covered with a 600mm of broken stone and a layer of terram in order to eliminate the possibility of fines entering the drainage layer. Over the drainage layer the levels will be made up using onsite overburden material and imported inert material. A layer of top soil cover to a depth of 450mm is spread over the entire and reseeded with natural grasses and the land restored to agricultural use. It is anticipated that upwards of 80,000 tonnes of suitable material will have to be imported from local sources.
- 3.13 The application also provides for the relocation of the existing entrance.

4.0 PLANNING AND REGULATORY HISTORY

4.1 Planning History

I am not aware of any planning application being lodged on the site.

4.2 Quarry registration under Section 261:

QR16 – the quarry was registered in accordance with Section 261. The area to which the registration referred was stated to be 21.4 hectares. Conditions following an appeal were attached including:

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Condition 9: submission of Environmental Management System Plan every 5 years.

Condition 11: annual environmental audit of site operations

Condition 12: ground water monitoring programme

Condition 13: extraction to be minimum 1 metre above water table

Conditions 14 & 15: noise parameters & monitoring

Conditions 16, 17 &18: blasting parameters and monitoring

Conditions 19 & 20: dust emission parameters and monitoring

Condition 23: improvement of site entrance

Condition 24 & 25: record of vehicular movements and details of haul routes

Condition 34: surface water disposal and water supply arrangements

Condition 35: site restoration and landscaping requirements

Condition 36: site not to be used for the purposes of landfilling without prior grant of permission

Condition 37: restoration bond

Condition 38: 10 metre buffer to be maintained to hedgerows around perimeter

4.3 Section 261A Determination and Decision

The Board in its review confirmed the determination under Section 261(A)(2)(a)(i) and set aside the determination made under (2)(a)(ii). It confirmed the decision under subsection (4)(a). As such an application for substitute consent accompanied by a remedial Environmental Impact Statement is required.

4.4 Substitute Consent

SU0103 – an application for substitute consent was lodged with the Board on the 25th June 2014.

5.0 PLANNING POLICY CONTEXT

5.1 Kildare County Development Plan 2011 – 2017

Section 10.7 refers to the extractive industry and sets out guidance. Applications will also be considered in the context of landscape quality, land uses, heritage and rehabilitation.

Section 10.8 sets out the policies and objectives for the extractive industry which effectively support the adequate supply of aggregate resources to

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ensure continued growth of the county and region subject to the impacts on the built and natural environment being minimised/mitigated.

The site is situated in the Eastern Uplands landscape character area identified on Map 14.1. It is detailed as having a 'high sensitivity' on Map 14.2. High sensitivity landscapes are detailed in Section 14.4.1 as being 'vulnerable landscapes with the ability to accommodate limited development pressure. In this rank of sensitivity, landscape quality is at a high level and landscape elements are highly sensitive to certain types of change.'

Hill top views and scenic routes in the vicinity of the site are delineated on map 14.3. Policies HV1 and SR1 relating to same seek their protection.

5.2 National Guidelines

The Quarries and Ancillary Activities Guidelines for Planning Authorities (April, 2004) offers guidance to Planning Authorities on planning for the extractive industry through the development plan process and determining applications for planning permission for quarrying and ancillary activities. The following sections are relevant to the current appeal.

- Section 3.4 outlines the potential environmental effects caused by quarrying on water supplies and ground water.
- Section 4.7 sets out possible planning conditions.
- Section 4.9 advises on the life of planning permission.

6.0 OBSERVATIONS

None received

7.0 PRESCRIBED BODIES

The application was circulated by the Board to prescribed bodies. The responses received can be summarised as follows:

7.1 Irish Water

 As the proposal is located within the catchment area of the Pollaphouca Reservoir, the continued implementation of the surface water management practices of diverting runoff to settlement ponds and the monitoring of ground water quality is recommended.

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7.2 Transport Infrastructure Ireland

- Whilst the EIS does not specifically outline the impact of traffic movements associated with the quarry on the junction of the N81/L-6030 it notes the estimated extraction output per year and the total traffic generated from the quarrying operations outlined in section 10.
- Subject to quarrying operations based on the analysis set out in the EIS it has no specific comments to make.
- Any recommendations contained in the EIS should be included as conditions should permission be granted.
- A preferred route corridor for the N81 Tallaght to Hollywood Cross Road Improvement scheme has been identified.

7.3 Wicklow County Council

- The N81/L6080 junction has the capacity to accommodate the anticipated vehicular movements. The junction currently operates well within its capacity.
- There is a history of flooding on the adjoining section of the N81. The source of the flood water was largely due but not exclusively confined to water run-off from quarries located in Co.Kildare making its way across fields and down the local road. In order to ensure that run off from the quarry would not result in a reoccurrence of flooding on the N81 conditions are recommended with respect to such discharges.

7.4 Fisheries Ireland

- All potential discharges must be in accordance with the European Communities (Surface Water) Regulations 2009 and the European Communities (Groundwater) Regulations 2010.
- Any future ground water monitoring should be down gradient of the percolation area.
- Any stockpiling of overburden or topsoil from the proposed extension must be considered and planned such that risk of pollution from these activities is minimised.
- Need for maintenance of wheelwash, silt traps, oil interceptors and effluent treatment system.
- Effluent treatment system to comply with EPA manual.

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7.5 Geological Survey of Ireland (Department of Communications, Energy & Natural Resources)

It has no additional comment to make in relation to the EIS as comments
made during the consultation process with particular reference to the
quarry being identified as a geological heritage site were duly integrated in
the EIS. Relevant items in the chapters dealing with soils & geology, and
water and hydrogeology were also adequately addressed.

7.6 Health Service Executive

- The proposed extension will move the operation further away from sensitive receptors which should lessen the impact from noise, air pressure and vibration.
- There is an Environmental Management System in place with continuous monitoring of noise, air quality and blasting with records kept. It is considered that if these systems are maintained and the quarry is operated as proposed in the EIS then all environmental issues will be addressed.

