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PROPOSED DEVELOPMENT

- 1.1 This Environmental Impact Statement (EIS) accompanies a planning application to Wicklow County Council (the Planning Authority) by Roadstone Limited for the backfilling of the existing quarry void at Calary Quarry, near Kilmacanogue, Co. Wicklow using imported inert soil and stone generated by construction activity across the Greater Dublin and North Wicklow area and the ultimate restoration of the site to its original heathland / grassland habitat.
- 1.2 As much of the soil and stone to be imported and used for backfilling and restoration purposes will be classified as waste, the size and scale of the proposed activity is such that it will also require a waste licence from the Environmental Protection Agency (EPA). The proposed activity is technically classed by national and European waste management legislation as '*recovery through deposition on land*' and the proposed development is classified as a 'soil recovery facility'.
- 1.3 The total volume of soil required to backfill and restore the quarry is estimated to be of the order of 1,830,000m³ (1.83 million cubic metres), equivalent to approximately 3,300,000 tonnes.
- 1.4 When fully operational, the proposed facility at Calary Quarry will be the only dedicated soil waste recovery facility licensed by the EPA on the southern side of Dublin City or along the strategic N11 road / development corridor through County Wicklow. The only other licensed waste facility along the N11 corridor is an inert construction and demolition (C&D) waste landfill at Kilmurry South on the eastern side of the Sugar Loaf, operated by Marrakesh Ltd. (Waste Licence Ref. No W0048-01). Although another soil recovery facility, located at Kilmartin, Coynes Cross, approximately 12km south of the application site, was licensed by the EPA back in 2009 (Waste Licence Ref. No W0252-01), the facility was never established by the Licensee (BUCHPA Limited / Norse Family) and soil recovery activity never commenced.
- 1.5 Existing or former quarry facilities and infrastructure, including a site office, canteen, changing room, toilets, stores, toilets, lunch room, ESB substation, fuel storage area, settlement tanks, wheelwash, effluent disposal system and site entrance, are all currently permitted by Planning Permission Ref. No. 06/6189 (An Bord Pleanála Ref. PL.27.224400). It is envisaged that much of the existing or former quarry infrastructure will be re-used, replaced, re-instated and/or upgraded for the purposes of the proposed quarry backfilling and restoration activities.

THE SITE

Site Location

- 1.6 The proposed inert soil waste recovery facility is located at Calary Quarry, in the townlands of Killough Upper and Glencap Commons Upper, to the west of Kilmacanogue, Co, Wicklow. The location of the application site is indicated on an extract from the 1:50,000 scale Ordnance Survey Discovery series map of the area, reproduced as Figure 1-1.

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- 1.7 The proposed inert soil waste recovery facility is located approximately 2.3km south-west of Kilmacanogue and the junction of the R755 Regional Road and the N11 National Primary Road. It is also located approximately 4.4km south of the village of Enniskerry.
- 1.8 The application site is located within a quarry on the lower western slopes of the Great Sugar Loaf, shown on Figure 1-1. The area to be backfilled and restored comprises a deep, steep sided void and extends across the full plan footprint of the former quarry.
- 1.9 Roadstone Ltd.'s land interest, covering 25.4 hectares (61.2 acres) is outlined in blue on a 1:10,000 scale map of the area, in Figure 1-2, while the application site, covering 9.1 hectares (21.9 acres) is outlined in red. The location at which the planning site notice has been erected is also indicated in Figure 1-2.

Existing Development

- 1.10 The existing quarry at Calary was originally opened and operated by Wicklow County Council. Roadstone commenced quarrying activities at the application site in 1973. Rock at the quarry was extracted using conventional blasting methods and was then processed on the quarry floor using mobile crushing and screening plant.
- 1.11 Quarry operations were suspended in 2010 in response to the sharp downturn in activity in the construction sector at that time. Extraction and aggregate production rates at Calary Quarry averaged approximately 300,000 tonnes / annum in the years immediately prior to the suspension of quarrying activities in 2010.
- 1.12 Since quarrying activities were suspended in 2010, dewatering has been discontinued at the quarry. Natural drainage (principally surface run-off from surrounding sloping ground and rainfall) has caused water levels in the quarry void to gradually rise, from a former floor level of approximately 220mOD to approximately 244mOD. A recent (2015) orthorectified aerial photograph showing the flooded quarry workings is provided in Figure 1-3.
- 1.13 As indicated on the existing site layout plan in Figure 1-4, the original (undisturbed) ground levels around the top of the quarry generally fall from 285mOD to 290mOD on its eastern side, to between 250mOD and 260mOD on the western side. The infrastructure area servicing on-site activities is located at an area of relatively flat ground in the central western section of the quarry, at ground levels of between 245mOD and 247mOD.
- 1.14 All overburden soil above the in-situ rock at the quarry has previously been stripped and placed in screening berms, principally along its northern and western perimeters. Although the primary function of the berms is to mitigate the potential visual impact of the quarry, they also attenuate noise and dust emissions associated with extraction and related activities.

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- 1.15 The central infrastructure area is accessed by a short section of paved internal roadway which runs immediately inside the western property boundary and descends gradually northwards from the site entrance. Within the quarry, the floor area is accessed by an unpaved haul road which descends from the infrastructure area and runs southwards along the south-western quarry face (refer to Figure 1-4).

Surrounding Land-Use

- 1.16 As previously noted, the application site is located in an existing quarry on the lower western slopes of the Great Sugar Loaf. It is bound to the west by the R755 Regional Road, to the north by heathland / scrubland, to the east by commonage / grazing land across the western slope of the Great Sugar Loaf and to the south by more scrubland.
- 1.17 The R755 lies up-slope from the Killough River which marks the boundary between the west-facing slope of the Great Sugar Loaf and the east-facing slope of Long Hill. To the north, the landscape levels out to form a coastal plain towards Bray. To the south, the river valley forms a plateau towards Roundwood.
- 1.18 The nearest residential properties to the application site are Kilmac Farm, Bellevue Cottage and Sugar Loaf Farm, all of which occur immediately to the south. The lands to the west of the R755 Regional Road comprise a mix of agricultural grassland and scrubland.
- 1.19 The surrounding area is rural and generally comprises agricultural enterprises or small rural based enterprises interspersed with occasional isolated residential properties or small residential clusters, principally along the local road network.
- 1.20 The village of Kilmacanogue is located approximately 2.3km to the north-east of the application site, largely on the western side of the N11 National Primary Road. There are residential clusters and housing estates, a number of retail businesses, offices and a business park located in the village. Social infrastructure in the village includes the local church and graveyard, St. Mochanog's National School, Kilmacanogue GAA club (at Pairc Fitsimon) and soccer club.
- 1.21 The most notable infrastructure elements in the vicinity are the N11 dual carriageway linking Dublin and Wexford and the high voltage (220kV) cables which run north-south through the village, along the eastern flanks of the Sugar Loaf.
- 1.22 The principal tourist attractions in the area are Powerscourt House and Gardens, Powerscourt Waterfall and the village of Enniskerry. Most of these attractions are located some distance from the proposed recovery facility and are well screened by intervening topography, vegetation and/or development.
- 1.23 The Great Sugar Loaf is an isolated conical shaped hill of erosion resistant metamorphic rock (quartzite) which extends up to 501m above sea level. Given its distinctive conical shape, its isolation from other hills and its steep slopes, it forms a locally prominent landscape feature and is of some local

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historical and cultural significance. The established walking paths around the Great Sugar Loaf and the Wicklow Way are notable public amenities in the local area.