8.0 PLANNING AUTHORITY'S REPORT

The PA's report comprises of a covering letter accompanied by reports from Water Services, Environment, Roads Design, District Engineer and Planning sections. The response can be summarised as follows:

- The statement that the activities to date have not had a significant impact on the local area is not borne out by the enforcement history on the site.
- The hours of operation are unacceptable and would present serious concerns in terms of residential amenity of the area. Hours more in line with 8am to 6pm weekdays and 8am to 2pm on Saturdays are more appropriate and reasonable.
- The site is within an area considered to be visually sensitive. An over reliance on berms and planting as proposed is not best practice and would likely lead to a more prolonged exposure of working areas until such time as berms are put in place and planting matures. Where possible, extraction should take place on the site in a pattern that minimises exposure of the working area to the surrounding area.
- The local road is narrow, poorly aligned, has structural issues and has minimal drainage. There are concerns for 80 truck movements per day for 45 years.

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- The junction of the local road and the N81 forms part of the Blessington to Tallaght N81 Road Improvement Scheme. Whilst it is noted that the proposal will not impact on the corridor selection there are concerns in relation to the conflict of the turning movements of slow moving HGVs and fast moving vehicles.
- A programme for archaeological test trenching should be required prior to the commencement of quarrying in new areas.
- There should be no breaching of the water table as it could have consequence for Red Bog SAC.
- A quarry restoration plan should be provided.
- Information on waste arising has not been provided.
- As there are other quarries in the area the cumulative impacts need to be taken account of.
- The EIS does not appear to comprehensively consider alternatives.
- In line with Council policy and in light of the issues identified it is considered that should the Board grant permission it should be for a period of no more than 10 years.

9.0 APPLICANT'S RESPONSE TO PLANNING AUTHORITY SUBMISSION

The response by Cross Architect and Building Surveyor can be summarised as follows:

- There have been no recent complaints about the quarry operation.
- Noise has been reduced, a scheme of temporary berms are located to screen the activity. They have also reduced noise emissions.
- A dust suppression system is installed.
- The applicants will accept working hours of between 0700 to 1900 Monday to Friday and 0700 to 1400 Saturdays.
- In terms of visual impact and landscape the Kildare County Development Plan and EPA guidance manuals were followed. Due to the elevation of the site, several approaches need to be taken, from using berms from the lower sections to bulking up existing hedges and planting new ones as the site elevates. Berms are also being constructed to provide screening during the operational life of the quarry.
- Particular mention is made to the necessity for immediate planting along the ridge line to the north as this is a highly sensitive area and needs to have its existing planting bulked up to prevent any impingement on the scenic quality of the area.
- The applicants have carried out repairs to the local road following agreement with the Kildare Area Engineer's office.

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- The conditions set out in the S.E.Engineer's report are acceptable.
- The upgrading of the entrance forms part of the application.
- Surface water will be retained within the site.
- The Heritage Officer's conditions are acceptable.
- The applicant undertakes to submit a detailed and phased restoration plan including habitat restoration within 3 months of a grant of permission.
- There will be no excavation below the water table.
- Rather than a limit the duration of the permission conditions requiring annual digital terrain survey showing progression of excavation, restoration and landscaping and an annual Environmental Management Plan are recommended.

10.0 ISSUES AND ASSESSMENT

I consider the issues arising in respect of this application for substitute consent can be addressed under the following headings:

- Principle of Development
- Nature and Extent of Development Proposed
- Duration of Permission
- Environmental Impact Assessment
- Financial Contributions and Costs
- Conditions
- AA Screening

Note: An appropriately worded public notice was erected at the site entrance on day of inspection.

Principle of Development

- 10.1 The quarry produces quarried slate for use in the construction industry. It is stated that the rock is considered to have the acceptable properties in terms of polished stone value (PSV) and aggregate impact value (AIV) for use as road surfacing materials and for the construction industry.
- 10.2 The Department's Guidelines for Planning Authorities on Quarries and Ancillary Activities (DoEHLG, 2004) acknowledge that extractive industries make an important contribution to economic development in Ireland but that such operations can give rise to land use and environmental issues which

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require mitigation and control through the planning system. Concurrently policies of the current Kildare County Development Plan recognise that aggregate resources contribute significantly to the economic development of the county and facilitate its further development but that the exploitation of such resources is required to be carried out in a manner that does not adversely impact on the environment, existing infrastructure and the amenity value of neighbouring lands. Within this current policy context, I consider that the principle of development is acceptable on the site, subject to a satisfactory assessment of environmental effects.

Nature and Extent of Development

- 10.3 As per the details provided with the application the development for which approval is sought is the continuation of the quarrying activity on the site comprising the extraction of rock with the area to be extended to a stated area of 20.104 hectares.
- 10.4 The EIS is somewhat inconsistent at times in terms of certain elements of the proposal. In the interests of clarity I note the following:
 - The current extent of the extraction area is in the region of 5.3-5.5 hectares and not 6, 6.36 or 6.37 ha as referenced at a number of points throughout the EIS (sections 1.2, 1.6.1 and 1.6.2 respectively).
 - Whilst the maximum depth of extraction is to 276m OD there are a number of sections in the EIS where a figure of 176 m OD is given (eg. sections 1.6.4, 8.6 and 9.4). As confirmed from the details provided on the drawings submitted and site inspection the former figure of 276m OD is correct.
 - There are inconsistencies in terms of number and depth of benches at which the quarry is to be worked. Whilst future extraction by way of 2 to 4 benches is proposed 5 benches is referenced in section 2.3.2. In addition reference to the overall maximum height of the extraction varies between 30 and 50 metres. As per the drawings accompanying the application the latter figure of 50 metres is correct.
 - Whilst quarrying is to be carried on a phased basis with 9 phases clearly delineated it is stated that based on market demand the quarry would be operational for a period of 20 years. This contradicts Sections 8.6.2 and 10.3 which makes reference to a lifespan of c.45 years (5 years per phase).
 - Operating hours are normally during day light hours between 0700 and 1730 Monday to Friday and 0700 to 1400 Saturday. This differs from the

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- times given in 2.3.2 which refers to operating hours between 0500 and 2100pm.
- 10.5 I submit that there is sufficient clarity as to the nature and extent of the development as to allow for a proper assessment and I do not consider these discrepancies to be fatal. Whilst I will address the issues under the relevant headings below I submit that conditions could be attached for clarification purposes should the Board be disposed to a favourable decision.

Duration of Permission

- 10.6 As noted above there appears to be conflicting details provided as to the lifespan of the quarry varying between 20 years and 45 years. Kildare County Council in its submission to the Board recommends that a permission for 10 years be granted. In response the agent for the applicant recommends that conditions requiring annual digital terrain survey showing progression of excavation, restoration and landscaping in addition to an annual EMP be attached rather than a limit on the duration of the permission.
- 10.7 In view of the expected duration of further extraction for a minimum of 20 years which materially exceeds the duration of any development plan for the area and in which material changes may occur in terms of national and local policy with regard to the extractive industry I consider the restriction of the duration of the permission to a period of 10 years is appropriate on foot of which a reassessment of the proposal can be undertaken in light of the policy considerations that would pertain. This would correspond with the completion of the first two phases and would allow for a further assessment of the visual impacts of the development.

Environmental Impact Assessment

- 10.8 I submit that the EIS document which is prepared in the grouped format is generally consistent with the requirements of Article 94 of the Planning and Development Regulations, 2001-2013 (contents of an EIS). It does not provide information on the main alternatives studied, but having regard to the particular nature of the development, this is not a significant omission. I acknowledge the established practices in place and, in principle, it is reasonable that the extended operation would seek to replicate same where it comprises efficient and effective exploitation of the natural resource. It also includes a non-technical summary.
- 10.9 I would bring to the Board's attention that a material level of information pertaining to the activities at the site including monitoring results on noise,

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groundwater, dust etc were submitted in support of the Section 261 Registration application made to the PA under reference number QR16 which was subsequently appealed to the Board under reference number 09.QC2169. It is somewhat unfortunate that this information was not included in the EIS to provide a more comprehensive assessment of the works carried out to date and as baseline information for the proposed continuation and extension of the quarry activities.

10.10 Notwithstanding I am satisfied that the EIS taken in conjunction with this said information and other details available are adequate to enable the Board to carry out an environmental impact assessment and to make an adjudication on this application for approval. The Board is advised that the salient extracts from the Section 261 Registration file are attached to the report on the substitute consent under ref. SU0103 for ease of reference.

Environmental Impact Assessment

- 10.11 As the competent authority for decision making, the Board is required to carry out an environmental impact assessment of the application for further quarry development ie. to identify, describe and assess the direct and indirect effects of a proposed development, in accordance with Articles 4 to 11 of the EIA Directive, on the following:
 - Human beings, flora and fauna,
 - Soil, water, air, climate and the landscape,
 - Material assets and cultural heritage, and
 - The interaction of the foregoing.

The following assessment of environmental effects has regard to the EIS submitted, the information on file and my inspection of the site.

Human Beings

10.12 Matters pertaining to soil, water, air quality, noise, landscape and traffic that affect human beings are addressed later in this assessment. As evident in the documentation that accompanies other files relevant to the site that complaints have been made in the past about traffic, noise, dust and dirt. However having regard to the matters discussed below and conditions recommended in this report, I am of the view that no significant environmental impacts would arise as a consequence of the development to adversely impact on the well-being of people or populations in the vicinity of the site.

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10.13 Whilst employment on site is small, in the region of 3/4 persons, additional employment would arise from hauliers transporting material from the site. Thus it is not unreasonable to submit that the application site would make a positive contribution to economic activity in the area.

Flora and Fauna

- 10.14 The Board is advised that an AA Screening Report accompanies the application and is subject of assessment below.
- 10.15 The site is not within or adjacent to any designated European Site or identified as being of specific ecological merit.
- 10.16 The survey of the site was undertaken in the month of May which is stated to lie within the optimal season for habitat survey. It is contended that it was possible to identify all habitats to Fossitt level 3 and assess the likely presence of rare or protected species. The survey indicates the disturbed ground and spoil heaps around the active quarry to be of moderate local biodiversity value as it can provide refuge for a range of species including invertebrates, amphibians and breeding birds, however it presents few resources for protected mammals principally due to the limited availability of semi-natural habitat. The remainder of the lands are classified as improved agricultural grassland and whilst being of relatively higher plant diversity to the active quarry area does not warrant classification to higher biodiversity value. Subsequent to the site survey and literature review conducted the site was found to contain no current records or suitable habitat for rare or protected species with the likelihood of populations of small but ubiquitous protected species such as Common Frog, Hedgehog, Pygmy Shrew, Irish Stoat. No dedicated bat survey was carried out for this assessment however it is stated that it is likely that the Common Pipistrelle is present in the locality and there is suitable foraging habitat along the hedgerows but that features on the site have low roosting potential. There was no evidence of Peregrine Falcon on the site with no known records of occurrence within a 10km radius of the site.
- 10.17 Certainly the continued quarry activity will result in the loss of internal boundary hedgerow which may result in the loss of features of value for certain species. The hedgerows around the site perimeter are to be maintained. Given the existence of a quarry on the site species recorded have learned to effectively co-exist with the quarry operation and it is reasonable to assume that this would continue. The species observed on site would appear to have generally adapted to the level of disturbance arising from quarrying and it is reasonable to assume that no significant adverse

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- impacts on these species are likely to arise with the continuation and expansion of the quarry.
- 10.18 Mitigation measures are proposed with regard to the loss of hedgerow entailing precluding their removal during the bird breeding season between March and August, provision of new berms along the southern boundary as quarrying progresses and strengthening of the perimeter hedgerows. Planting is to be appropriate to the area.
- 10.19 I would conclude that no significant adverse ecological impacts are evident from works to date within the current active area of the quarry and the proposed development is not considered to give rise to any significant change in same.