Local Road Network

- 1.24 Calary Quarry is located approximately 7km south of Bray, Co. Wicklow. It is accessed via the N11 National Primary Road, a grade separated interchange at Kilmacanogue village and a section of the R755 Regional Road which runs approximately 3.8km west of the N11 junction, through Kilmacanogue village.
- 1.25 The configuration of public road network in the vicinity of the application site is shown on the extract from the 1:50,000 scale Ordnance Survey Discovery series map of the area in Figure 1-1.
- 1.26 The N11 is of dual carriageway construction from Kilmacanogue north to the M11 / M50 Motorway junction at Shankill, Co. Dublin. Following the completion of the N11 Rathnew to Arklow Road Improvement Scheme in 2015, a dual carriageway now also extends south as far as Clogh, Co. Wexford. The expected completion of the M11 Gorey to Enniscorthy PPP Scheme in late 2019 or early 2020 will see the length of dual carriageway extended by a further 27km to south of Enniscorthy, Co. Wexford.
- 1.27 The R755 Regional Road is of single carriageway construction and climbs west of Kilmacanogue village, before turning south to run along the western flank of the Great Sugar Loaf and continuing on to the villages of Roundwood and Laragh, Co. Wicklow.
- 1.28 The R760 Regional Road is another road of single carriageway construction which runs initially south from Enniskerry before turning east and terminating at a junction with the R755 approximately 2.1km north of the application site. It is one of the main access routes to Powerscourt House and Powerscourt Waterfall, two significant tourist attractions in north Co. Wicklow.
- 1.29 A minor county road branches south of the R760, approximately 0.7km west of its junction with the R755. This local road travels south over Long Hill, on the opposite side of the Killough River valley to the R755 and continues toward Glasnomullen and onto Roundwood.
- 1.30 Planning permission for upgrading of the existing site access at Calary Quarry was previously secured in 2008 on foot of a planning application for continued operation of Calary Quarry (Planning Permission Ref. No. 06/6189 / An Bord Pleanála Ref. No. PL27.224400). If planning approval is obtained for the proposed inert soil waste recovery, upgrading work to the existing site access will be undertaken prior to the commencement of waste recovery activities.

LAND OWNERSHIP

- 1.31 Roadstone's land interest at Calary Quarry currently extends to 25.4 hectares and is shown edged blue on Figure 1-2. The application site extends to 9.1 hectares, just over one-third of the total area, and is shown edged red in Figure 1-2.

THE APPLICANT

- 1.32 Roadstone Ltd. was originally founded by the Roche Brothers in the 1930's and became part of Cement Roadstone Holdings (CRH) plc in 1970, following the merger of Roadstone and Cement Ltd. The present day company was formed in 2009 by the amalgamation of CRH's three construction materials businesses in Ireland, Roadstone Dublin Ltd., Roadstone Provinces Ltd. and John A. Wood Ltd. The company is Ireland's leading supplier of aggregates, construction and road building materials and employs several hundred people at 65 locations throughout the country.
- 1.33 Although Roadstone's principal business interest is in rock extraction and manufacture of building materials and products, it is currently backfilling and restoring a small number of former quarries using imported inert soil waste and operating construction and demolition waste recycling facilities at several of its locations across the State.
- 1.34 Within the Greater Dublin Region, Roadstone currently operates an EPA licensed inert soil / C&D waste recovery facility at Fassaroe, west of Bray (Waste Licence Ref W0269-01). It also operates a permitted soil recovery facility and construction and demolition waste recovery facility at two separate locations within the Belgard Quarry Complex, near Tallaght.
- 1.35 In January 2015, the Environmental Protection Agency (EPA) issued a waste licence to Roadstone in respect of a soil recovery facility at Huntstown Quarry, near Finglas in North Dublin (Ref. No. W0277-01). This facility commenced operation in October 2015, following approval of a number of pre-commencement reports and submissions. The EPA issued a waste licence in respect of another facility at Milverton Quarry, near Skerries, in June 2015 (Ref. No. W0272-01). Preparatory works are currently under way to facilitate commencement of soil recovery activities at this location in 2017.
- 1.36 Roadstone is committed to achieving and maintaining industry leading environmental standards. To this end, the company has established, and actively implements, an in-house Environmental Management System (EMS) at all its established waste recovery locations. The EMS has achieved external accreditation to ISO 14001 standard and is subject to audit on an annual basis. Roadstone envisages that an EMS will be developed and implemented for planned backfilling and restoration activities at Calary Quarry.

PLANNING HISTORY

- 1.37 The quarry at the application site was originally operated by Wicklow County Council (the Council) prior to 1st October 1964. Roadstone Limited commenced quarrying at the application site in 1973. Planning permissions and consents relating to past development at the application site are listed in Table 1-1 below.

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**Table 1-1
Planning Permission History**

PLANNING REF. NO.	DEVELOPMENT DESCRIPTION	DECISION
77/1426	Change to quarry entrance	Granted
93/638	Retention of existing toilet facilities and septic tank	Granted
QY31	Section 261 Quarry Registration (Review of Planning Status)	Planning Application and EIS Required
06/6189 & PL 27.224400	Operation of existing quarry (11.3 ha) and future extraction area (6.0 ha) within overall application area of 17.3ha. The development comprises phased extraction of rock using conventional blasting techniques, processing of the material using mobile crushing and screening plant, construction of landscaped screening berms, phased restoration of the quarry and all other associated site works and ancillary activities. Retention of existing site office / canteen (31sqm), changing room (6 sqm), office / toilets (14.5 sqm), stores 3 No. (total 65 sqm), shower room / toilet (14.5 sqm), lunch room (18.5 sqm), ESB sub-station (10.6 sqm), fuel storage area, settlement tanks, wheelwash and effluent treatment system	Existing quarry granted. Proposed extension refused.
08/1650 & PL 27.234495	Extension of 4.5 ha to existing Calary Quarry (Quarry Ref No. QY/13) comprising extraction of rock using conventional blasting techniques, processing of the material using mobile crushing and screening plant within the quarry area; the construction of landscaped screening berms; restoration of works; and all other associated site works and ancillary activities. An Environmental Impact Statement (EIS) was also submitted.	Refused
WPL87 & 27.WW.378	Effluent Discharge Licence	Granted
Section 261A	Review of Quarry Compliance with the EU EIA and Habitat Directives	Substitute Consent Not Required

Section 261 Registration (QY/31)

1.38 As was required under Section 261 of the Planning and Development Act of 2000, Roadstone's activities at Calary Quarry were formally registered with Wicklow County Council (Ref. No. QY/31) in 2005.

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- 1.39 Having reviewed the information provided to it as part of the registration process, Wicklow County Council ordered, by notice dated 21 April 2006 that Roadstone should submit a planning application to it (accompanied by an Environmental Impact Statement) which provided for continuation of extraction activity at the site.

Planning Ref 06/6189

- 1.40 In response to the direction issued under Section 261, Roadstone submitted an application for planning permission to Wicklow County Council for the continued use of the established quarry (existing quarry of 11.3ha, retention of existing site office / canteen, changing room, office / toilets, 3 No. stores, shower room / toilet, lunch room, ESB substation, fuel storage area, settlement tanks, wheelwash, effluent disposal system and improvements to the existing site entrance) and for a 6 ha. extension.
- 1.41 The application was submitted in September 2006 in accordance with the requirements of Section 261(7) of the Planning and Development Act and was accompanied by an EIS.
- 1.42 In June 2007, Wicklow County Council decided to grant permission for the established quarry operation, subject to 30 No. conditions. These conditions addressed, *inter alia*:
- the phasing and restoration of the quarry development;
 - the storage of topsoil;
 - surface and ground water;
 - dust management and monitoring;
 - monitoring of noise and vibrations;
 - environmental monitoring and management.
- 1.43 However, the application for an extension to the quarry was also refused by the Council in June 2007, for reasons relating to the effect of the extension on existing visual and tourism amenities.
- 1.44 The decision of Wicklow County Council was subsequently appealed by Roadstone to An Bord Pleanála (ABP Ref. PL 27.224400). The Board decided in February 2008 to remove two conditions relating to management of dust emissions and to modify three other conditions relating to noise, blasting and dust emissions. It also upheld the Council's decision to refuse planning permission for the proposed extension.