Soil

- 10.20 The bedrock geology is identified by the GSI as The Slate Quarries Formation and the overlying Glen Ding Formation. Top soil and sub-soils have been and will continue to be removed from the quarry area together with the slate deposits. Overburden will be retained in the south-eastern section of the site and used for landscaping purposes.
- 10.21 As noted above there is a discrepancy as to the maximum extent of extraction with the figure as given in various sections of the EIS differing between 30 and 50 metres. Taking the details as given on the plans accompanying the application and the fact that the quarry floor shall be maintained at 276m OD the latter figure, as a maximum, is applicable.
- 10.22 Extraction of slate by blasting and excavators is a permanent and irreversible impact. Whilst the extraction is to extend to 20 hectares this permanent loss is unlikely to be significant in terms of the overall reserve.
- 10.23 Contamination is possible as a consequence of accidental spills. The EIS appears to be largely silent on such matters. Nonetheless, I observed no evidence of pollution of soil/bedrock on site with no detail on file to suggest that same was an issue in the past. Subject to appropriate conditions and on the basis of the information available I consider that the operation is unlikely to have given rise to any significant direct or indirect impacts on soil or geology.

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Water

- 10.24 The site is located within the Tinode Catchment under the Water Framework Directive. Whilst the EIS states that there are no surface water bodies located within the immediate vicinity of the quarry with the nearest being the Goldenhill Stream located west of the N11 in the townland of Hempstown c. 2km southeast of the site boundary, information provided during the assessment of the previous section 261 registration makes reference to two water bodies to the north-west and the pond on lands to the north (to east of field no.2) which is used by cattle and sheep. Water quality was tested in each with the results forwarded to the PA. A copy of the said results is attached to file ref. SU0103. The results were within the parameters applicable at that time.
- 10.25 The quarry varies in ground elevation from 276m OD at the quarry floor to 322mOD along the quarry face to the north-west. The quarrying activities were and are proposed to be carried out above the water table. Whilst no details are provided in terms of depth of groundwater I note in point 6 of the further information (FI) response to the Section 261 Registration application that five boreholes were sunk around the site and the results demonstrated that the watertable was materially below the lowest elevation of the existing quarry floor.
- 10.26 No groundwater pumping has been required and this remains the case in the continuation and extension of the quarry activity. Surface water run-off from the quarry floor is directed to a settlement pond within the eastern section of the site which permits the collected surface water to percolate to ground with water from same used for the wheelwash installed adjacent. There is no discharge to surface water. It is proposed to continue this arrangement. No details are provided as to the capacity and retention time of the settlement lagoon and predicted surface water flow from the quarry extension. The Board may consider it appropriate to seek information in this regard. I submit that given the system already exists and appears to be operating satisfactorily and the absence of any stated concerns by the prescribed bodies and Planning Authority a condition could be attached to secure such details should permission be granted.
- 10.27 In terms of water supply a well immediately adjacent to the office portacabin was noted on day of inspection. The said borehole serves the requirements of the canteen and toilet facilities and top up for wheel wash when necessary. Whilst not detailed I would accept the assertion that the groundwater abstracted is minimal. A series of groundwater samples were collected in

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- 2009 and 2011 from the borehole with the results set out in Table 9.4. The results are within the EC (Environmental Objectives) threshold values for groundwater.
- 10.28 It is noted that the discharge of materials such as fuels, lubricants and hydraulic fluids are sources of groundwater contamination should there be inappropriate handling and storage. It is stated that best practices which were initiated post Section 361 Registration to avoid such a scenario including storage of fuel in fully bunded areas are to continue. As noted previously, groundwater monitoring on site showed no levels of hydrocarbons in the groundwater which would suggest that the storage and usage of such material on the site have not had a significant impact on the underlying groundwater quality. It is noted that the groundwater well is located adjacent to the fuel storage area beside the office and canteen.
- 10.29 Effluent disposal from the toilet facilities are via an on-site wastewater treatment system which is to be upgraded as part of this application. The system is to be constructed near the site entrance in accordance with EPA guidelines. A site suitability assessment accompanying the application demonstrates the area as being suitable for such a discharge. This is considered to be an appropriate remedial measure.
- 10.30 I note the comments from Wicklow County Council regarding the potential for surface water from the quarry site along the local road to contribute to flooding on the N81 to the south. The containment of all surface water within the site can be ensured by way of condition.
- 10.31 On the basis of the available information I submit that sufficient evidence has been provided to support the assertion that groundwater will not be affected by the continuing quarrying operation on site. No third party or prescribed body has raised concerns regarding impact of the quarry on groundwater (volume or quality).

Air and Climate

10.32 As stated, the application site is situated in a relatively lightly populated rural area. There are a number of dwellings in the vicinity predominately located along the county road that serves the area. The nearest dwelling which is c.30 metres from the site entrance is in the ownership of one of the quarry owners. There are three other quarry sites in proximity to the subject site, namely Stresslite precast concrete manufacturing facility and quarry located

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- to the southeast of the site and two sand and gravel pits (one closed). All are located within 600 metres of the subject site.
- 10.33 The main emission to air arising from the quarry is dust. Dust monitoring has been carried out at four locations around the site since 2009 following Section 261 Registration on foot of conditions 19 and 20 attached to same. As the monitoring undertaken would have been of the actual air quality in the vicinity of the site and is not specific to the site dust from all local sources including the potential emissions from other extractive activities in the vicinity that contribute to the ambient air quality in the vicinity would be attributed. Thus by its very nature the measurement method ensures that the cumulative impacts is assessed. The results as given in Table 6.2 are within the recommended limit value of 350mg/m²/day for dust deposition.
- 10.34 The main processing and material transfer operations associated with the extraction activities, save during periods of initial lateral expansion including stripping of top and subsoils and the construction of screening banks, would occur below the existing ground level which will contribute towards containing dust emissions within the site boundaries. The construction phase, in particular bund construction and overburden removal, is identified as the worst in terms of potential nuisance, however the phased design of the quarry will ensure the progressive working of the quarry away from the closest receptors. Dust mitigation measures in place as part of the ongoing Environmental Management System including use of water sprays on materials stockpiles and haul roads during dry weather and a wheel wash are to be continued.
- 10.35 Having regard to the scale of the development, the dust monitoring results to date, the distance of the nearby residential properties from the site, the progressive working of the quarry away from the closest receptor, their upwind location relative to the location of the quarry and intervening landscape features, I do not consider that the development would give rise to significant dust deposition. Mitigation measures are not considered necessary with monitoring to be ongoing.
- 10.36 In terms of noise the quarry operates in a rural area with quiet background noise levels. In the vicinity of the quarry noise arises from the local road passing the site and from the other extractive and related manufacturing industries in the vicinity. From the quarry, itself, noise emissions would arise from plant and equipment, blasting, processing and vehicles entering and leaving the site.

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- 10.37 There are a number of screening banks along portions of the site boundaries which appear to offer some noise attenuation which is further assisted by the fact that the working quarry floor is materially below the surrounding ground levels.
- 10.38 As with dust, monitoring was undertaken as required by conditions 14 and 15 attached to the Section 261 Quarry Registration. The results set out in Tables 7.1a and 7.1b of the EIS pertain to the noise environment with the quarry in operation. Such monitoring largely post-dates what would have been the busiest time at the quarry which would have corresponded with the period of greatest economic expansion.
- 10.39 The recorded noise levels were below the 55dB(A) standard applied for such type development as measured at the nearest sensitive locations as delineated on Figure 7.1. It is anticipated that the noise during initial construction involving removal of overburden and initial quarrying would be of relatively short duration. In the main works would be below the existing ground level thereby assisting in ameliorating noise levels. The construction of screening banks around the site will also assist in ameliorating noise.
- 10.40 Blasting is to continue at the site to facilitate the working of the rock. In the past the frequency of blasting was between once every two months during peak production periods down to 1-2 per year in recent times. As per section 7.2.2 monitoring of these events for vibration at the nearest sensitive receptors was undertaken in accordance with condition 16 attached to the Section 261 registration but whilst it is stated that the results were all below the specified limits of 112mm/sec and 125dB(L) max peak air overpressure, evidence of same has not been provided in the EIS to corroborate the claim.
- 10.41 In view of the distance of the nearby residential properties from the site, the progressive working of the quarry away from the closest receptor and in depth below the level of the surrounding lands, I do not consider that the development would give rise to noise levels or vibration impacts which would have a significant adverse impact on the environment. The continuation of standard mitigation measures already in place is proposed with monitoring to be ongoing. Conditions setting the relevant parameters not to be exceeded and best practice procedures are appropriate in this instance.
- 10.42 In terms of climate the quarry development would have resulted in the emission of greenhouse gases to the atmosphere, primarily from the operation of plant and vehicles. However, these would not be significant locally.

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Landscape

- 10.43 The site is within an area that forms part of the Eastern Uplands region as delineated in the current Kildare County Development Plan. The topography of the area is one of undulating hillside that rises gently from the plains of Kildare on one side and the Blessington lakes to the other. The quarry lies within an area considered to be sensitive due to its elevation and is designated as an Area of Special Amenity in the current Kildare County Development Plan 2011-2017. The L6030 from which the site is accessed is part of a designated scenic route providing views to the Blessington Lakes, the Wicklow Hills and the Plains of Kildare. Whilst the site is accessed directly from the local road the main works area is set back from the entrance.
- 10.44 The quarry void has substantially altered the landform of the local area. It cuts into the base of the rising topography resulting in higher faces on the north-western and north-eastern boundaries and has resulted in steep faces. However, views of the void and buildings on the site are limited as a consequence of topography, vegetation and embankments and are largely restricted to long distance views. The site is largely hidden from view along the road travelling in both directions and from the south-west due to the berm constructed along this boundary.
- 10.45 I consider that the EIS is somewhat lacking in assessment of the impact of the proposed continuation and extension from areas outside the quarry site. As the quarrying advances in a north-eastern and then southerly direction in the later phases views, from the east would become more evident with the potential for the visual amalgamation of the quarry workings with Streelite and Murphy Sand and Gravel operations to the east.
- 10.46 Four different approaches are to be taken in terms of mitigation namely:
 - The terracing of the existing exposed quarry face.
 - Construction of berms along the east-south/east boundary to screen the quarrying from views.
 - Planting of screen vegetation to the terracing and berms to enhance the screening effect.
 - Inter-planting of existing hedgerows
- 10.47 I would concur with the agent for the applicant that due to the elevation of the site a mix of landscaping measures are required to mitigate the landscape

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- impact. I note particular mention to the need for immediate planting along the ridge line to the north.
- 10.48 I submit that certainly the proposal will have an impact on the views of the area but that to a large extent these views will be available from a distance. I submit that due to such distance the impact could not be construed as significant in a panoramic context.
- 10.49 Details of the future rehabilitation are provided in section 11.7 and in the section drawings. It is proposed that the quarry floor will be gradually refilled to a depth of 10 metres and returned to pasture. This is to be done section by section as areas become available and are no longer needed for access. It is estimated that in the region of 50,000 tonnes of material will be required to be imported to allow for the rehabilitation programmed. I consider that such provision is a necessary requirement for the sites rehabilitation following the quarrying activities. Whilst the details outlined may be considered to be somewhat limited the principle of the restoration plan is acceptable. I recommend a condition requiring a more detailed restoration plan which sets out a more informed outline of timelines and species to be used should approval be granted.