Planning Ref. No. 08/1650

- 1.45 Another application seeking planning permission for a smaller 4.5ha extension to the existing quarry was submitted to Wicklow County Council in September 2008.
- 1.46 As well as providing for a quarry extension and extraction of rock using conventional blasting techniques, the application also provided for the processing of materials using mobile crushing and screening plant within the quarry area, the construction of landscaped screening berms, the restoration of existing works and all other associated site works and ancillary activities. An EIS was included with the application.

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- 1.47 The planning officer's report notes that the following comments were received:
- Wicklow County Council Environment Department : no comment;
 - Wicklow County Council Roads Department : no objection subject to conditions / no significant effects on the N11;
 - National Roads Authority : refer to national policy;
 - Department of Environment, Heritage and Local Government : concerned by lack of detail regarding architectural heritage;
 - Eastern Regional Fisheries : concerned about potential effects on Killough River.
- 1.48 The planning application for the smaller quarry extension was refused by Wicklow County Council in May 2009 on grounds that it would interfere and adversely impact an Area of Outstanding Natural Beauty and the Great Sugar Loaf, a landmark of significant landscape, amenity, cultural and tourism value.
- 1.49 The decision of the Local Authority was subsequently appealed by Roadstone to An Bord Pleanála (Ref. PL 27.234495). In April 2010, the Board upheld the decision of Wicklow County Council and refused the appeal due to the potential adverse effects on visual and tourist amenities.

Section 261A

- 1.50 Following a European Court Judgement against Ireland in 2008, which identified shortcomings in the State's transposition of the EU Environmental Impact Assessment (EIA) and Habitats Directives into Irish law, amending legislation ('Section 261A') was introduced via the Planning and Development (Amendment) Act of 2010 to ensure that the regulation and control of quarries had due regard to the requirements of the two Directives.
- 1.51 A review of the planning status of Calary Quarry was undertaken by Wicklow County Council in 2012 in accordance with the requirements of Section 261A inserted by the 2010 Act. Given that:
- development commenced prior to 1964;
 - planning permission was granted;
 - an EIS was completed;
 - the site was registered under Section 261,
- this review concluded that no further action was necessary to regularise the planning status of extraction related activities and achieve compliance with EU EIA and Habitats Directives and that there was no requirement to lodge an application for Substitute Consent to An Bord Pleanála.

Effluent Discharge Licence (Ref. No WPL87)

- 1.52 The application site currently holds an effluent discharge licence issued by Wicklow County Council, dated 7th October 2008, which provides for the discharge of treated trade effluent from the site water management system to the Killough River.
- 1.53 A number of conditions attaching to the discharge licence issued by the Council were appealed to An Bord Pleanála (Ref. 27.WW.378). The Board allowed the grounds for appeal and subsequently amended the conditions of the licence in December 2009.

Waste Permit (Ref. No ESS/15/8/12)

- 1.54 The existing planning permission at Calary Quarry provides for limited re-grading and planting of existing quarry side slopes. Some limited progressive restoration of the southern quarry slopes was undertaken by Roadstone in the years 2007 to 2009 using imported inert soil and stone, at a time when the quarry was still operational. These activities were controlled by a waste facility permit (Ref No. ESS/15/8/12) issued by Wicklow County Council which subsequently expired in 2010.

PLANNING CONTEXT

Wicklow County Development Plan (2010-2016)

- 1.55 The planning and development controls pertaining to the application site are those outlined in the current Wicklow County Development Plan (2010-2016) and the Rathdown (No. 2) District Plan which forms part of the main plan.
- 1.56 Map No. 1 of the Rathdown Plan indicates that the lands at Calary Quarry which are the subject of this planning application are located within an area delineated for a potential Special Amenity Area Order (SAAO), although it is understood local councillors rejected such a proposal in September 2011. All lands immediately north, east and south of the application site are included within this zonation, while the lands immediately west are designated as 'green belt' lands whose principal land use objective is '*to preserve and enhance the open nature of lands between settlements*'.
- 1.57 Section 13.1 of the plan states that the Council's waste strategy is '*to promote and facilitate best practice in prevention, re-use, recovery, recycling and disposal of all waste produced in the County in accordance with the Waste Management Hierarchy and the objectives of the Wicklow Waste Management Plan.*'
- 1.58 Section 13.8.5 of the plan identifies the requirements for development of construction and demolition waste recovery facilities. The plan states that applications for such development will only be permitted at appropriate locations subject to the following restrictions
- (i) *It shall be for the disposal of inert clean material only;*
 - (ii) *There shall be a proven need for the proposed development;*
 - (iii) *The proposed development shall be in accordance with the policies set out in the Wicklow Waste Management Plan 2006-2011;*
 - (iv) *The proposed development shall not be located on lands that have a negative impact on the surrounding landscape or near a designated Natura 2000 site, or which interferes with a protected view or prospect, a public right of way, an existing or planned piece of strategic infrastructure, or an important tourist site;*
 - (v) *A development shall not be permitted if it has a detrimental impact on the amenity of adjoining residents, by reason of unacceptable levels of traffic, noise, dust, lighting or other impact resulting from the operation of the facility;*

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- (vi) *A development shall not be permitted if it has a detrimental impact on the flora and fauna, ecology, ground and surface water, air quality, and geological / archaeological heritage of the area;*
- (vii) *The development does not result in the creation of a significant traffic hazard and the road network is suitable and has the capacity for anticipated traffic levels.*

1.59 It is considered that the proposal to establish an inert soil waste recovery facility in order to facilitate the backfill and restoration of Calary Quarry is fully consistent with the stated waste policy objectives outlined above in that it:

- (i) provides for re-use / recovery of inert soils for site restoration purposes;
- (ii) provides for establishment of a recovery facility in close proximity to major centres of economic activity in South Dublin and North Wicklow;
- (iii) is located within an existing quarry which effectively minimises potential detrimental impact on the surrounding human and natural environment.

The proposed backfilling and restoration of the quarry to its original heathland / grassland habitat will also have a positive impact on the surrounding landscape and on protected views toward the Great Sugar Loaf identified within the development plan.

1.60 The County Development Plan identifies a number of sites of geological and geomorphological interest in the vicinity of the application site, including

- (i) the weathered / scree slopes of the Great Sugar Loaf immediately upslope and east (CDP Ref. Nos. 72 and 74);
- (ii) Cambrian age (540 to 485m year old) microfossils in rock exposures in the Rocky Valley approximately 1.4km to the north along the R755 Regional Road (CDP Ref. No. 28) and
- (iii) The glacial overflow / meltwater channel through the Glen of the Downs, approximately 2.4km to the south-east (CDP Ref. No. 31).

1.61 There are no designated or proposed Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) within or contiguous to the application site and Roadstone's wider landholding. The nearest SACs are located at the Glen of the Downs, approximately 2.35km south-east of the site (at its nearest point), at the Wicklow Mountains, approximately 3.3km to the west and at Bray Head, approximately 5.2km to the north-east. The Wicklow Mountains is also designated an SPA and is the closest such to the application site.