Material Assets

- 10.50 Key local resources which are intrinsic to the application site include agricultural land on which quarrying is taking place, the stone resource being worked, and the road infrastructure in the vicinity.
- 10.51 The site is accessed via local road L6030 c. 1.4 km from the its junction with the N81 along which two other quarries have access in addition to one off housing. The road in the immediate vicinity of the site is noted to be relatively narrow with poor alignment although the stretch to the south towards its junction with the N81 is relatively straight with a good surface and ability to allow for two way HGV traffic. A 60 kph speed limit applies along the road, most likely as a consequence of the HGV movements experienced along same.
- 10.52 Based on the predicted annual extraction rates from the site a maximum of 150,000 tonnes per annum (3,000 tonnes per week) is anticipated. This equates to 30 loads per day. Due consideration is given to the importation of estimated rehabilitation material at 50,000 tonnes per year. This equates to 10 loads per day. In total therefore the total HGV movement would be 40 loads per day which translates into 80 movements. Whilst this does not

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- account for car movements such generation would be considered to be small and would not have a material impact.
- 10.53 All HGV movements would exit the site travelling in a southerly direction accessing onto the N81. The local road serving the site is of a reasonable scale and condition with two way HGV movements possible along parts. In this regard I submit that the volume of traffic that would have been generated by the quarry during the economic boom of the mid 2000's would have been materially greater than that anticipated into the future. There is nothing before the Board to confirm that the levels caused significant environmental impact for the wider community or to have adversely affected the carrying capacity of the local or national road network involved. There is no record of the overall development having resulted in any significant traffic hazard. As such it is reasonable to conclude that the anticipated vehicular movements at a significantly reduced volume would be acceptable.
- 10.54 The current access has restricted sightlines to the north and it is proposed to relocate same further north along the roadside boundary. This is considered to be entirely appropriate and I recommend that a condition requiring its provision within a certain timeframe be attached by way of condition should the Board be disposed to a favourable decision.
- 10.55 I note the differing opening hours for the operation given in the EIS as referred to above. Quite obviously the hours between 0500 and 2100 are unacceptable. The agent for the applicant in response to the Planning Authority's submission on the application conceded the acceptance of operating hours of between 0700 and 1900 Monday to Friday and 0700 and 1400 Saturdays. These hours can be clarified by way of condition.

Cultural Heritage

- 10.56 No recorded monuments lie within the site or in close proximity to it. In addition there are no protected structures in the vicinity with the nearest identified being 750 metres from the site boundary.
- 10.57 Notwithstanding there is the potential for undocumented archaeological finds within the site with three features of potential archaeological significance. The first two are the sub-surface linear feature and oblong depression in Field 2 and the third is the townland boundary along the eastern edge of the quarry. Further investigation of same prior to quarrying is recommended.

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Inter-relationship between the Foregoing

10.58 The main interactive impacts arising from the operation of the quarry are:

- Human beings, landscape, noise, dust, material assets and traffic related impacts.
- Flora & Fauna, Soils & geology and water
- 10.59 The EIS has not explicitly dealt with the issue of cumulative impacts arising from the other extractive and manufacturing operations in the vicinity but it is reasonable to surmise that same has been implicitly considered with regard to the issues of noise and dust. These were noted to be within acceptable limits and their continuation are unlikely of themselves to cause significant environmental effects. No doubt the presence of three quarries in close proximity with their associated noise, dust and traffic effects have an impact although it is not considered that same is such as to warrant a refusal of approval for continuation of this quarry activity.

AA - Screening

- 10.60 An AA-Screening report accompanies the application and addresses two designated sites.
- 10.61 The following staged approach to screening for appropriate assessment is recommended in both EU Guidance and by the Department of Environment, Heritage and Local Government:-
 - Description of the plan or project and local site or plan area characteristics.
 - Identification of relevant Natura 2000 sites and compilation of information on their qualifying interests and conservation objectives.
 - Assessment of likely effects-direct, indirect and cumulative, undertaken on the basis of available information.
 - Screening statement with conclusions.

Project Description and Site Characteristics

10.62 The proposed development is as described in sections 1 and 2 above.

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Relevant Natura 2000 Sites, Qualifying Interests and Conservation Objectives

- 10.63 The quarry is c. 1.5km to the north–east of Red Bog cSAC (site code 0397) the qualifying interest for same being Transition mires and quaking bogs.
- 10.64 The site is 3km to the north of Poulaphuca Reservoir SPA (site code 04063) the qualifying interests are Greylag Goose and Lesser Black-backed Gull.
- 10.65 I also note that the site is approx. 7km to west of Wicklow Mountains SAC (site code 2122). The qualifying interests include Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea, Natural dystrophic lakes and ponds, Northern Atlantic wet heaths with Erica tetralix, European dry heaths, Alpine and Boreal heaths, Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe), Blanket bogs (* if active bog), Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani), Calcareous rocky slopes with chasmophytic vegetation, Siliceous rocky slopes with chasmophytic vegetation, Old sessile oak woods with Ilex and Blechnum in the British Isles and Otter
- 10.66 In all three sites generic conservation objectives apply to date, the overall objective being to maintain or restore the favourable conservation status of the habitats and species of community interest so as to contribute to the overall maintenance of favourable conservation states of those habitats and species at a national level.

Assessment of likely effects

- 10.67 The site is not within a designated site thus there would be no direct impacts from the proposed development.
- 10.68 In terms of indirect effects I submit that in terms of the qualifying interests of the SPA detailed above there is no evidence that the quarry as developed to date has had an impact on the qualifying interests of the SPA in terms of light, dust or noise pollution. There are no watercourses connecting the site to the reservoir with surface water draining to an attenuation pond which percolates to ground. Thus subject to appropriate measures to ensure proper storage of fuels and to prevent accidents no indirect impacts would arise.
- 10.69 In terms of Red Bog SAC river basin mapping shows that the wetland is in a separate hydrological unit to the quarry. As extraction is to continue above the water table and the quarry is not located within the hydrological catchment of the designated site there is not pathway between the two.