1.62 The Great Sugar Loaf and its environs are designated as a proposed Natural Heritage Area (pNHA) under the Wildlife (Amendment) Act of 2000 (Site Code 001769). The western boundary of the proposed NHA extends up to and runs along the eastern boundary of the Roadstone property at Calary Quarry. As previously noted, although the current County Development Plan indicates that the Great Sugar Loaf is to be considered for a potential Special Amenity Area Order (SAAO), local councillors rejected this proposal in September 2011.

1.63 Thereafter, the nearest pNHAs to the application site are at Powerscourt Waterfall and at Powerscourt Woodland, both located approximately 2km to the west. Kilmacanogue Marsh, located along the western side of the N11 National Primary Road immediately south of Kilmacanogue, is approximately 2.25km north and east of the application site. The SACs at the Glen of the Downs and Bray Head are both also designated as pNHA's.

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- 1.64 There are no tree preservation orders in place for any trees or woodlands in the vicinity of the site. The County Development Plan indicates that the nearest tree preservation order provides for the protection of trees located in the grounds of the Avoca Handweavers enterprise to the north of Kilmacanogue village, along the western side of the N11. A woodland, identified as Quill Wood, at the southern end of Kilmacanogue village is also listed for preservation by the County Development Plan.
- 1.65 Records held by the National Monuments Service of the Department of Environment, Heritage and Local Government indicate that there are no national monuments located within or immediately adjacent to Roadstone's property at Calary Quarry.
- 1.66 The closest Recorded Monument to the application site is an enclosure in Ballyremon Commons townland (Ref. No. WI007-045), approximately 600m south-west of the application area. It is identified as a deserted, possibly medieval settlement. There are several other monuments identified nearby, within the same townland, including a mound (Ref. No. WI070-042), a barrow (Ref. No. WI070-043) and another deserted settlement (Ref. No. WI007-044).
- 1.67 There are two hilltop cairns (Ref. No. WI007-070 and WI070-07001) of approximately 7m and 15m diameter respectively located 800m north and east of the application site boundary, at an elevation of approximately 400 to 450mOD, on the north-eastern shoulder of the Sugar Loaf. These monuments provide commanding views of the coastline to the east and Bray Head to the north-east.
- 1.68 There are no protected structures identified in the current Wicklow County Development Plan within or immediately adjacent to the application site at Calary Quarry. The closest protected structures to the site are located along the R755 Regional Road and in Kilmacanogue village and comprise
- (i) a hexagonal post-box in Rocky Valley, in Glencormick South townland (CDP Ref. No. 07-03, National Inventory of Architectural Heritage (NIAH) Ref. No. 16400710);
 - (ii) a ruined church, known as Kilmacanogue Old Church, located in Kilmacanogue village (CDP Ref. No. 07-08) and
 - (iii) St Mochoemog's Catholic Church in Kilmacanogue village (CDP Ref. No. 07-09 and NIAH Ref. No. 16400708).
- 1.69 Both the post-box in Rocky Valley and St Mochoemog's Catholic Church are classified by the NIAH as being of regional significance and importance. The nearest Architectural Conservation Area is Enniskerry village, located approximately 4.4km to the north of the application site.

Wicklow County Council Draft Development Plan 2016 -2022

- 1.70 Wicklow County Council is currently in the process of reviewing the Wicklow County Development Plan for 2010-2016 and preparing a new Wicklow County Development Plan for the period 2016-2022. A 'Pre Draft Consultation' exercise was held by the Council in late 2014 and subsequent to this a draft County Development Plan ('Draft CDP') for the period 2016-2022 was placed on public display between November 2015 and February

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2016. Feedback on the draft plan arising from the public consultation is currently being considered by the Council.

- 1.71 The vision for the County set out in the draft CDP is : *“For County Wicklow to be a cohesive community of people enjoying distinct but interrelated urban and rural environments, where natural surroundings and important resources are protected, where opportunities abound to live and work in a safe atmosphere, allowing people to enjoy the benefits of well paid jobs, a variety of housing choices, excellent public services, ample cultural and leisure opportunities and a healthy environment”.*
- 1.72 In relation to waste management, the draft CDP notes that the Council’s strategy is *“To promote and facilitate best practice in prevention, re-use, recovery, recycling and disposal of all waste and environmental emissions produced in the County”.*
- 1.73 In relation to solid waste, the text states that *“It is the policy of the Council, as set out in the Regional Waste Management Plan, to:*
- *prevent or minimise the production of waste in the first instance;*
 - *reduce, re-use and recycle to the maximum extent possible;*
 - *endeavour to recover energy from waste where possible; and*
 - *ensure the efficient and safe disposal of any residual waste.*
- 1.74 The plan also identifies specific objectives relating to solid waste management:
- *“WE1: To require all developments likely to give rise to significant quantities of waste, either by virtue of the scale of the development or the nature of the development (e.g. one that involves demolition) to submit a construction management plan, which will outline, amongst other things, the plan for the safe and efficient disposal of waste from the site.*
 - *WE3: To facilitate the development of existing and new waste recovery facilities and in particular, to facilitate the development of ‘green waste’ recovery sites.*
 - *WE6: To facilitate the development of sites, services and facilities necessary to achieve implementation of the objectives of the Regional Waste Management Plan”.*
- 1.75 In relation to development in AONBs, the Draft CDP includes the stated objective (NH48) *“Any application for permission in the AONB which may have the potential to significantly adversely impact the landscape area shall be accompanied by a Landscape / Visual Impact Assessment, which shall include, inter alia, an evaluation of visibility and prominence of the proposed development in its immediate environs and in the wider landscape, a series of photos or photomontages of the site / development from clearly identified vantage points, an evaluation of impacts on any listed views / prospects and an assessment of vegetation / land cover type in the area (with particular regard to commercial forestry plantations which may be felled thus altering character / visibility). The Assessment shall demonstrate that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape and the nature of the designation.”*
- 1.76 However, the draft CDP also includes the following policy objective NH49 *“To resist development that would significantly or unnecessarily alter the natural*

INTRODUCTION 1

landscape and topography, including land infilling / reclamation projects or projects involving significant landscape remodelling, unless it can be demonstrated that the development would enhance the landscape and / or not give rise to adverse impacts.” (emphasis added).

- 1.77 It is considered that the proposed recovery of soil and stone in the backfilling and restoration of the existing quarry void at Calary Quarry are consistent with the stated objectives of the draft County Development Plan, particularly with regard to draft policy objective NH49 and the objective to facilitate re-use of waste to the maximum extent possible.