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- 10.70 There is no identifiable pathways from the quarry site to the Wicklow Mountains SAC. Thus having regard to the distance from the quarry site I am satisfied that the proposed development does not have the potential to affect this site.
- 10.71 There is no evidence to suggest that issues have arisen in terms of cumulative impacts with the historical operation of the adjoining quarry and commercial activities on either of the two identified designated sites. The proposal entails a continuation of the quarry activities at a level that would be considered to be materially lower than that experienced between 2002-2008. The fact that the site is situated in a separate hydrological unit to the Red Bog SAC is noted. I therefore consider that the potential for in combination effects would not arise.

Screening Statement and Conclusions

10.72 In conclusion having regard to the foregoing and on the basis of the information available, it is reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually and in combination with other plans or projects would not be likely to have a significant effect on any European Site and in particular site numbers 04063 and 0397 in view of the sites' Conservation Objectives and, a Stage 2 Appropriate Assessment (and submission of a NIS) is not therefore required.

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11.0 CONCLUSIONS AND RECOMMENDATION

In conclusion having regard to the documentation on file, the submissions received, a site inspection and the assessment above I recommend that permission for further quarry development be granted subject to conditions in accordance with the following **Draft Order**:

REASONS AND CONSIDERATIONS

The Board had regard, inter alia, to the following:

- (a) the provisions of the Planning and Development Act, 2000, as amended, and in particular Section 37L,
- (b) the 'Quarry and Ancillary Activities, Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government in April 2004,
- (c) the provisions of the Kildare County Development Plan, 2011-2017,
- (d) the Environmental Impact Statement submitted with the application for further development,
- (e) the report and the opinion of the planning authority under section 37L(12)(a),
- (f) the submissions made in accordance with regulations made under Article 270(1) of the Planning and Development (Amendment) (No. 2) Regulations 2015,
- (g) the report of the Board's Inspector, including in relation to potential significant effects on the environment,
- (h) the planning history of the site,
- (i) the pattern of development in the area,
- (j) the nature and scale of the development the subject of this application for further development, and
- (k) Ref. SU08.SU103 application for substitute consent at the subject site.

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Appropriate Assessment

The Board noted that the proposed development is not directly connected with or necessary to the management of a European Site. In completing the screening for Appropriate Assessment, the Board accepted and adopted the screening assessment and conclusion carried out in the Inspector's report in respect of the identification of the European sites which could potentially be affected, and the identification and assessment of the potential likely significant effects of the proposed development, either individually or in combination with other plans or projects, on these European sites in view of the site's Conservation Objectives. The Board was satisfied that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on European Site Nos. 04063 and 0397, or any other European site, in view of the sites' Conservation Objectives.

Environmental Impact Assessment

The Board considered that the Environmental Impact Statement submitted with the application, the report, assessment and conclusions of the Inspector with regard to this file and other submissions on file, was adequate in identifying and describing the direct and indirect effects of the proposed development. The Board completed an environmental impact assessment, and agreed with the Inspector in her assessment of the likely significant effects of the proposed development, and generally agreed with her conclusions on the acceptability of the mitigation measures proposed and residual effects. The Board generally adopted the report of the Inspector. The Board concluded that, subject to the implementation of the mitigation measures proposed, the proposed development would not be likely to have significant effects on the environment.

CONDITIONS

1. The development shall be carried out in accordance with the plans and particulars lodged with the application submitted to An Bord Pleanala on the 16th day of December, 2015, except as may otherwise be required in order to comply with the following conditions. Where such conditions requires points of detail to be agreed with the planning authority, these matters shall be the subject of written agreement, and shall be implemented in accordance with the agreed particulars. In default of agreement, the matter(s) in dispute shall be referred to An Bord Pleanala for determination.

Reason: In the interest of clarity.

2. This grant of approval shall be for a period of 10 years from the date of this order.

Reason: To enable the effects of the development to be reassessed in the light of the operation of the permission and the circumstances then obtaining

3. The developer shall submit annually, for the lifetime of the permission, an aerial photograph which adequately enables the planning authority to assess the progress of the phases of extraction.

Reason: In order to facilitate monitoring and control of the development by the planning authority.

4. Within three months of the date of this order, details of the surface water management system for the entire site shall be submitted to, and agreed in writing with, the planning authority.

This shall include the following:

- a. Details of the capacity of the lagoon on site;
- b. Calculations on the predicted surface water flow into the lagoon;
- c. Predicted retention time of the existing settlement lagoon;
- d. Time frame for implementation of any changes which may be required;
- e. Management measures to cater for extreme rainfall events;

Reason: To ensure protection of groundwater quality and to provide for the satisfactory disposal of surface water.

4. Surface water from the site shall not be permitted to drain onto the adjoining public road.

Reason: In the interest of traffic safety.

5. The new site entrance as detailed on Drawing Name: Site Layout – Site Entrance received by An Bord Pleanala on the 16th day of December, 2015 shall be constructed and the existing site entrance shall be closed up and the roadside boundary planted within 6 months of the date of this order.

Reason: In the interest of traffic safety.

- 6. A detailed restoration scheme for the site according to the broad principles indicated on Drawing Name Sections A-A, B-B, C-C & D-D submitted to An Bord Pleanála on the 16th day of December, 2015, shall be submitted to the planning authority for written agreement within three months of the date of this order. The following shall apply in relation to the design and timing of the restoration plan:
 - a. Details relating to finished gradients of the cliff faces, the type of restoration to be carried out and to measures to ensure safety during site restoration shall be provided.
 - b. Details of landscaping including planting and mounding to be carried out.
 - c. A phasing timescale for implementation and proposals for an aftercare programme of five years shall be submitted to the planning authority for written agreement.

Reason: In the interest of the visual amenities of the area, to ensure public safety, and to ensure that the quarry restoration protects and enhances ecology.