Eastern Midlands Regional Waste Management Plan

- 1.78 Wicklow is one of several counties in the Eastern Midland waste region of Ireland which is covered by the Eastern Midland Waste Management Plan (2015-2021) which published by Dublin City Council (the lead Local Authority for the plan) in May 2015.
- 1.79 Section 7.3 of the plan addresses ‘priority waste’ streams, including construction and demolition waste. It notes an increase in construction related activity during 2014 and emphasises the importance of ensuring that appropriate processing facilities are in place to facilitate increased reuse, recycling and recovery of all C&D waste streams.
- 1.80 Section 11.2.2 of the plan presents an overview of construction and demolition waste management activities within the region. It identifies that in 2012, 41% of all recorded C&D waste collected and managed in the region (1.3 million tonnes of a total of 3.25 million tonnes) comprised inert soil and stones. This volume was generated at a time which corresponded with possibly the lowest point of the downturn in construction related activity following the Global Financial Crisis of 2008.
- 1.81 Section 11.2.2 notes a sharp decrease in the number of operational landfills in recent years. It also highlights growing awareness of the ecological and biodiversity value of low-lying wetlands and marginal agricultural land which were backfilled or reclaimed using construction and demolition wastes in the past and comments that at many of these sites, the primary activity appears to have been deposition of waste rather than land improvement (also known as ‘sham recovery’). In view of these trends and the likelihood that fewer of these facilities or sites will be available as outlets for C&D waste than in the recent past, the plan signals that alternative recovery options will need to be provided to facilitate recovery of C&D wastes in the years ahead.
- 1.82 The plan also raises the question as to whether or not the placement of inert waste at many of the infill sites used in the past is an appropriate land use strategy or indeed the best use of a potentially recyclable material, noting that quarries in particular often require large quantities of soil material to fill voids or use it for remediation and/or landscaping purposes.
- 1.83 It is considered in light of the above that the proposed recovery of soil and stone waste in the proposed backfilling and restoration of the existing quarry void at Calary broadly complies with the policy objectives for C&D waste set out in the current waste management plan for the Eastern Midland Region.

National Waste Report

- 1.84 The latest available national dataset in respect of construction and demolition waste streams is presented in the National Waste Report for 2011 published by the Environmental Protection Agency. The report indicates that a total of 3,003,691 tonnes of construction and demolition waste was recorded as being produced and collected in Ireland in that year, making it the single largest source of waste generated in the State. The report further indicates that of the total volume collected, approximately 2,498,946 tonnes was managed at authorised waste facilities, with approximately 500,000 tonnes of the collected construction and demolition waste left unaccounted for.
- 1.85 No data on construction and demolition waste is presented in the latest National Waste Report (for 2012) published by the EPA in 2014. It is inferred from this, and from acknowledged discrepancies between the amount of C&D waste collected and managed at authorised facilities (in 2011) that there is some weakness in collection and collation of national C&D waste statistics and possibly also some under-reporting (or non-reporting) of C&D waste generation, handling, transfer and its ultimate disposal or recovery. This in turn would suggest that the requirement for soil / C&D waste recovery facilities is greater than might otherwise be suggested by official statistics.

NEED FOR THE DEVELOPMENT / PLANNING GAIN

- 1.86 Backfilling of Roadstone's former quarry at Fassaroe, near Bray, is almost complete. In light of this, Roadstone is now seeking planning permission and a waste licence to develop a replacement soil recovery facility at Calary Quarry, near Kilmacanogue Co. Wicklow, approximately 7km south of Fassaroe along the N11 National Primary Road.
- 1.87 It is considered that the successful backfilling of the quarry at Fassaroe, during an extended period of depressed activity in the construction sector between 2009 and 2015
- (i) demonstrates that there is stable and sustainable demand for an authorised soil recovery facility in North Wicklow and
 - (ii) establishes the planning requirement for a replacement facility in North Wicklow.
- 1.88 The proposed backfilling at Calary Quarry will provide for the restoration of an existing quarry void in an Area of Outstanding Natural Beauty and restoration of the landscape to its original pre-extraction condition.
- 1.89 Backfilling the existing void will also provide for better protection of the underlying groundwater resource, which is currently extremely vulnerable due to the absence of any protective soil cover.

CONSIDERATION OF ALTERNATIVES

- 1.90 Clearly, having regard to the policy objectives outlined in the County Wicklow Waste Management Plan 2006-2011, the development of waste recovery activities for inert soils and/or inert construction and demolition waste at former quarries must, by definition, be restricted to locations where such quarries occur.

INTRODUCTION 1

- 1.91 The Applicant asserts that the application site offers clear environmental and economic advantages. Given its strategic location close to high capacity national road infrastructure (the N11 dual carriageway), it is readily accessible from a wider region area which includes large urban population centres in South County Dublin, Dun-Laoghaire Rathdown and North Wicklow.

DIFFICULTIES ENCOUNTERED WITH EIS COMPILATION

- 1.92 This Environmental Impact Assessment was compiled on the basis of published regional and local data and site-specific field surveys. No difficulties were encountered in compiling the required information.

ENVIRONMENTAL IMPACT ASSESSMENT SCREENING

- 1.93 The proposed development at the application site falls within the category of development listed as requiring EIA under Schedule 5 – Part 2 (11)(b) of the Planning and Development Regulations, 2001:

“Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule”

- 1.94 On the basis that the annual average soil intake will be between c. 225,000 and 275,000 tonnes and up to a maximum of 300,000 tonnes, it is considered that an EIA is required in respect of the proposed development.

AIMS OF THE ENVIRONMENTAL IMPACT STATEMENT

- 1.95 An Environmental Impact Statement (EIS) is defined as ‘a statement of the effects, if any, which the proposed development, if carried out, would have on the environment’¹. As such, it is a systematic evaluation of the positive and negative impacts of a project on both the natural and human environments.

- 1.96 The principal objectives of an Environmental Impact Statement are to:

- Identify and / or predict the significant impacts of a development.
- Identify what mitigation measures should be incorporated into the development to eliminate or reduce the perceived impacts.
- Interpret and communicate the above information on the impact of the proposed development, in both technical and non-technical terms.
- Assist the local planning authority in the decision making process with respect to the associated planning application.

FORMAT OF THE ENVIRONMENTAL IMPACT STATEMENT

- 1.97 Roadstone Ltd. appointed SLR Consulting Ireland to prepare this Environmental Impact Statement (EIS) in support of applications for planning permission and a waste licence in respect of the proposed backfilling of Calary Quarry at Kilmacanogue, Co. Wicklow. The EIS has been prepared in accordance with the Environmental Protection Agency (EPA) Guidelines (2002 and 2003).

¹ SI No. 349 of 89 (Art 3 (1))

INTRODUCTION 1

- 1.98 Chapters 1 and 2 of the EIS comprise an introduction to, and detailed description of, the proposed development and have been prepared by SLR Consulting Ireland in consultation with Roadstone Ltd.
- 1.99 Chapters 3 to 14 of the EIS provide details of existing environmental receptors, and for each receptor, provides an assessment of the potential environmental impact of the proposed development and details of mitigation measures, where these are considered necessary.
- 1.100 The associated references, plates, figures and appendices (if applicable) are provided at the end of each Chapter, numbered 1 to 14. A Non-Technical Summary of the Environmental Impact Statement, is provided as a separate and self-contained document.

CONTRIBUTORS

- 1.101 The SLR personnel and specialist contributors who have been involved in the preparation of this Environmental Impact Statement (EIS) are identified in Table 1-2 below:

**Table 1-2
List of Contributors**

TOPIC	CONTRIBUTOR	COMPANY
Introduction	Aoife Byrne BSocSc(int), MRUP, MRTPI, MIPI Derek Luby BE, MSc, DIC, MIEI	SLR Consulting Ireland
Description of Development	Derek Luby BE, MSc, DIC, MIEI	SLR Consulting Ireland
Human Beings	Aoife Byrne BSocSc(int), MRUP, MRTPI, MIPI	SLR Consulting Ireland
Flora and Fauna	Steve Judge BSc (Hons)	SLR Consulting Ireland
Soils and Geology	Dr. John Kelly BSc., PhD, PGeo	SLR Consulting Ireland
Water	Dominica Baird BSc. (Hons), MSc.	SLR Consulting Ireland
Climate and Air Quality	Aldona Binchy MSc. (Eng)	SLR Consulting Ireland
Noise and Vibration	Aldona Binchy MSc. (Eng)	SLR Consulting Ireland
Landscape	Anne Merkle Dipl. Ing (FH) MILI	SLR Consulting Ireland
Cultural Heritage	Dr. Charles Mount MA	Consultant
Material Assets	Aoife Byrne BSocSc(int), MRUP, MRTPI, MIPI	SLR Consulting Ireland
Traffic	Eoin Reynolds BE, CEng	NRB Consulting Enggs
Co-ordination of EIA	Derek Luby BE, MSc, DIC, MIEI	SLR Consulting Ireland

1.102 Each contributor has been fully briefed about the proposal and the background to it. They have also visited the site and are familiar with the local environment.

PRE-PLANNING CONSULTATIONS / EIS SCOPING

1.103 A pre-planning consultation report was prepared by SLR Consulting Ireland on behalf of Roadstone Ltd. in April 2015. The purpose of the report was to inform statutory and other consultees about the proposed development and of the topics to be covered in the EIA and described in the EIS.

1.104 A copy of the pre-planning document was forwarded to Wicklow County Council on 28th April 2015.

1.105 A pre-licensing consultation was also held with the Environmental Protection Agency on Wednesday 1st April 2015. This meeting discussed the process of making a waste licence application concurrently with a planning application and at the meeting, the Agency flagged the importance, from its perspective, of identifying, assessing and mitigating any potential soil and groundwater impacts and undertaking screening for appropriate assessment.

1.106 Following the pre-planning consultation meeting, other consultations and informal discussions were held by contributors in respect of their specialist topics. Feedback from these discussions is detailed in the relevant environmental chapters of this EIS together with details of any relevant archives and documentation held by State Agencies and organisations which were also consulted.

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FIGURES

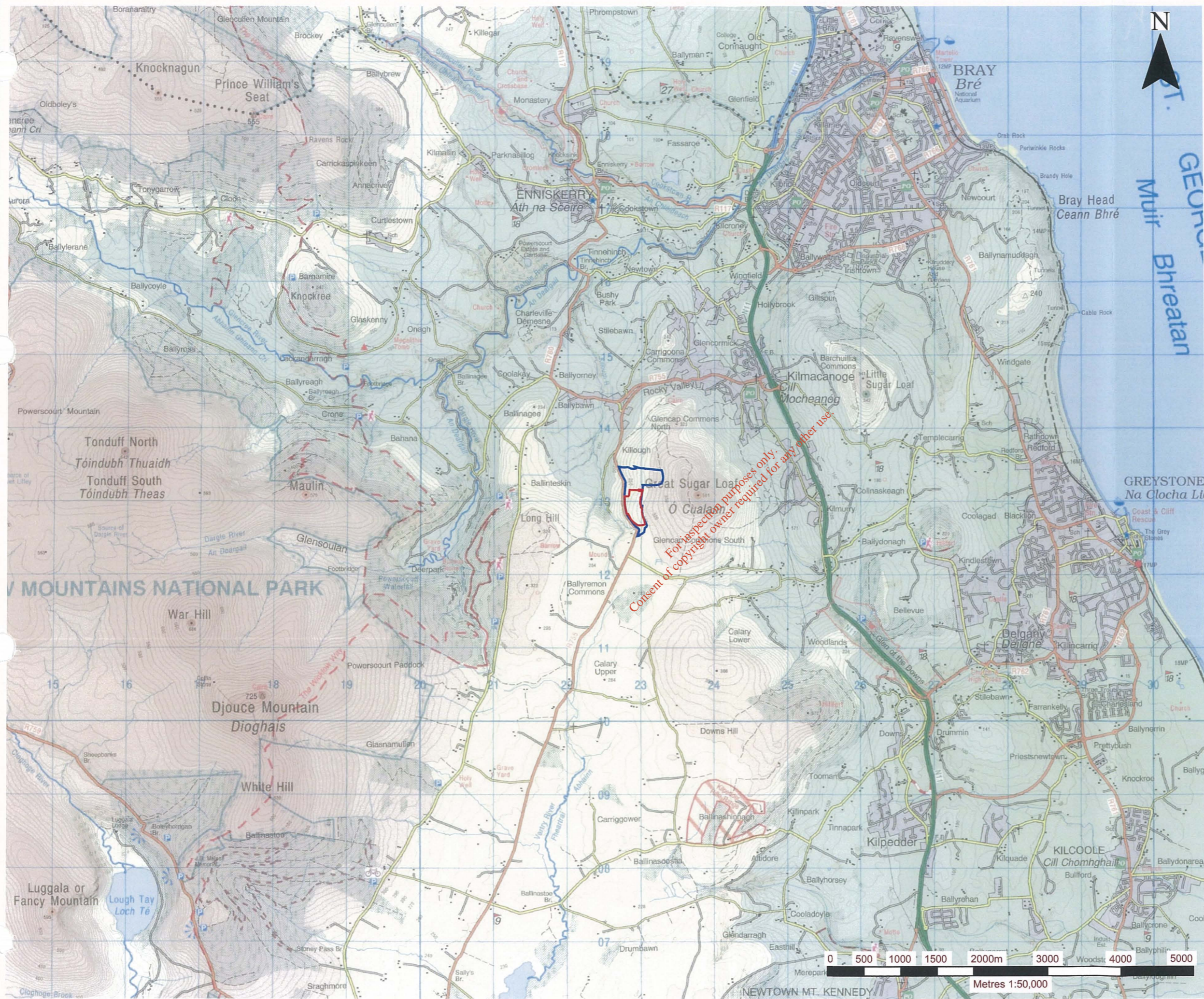
Figure 1-1
Site Location Map

Figure 1-2
Site Location, Site Notice and Surrounding Land-use

Figure 1-3
Aerial Photograph

Figure 1-4
Existing Site Layout Plan

00180.0010 - FIG_1-1_Site Location Map.dwg



NOTES

- 1. ORDNANCE SURVEY IRELAND LICENCE NO. SU 0000716 (C) ORDNANCE SURVEY IRELAND & GOVERNMENT OF IRELAND
- 2. MAPPING FROM ORDNANCE SURVEY DISCOVERY SERIES MAPPING - MAP NO'S 68, 69, 76 & 77

LEGEND

- ROADSTONE LIMITED LAND INTEREST (c.25.4 Hectares)
- PLANNING APPLICATION AREA (c.9.1 Hectares)