- 7. The development shall be operated and managed in accordance with an Environmental Management System (EMS), which shall be submitted by the developer to, and agreed in writing with, the planning authority within 3 months from the date of this order. This shall include the following:
 - a. Proposals for the suppression of on-site noise.
 - b. Proposals for the on-going monitoring of sound emissions at dwellings in the vicinity.
 - c. Proposals for the suppression of dust on site
 - d. Details of safety measures for the land above the quarry, to include warning signs and stock proof fencing.
 - e. Management of all landscaping
 - f. Monitoring of ground and surface water quality, levels and discharges.
 - g. Details of site manager, contact numbers (including out of hours) and public information signs at the entrance to the facility.

Reason: In order to safeguard local amenities.

8. The depth of the excavation shall be no lower than 270 metres Ordnance Datum and, in any case, all excavation shall be above the water table.

Reason: To protect groundwater in the area

9. All over ground tanks containing liquids (other than water) shall be contained in a waterproof bunded area, which shall be of sufficient volume to hold 110 per cent of the volume of the tanks within the bund. All water contaminated with hydrocarbons, including stormwater, shall be discharged via a grit trap and three-way oil interceptor with sump to a watercourse. The sump shall be provided with an inspection chamber and shall be installed and operated in accordance with the written requirements of the planning authority.

Reason: In order to protect groundwater.

10. Scrap metal and other waste material shall be removed at least annually from the site in accordance with the written requirements of the planning authority. Such materials shall be deemed to include scrapped trucks, other scrapped vehicles, empty oil barrels, broken or otherwise unusable truck bodies, worn out conveyor belts/chains, worn out batteries, unusable tyres and worn out conveyor/roller shafts.

Reason: To protect the amenities of the area.

11. The site shall be screened in accordance with a scheme of screening measures and boundary treatment in respect of the entire quarry complex which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This scheme shall include the timeframe, specific locations, and final form and height of proposed screening berms, details of all planting proposed on existing and proposed screen berms, details of the ongoing care and management of such planting, details of a phased programme of landscaping within the quarry and details of an adequate barrier to prevent unrestricted access to the top of the quarry face from adjacent lands.

Reason: In the interest of visual amenity and to safeguard the amenities of property in the vicinity during the operating phase of the development.

12. The quarry, and all activities occurring therein, shall only operate between 0700 hours and 1800 hours, Monday to Friday and between 0700 hours and 1400 hours on Saturdays. No activity shall take place outside these hours or on Sundays or public holidays. No rock-breaking activity shall be undertaken within any part of the site before 0800 hours on any day.

Reason: In order to protect the [residential] amenities of property in the vicinity.

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- 13. During the operational phase of the proposed development, the noise level from within the boundaries of the site measured at noise sensitive locations in the vicinity, shall not exceed
 - (a) an LArT value of 55 dB(A) during 0700 and 1800 hours. The T value shall be one hour
 - (b) an LAeqT value of 45 dB(A) at any other time. The T value shall be 5 minutes

Reason: In order to protect the [residential] amenities of property in the vicinity.

- 14. (a) Blasting operations shall take place only between 1000 hours and 1700 hours, Monday to Friday, and shall not take place on Saturdays, Sundays or public holidays. Monitoring of the noise and vibration arising from blasting and the frequency of such blasting shall be carried out at the developer's expense by an independent contractor who shall be agreed in writing with the planning authority.
 - (b) Prior to the firing of any blast, the developer shall give notice of his intention to the occupiers of all dwellings within 500 metres of the site. An audible alarm for a minimum period of one minute shall be sounded. This alarm shall be of sufficient power to be heard at all such dwellings.

Reason: In the interest of public safety and residential amenity

- 15. (a) Vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. The peak particle velocity relates to low frequency vibration of less than 40 hertz where blasting occurs no more than once in seven continuous days. Where blasting operations are more frequent, the peak particle velocity limit is reduced to eight millimetres per second. Blasting shall not give rise to air overpressure values at sensitive locations which are in excess of 125 dB (Lin)max peak with a 95% confidence limit. No individual air overpressure value shall exceed the limit value by more than 5 dB (Lin).
 - (b) A monitoring programme, which shall include reviews to be undertaken at annual intervals, shall be developed to assess the impact of quarry blasts. Details of this programme shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any quarrying works on the site. This programme shall be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be

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submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

Reason: To protect the residential amenity of property in the vicinity.

- 16. (a) Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of 30 days (Bergerhoff Gauge). Details of a monitoring programme for dust shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Details to be submitted shall include monitoring locations, commencement date and the frequency of monitoring results, and details of all dust suppression measures.
 - (b) A monthly survey and monitoring programme of dust and particulate emissions shall be undertaken to provide for compliance with these limits. Details of this programme, including the location of dust monitoring stations, and details of dust suppression measures to be carried out within the entire quarry complex, shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any quarrying works on the site. This programme shall include an annual review of all dust monitoring data, to be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

Reason: To control dust emissions arising from the development and in the interest of the amenity of the area.

- 17. The developer shall facilitate the archaeological appraisal of Field No. 2 as delineated on Figure 4 in the Environmental Impact Statement received by An Bord Pleanala on the 16th day of December, 2015 and in the vicinity of the townland boundary extending along the eastern edge of the quarry and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:
 - (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development, and

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(b) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works.

The assessment shall address the following issues:

- (i) the nature and location of archaeological material on the site, and
- (ii) the impact of the proposed development on such archaeological material. A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements including, if necessary, archaeological excavation prior to commencement of construction works.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the area and to secure the preservation (in-situ or by record) and protection of any archaeological remains that may exist within the site.

18. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms and Development Act 2000, as amended. The contribution shall relate to the greenfield area of the site which has not to date been excavated and shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

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19. Within three months of the date of this order, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to the Board for determination.

Reason: To ensure the satisfactory restoration of the site in the interest of visual amenity.

Pauline Fitzpatrick Inspectorate

May, 2016