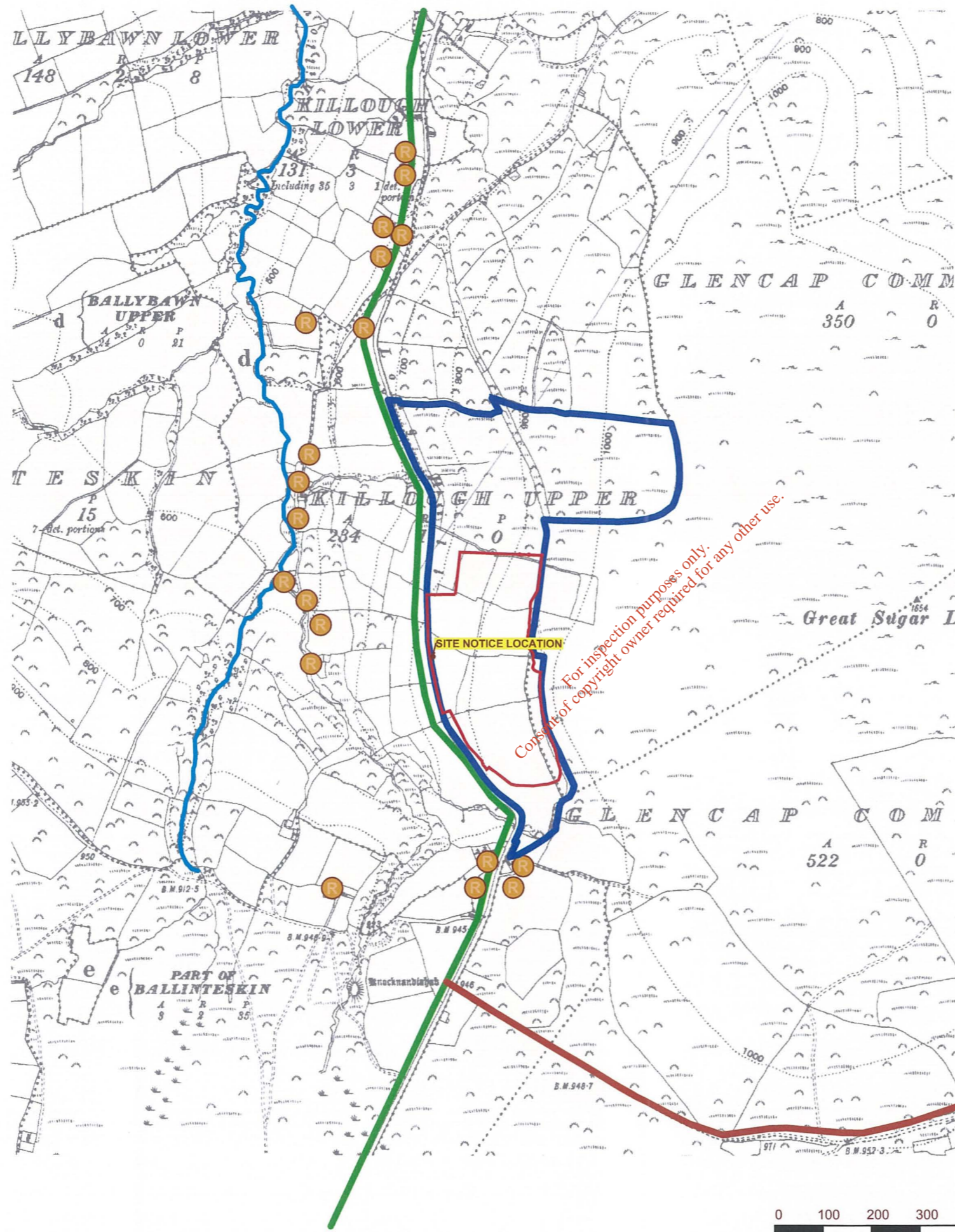
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SLR CONSULTING IRELAND
 7 DUNDUM BUSINESS PARK
 WINDY ARBOUR
 DUBLIN 14
 T: +353-1-2964667
 F: +353-1-2964676
 www.slrconsulting.com

ROADSTONE LIMITED
ENVIRONMENTAL IMPACT STATEMENT
INERT SOIL WASTE RECOVERY FACILITY
CALARY QUARRY,
KILMACANOGE, CO. WICKLOW
SITE LOCATION MAP

FIGURE 1-1

Scale: 1:50,000 @ A3 Date: MAY 2016








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NOTES

1. ORDNANCE SURVEY IRELAND LICENCE NO. SU 0000716 (C) ORDNANCE SURVEY IRELAND & GOVERNMENT OF IRELAND
2. MAPPING FROM ORDNANCE SURVEY 6INCH MAPPING

LEGEND

	ROADSTONE LIMITED LAND INTEREST (c.25.4 Hectares)
	PLANNING APPLICATION AREA (c.9.1 Hectares)
	REGIONAL ROAD (R755)
	KILLOUGH RIVER
	RESIDENTIAL PROPERTIES

SLR 

SLR CONSULTING IRELAND
7 DUNDUM BUSINESS PARK
WINDY ARBOUR
DUBLIN 14
T: +353-1-2964667
F: +353-1-2964676
www.slrconsulting.com

**ROADSTONE LIMITED
ENVIRONMENTAL IMPACT STATEMENT**

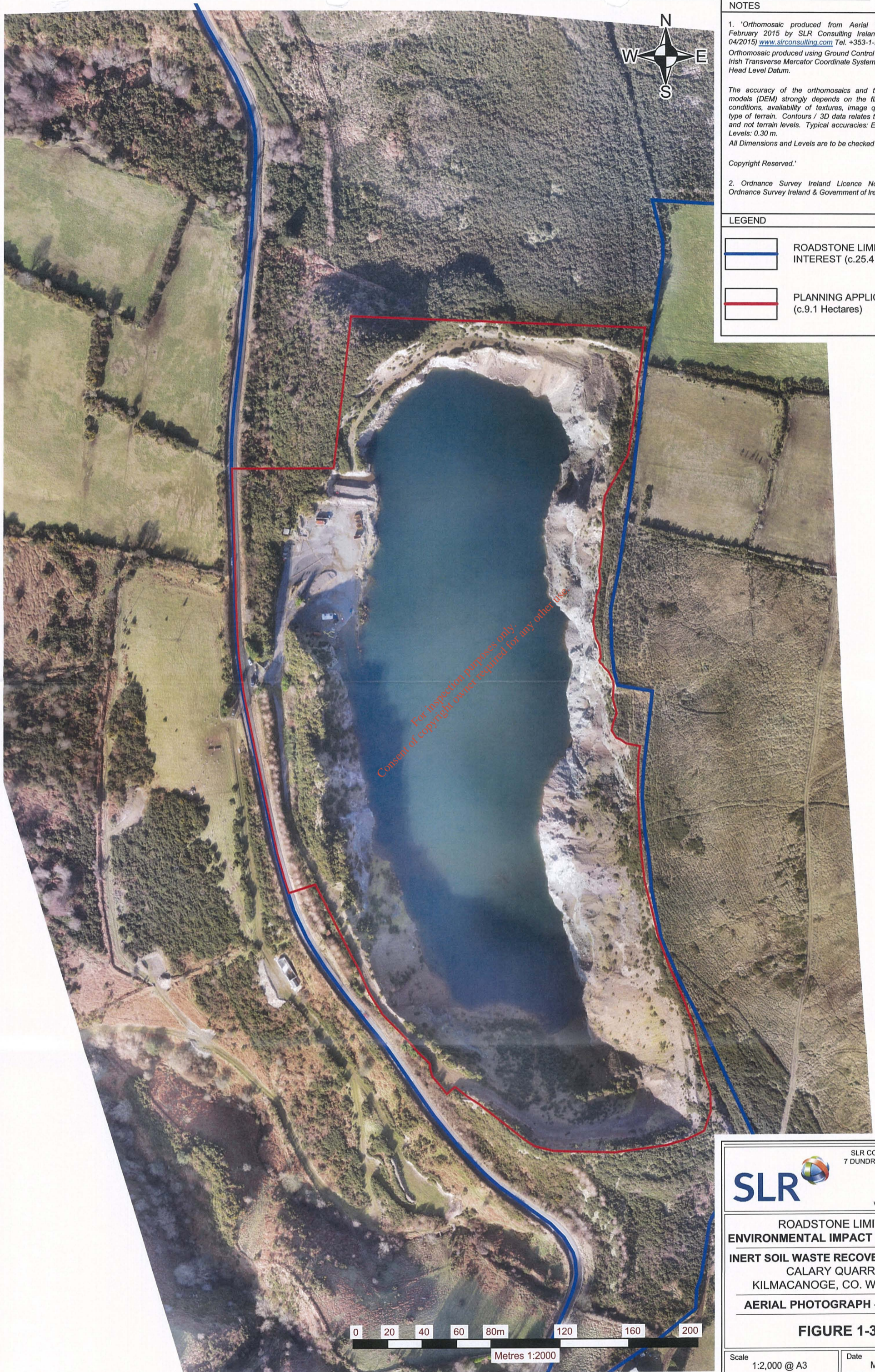
**INERT SOIL WASTE RECOVERY FACILITY
CALARY QUARRY,
KILMACANOGE, CO. WICKLOW**

**SITE LOCATION PLAN /
SITE NOTICE LOCATION**

FIGURE 1-2

Scale 1:10,000 @ A3	Date MAY 2016
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00180.00109.0.FIG_1-3.Aerial Image of Calary Quarry.dwg



NOTES


1. 'Orthomosaic produced from Aerial Photography flown February 2015 by SLR Consulting Ireland (IAA Permit No. 04/2015) www.slrconsulting.com Tel. +353-1-2964667.
Orthomosaic produced using Ground Control Points; Related to Irish Transverse Mercator Coordinate System and OS Malin Head Level Datum.

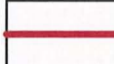
The accuracy of the orthomosaics and the digital elevation models (DEM) strongly depends on the flight height, lighting conditions, availability of textures, image quality, overlap, and type of terrain. Contours / 3D data relates to the surface model and not terrain levels. Typical accuracies: E: 0.05 m; N:0.05 m; Levels: 0.30 m.
All Dimensions and Levels are to be checked on site.

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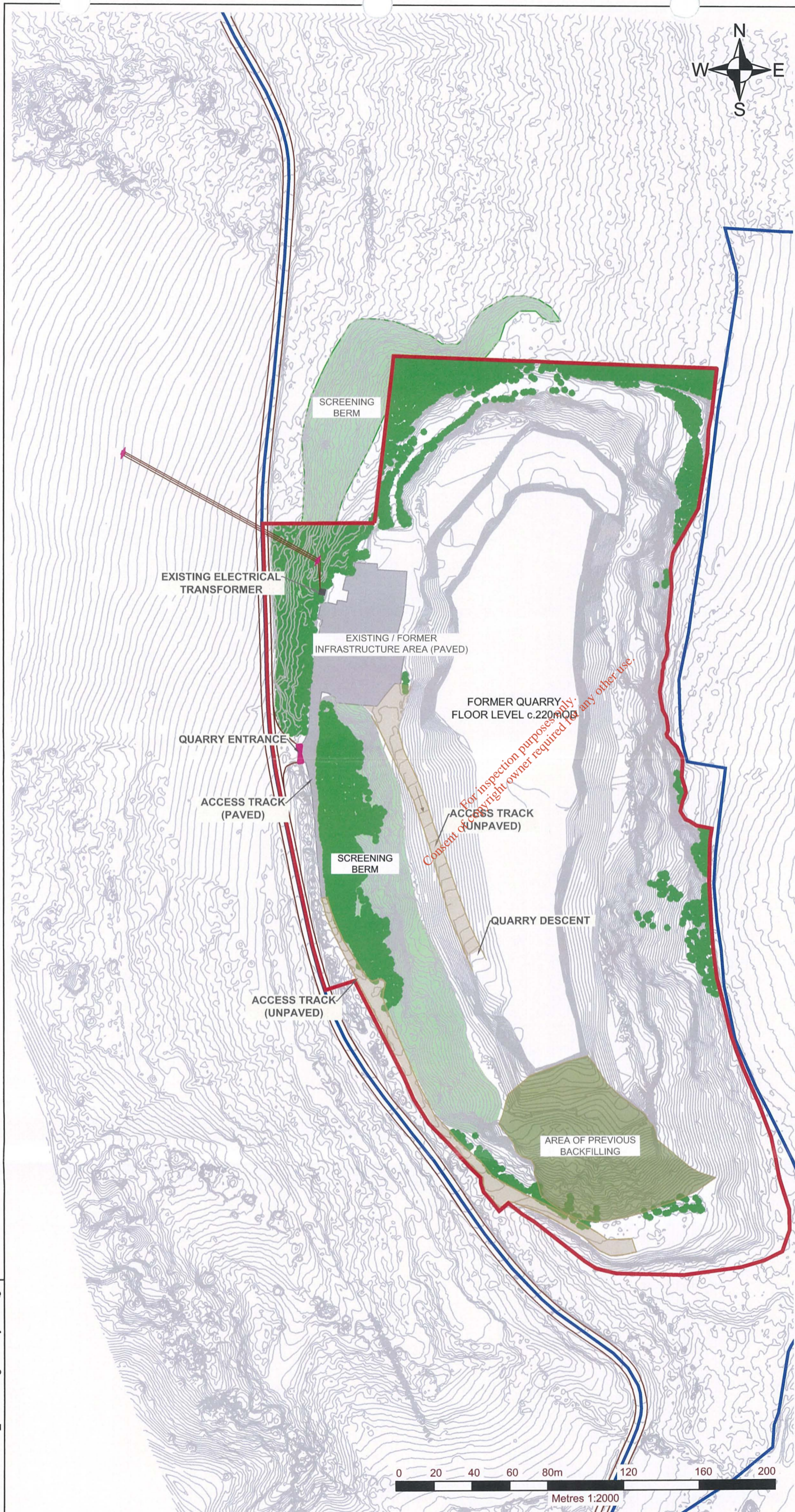
LEGEND

 ROADSTONE LIMITED LAND INTEREST (c.25.4 Hectares)

 PLANNING APPLICATION AREA (c.9.1 Hectares)

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	ROADSTONE LIMITED ENVIRONMENTAL IMPACT STATEMENT INERT SOIL WASTE RECOVERY FACILITY CALARY QUARRY, KILMACANOGE, CO. WICKLOW AERIAL PHOTOGRAPH - FEB 2015
FIGURE 1-3	
Scale: 1:2,000 @ A3	Date: MAY 2016



NOTES

1. 'Orthomosaic produced from Aerial Photography flown September 2015 by SLR Consulting Ireland (IAA Permit No. 04/2015) www.slrconsulting.com Tel. +353-1-2964667. Orthomosaic produced using Ground Control Points; Related to Irish Transverse Mercator Coordinate System and OS Malin Head Level Datum.

The accuracy of the orthomosaics and the digital elevation models (DEM) strongly depends on the flight height, lighting conditions, availability of textures, image quality, overlap, and type of terrain. Contours / 3D data relates to the surface model and not terrain levels. Typical accuracies: E: 0.05 m; N:0.05 m; Levels: 0.30 m. All Dimensions and Levels are to be checked on site.

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LEGEND

	ROADSTONE LIMITED LAND INTEREST (c.25.4 Hectares)
	PLANNING APPLICATION AREA (c.9.1 Hectares)

SCREENING BERM

EXISTING ELECTRICAL TRANSFORMER

EXISTING / FORMER INFRASTRUCTURE AREA (PAVED)

FORMER QUARRY FLOOR LEVEL c.220mOD

QUARRY ENTRANCE

ACCESS TRACK (PAVED)

ACCESS TRACK (UNPAVED)

SCREENING BERM

ACCESS TRACK (UNPAVED)

QUARRY DESCENT

AREA OF PREVIOUS BACKFILLING

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00180.00109.0.FIG_1-4.Existing Site Layout.dwg

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	ROADSTONE LIMITED ENVIRONMENTAL IMPACT STATEMENT INERT SOIL WASTE RECOVERY FACILITY CALARY QUARRY, KILMACANOGE, CO. WICKLOW EXISTING SITE LAYOUT
FIGURE 1-4	
Scale 1:2,000 @ A3	Date MAY 2016