

**DETAILS PURSUANT TO
CONDITIONS 5, 7 AND 14
MARFIELD QUARRY, PLANNING
PERMISSION C6/500/32/K/CMA**

Prepared for: Tarmac Limited

SLR Ref: 403-00088-00283
Version No: FINAL
September 2019



BASIS OF REPORT

This document has been prepared by SLR Consulting Limited with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Tarmac (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

MARFIELD QUARRY, PLANNING PERMISSION C6/500/32/K/CMA	1
1.0 INTRODUCTION	3
2.0 CONDITION 5.....	4
2.1 Phased Scheme of Working	4
2.2 Stripping of topsoil, subsoil and overburden	4
2.3 Temporary and/or permanent storage of topsoil, subsoil and overburden	5
2.4 Restoration	6
2.5 Disposal of silt	7
2.6 Timescale of extraction.....	7
3.0 CONDITION 7.....	8
3.1 Storage of material	8
3.2 Storage of chemicals, oil and hazardous materials	8
3.3 Future landscaping, maintenance and aftercare of the site	9
3.3.1 Open Water and Wetland Margins	9
3.3.2 Grassland.....	10
3.3.3 Hedgerows	10
3.3.4 Woodland.....	11
3.3.5 Maintenance and Aftercare	11
3.4 Provision of road and wheel cleaning facilities	12
4.0 CONDITION 14.....	13
4.1.1 Eastern boundary	13
4.1.2 Southern boundary.....	13
4.1.3 Western boundary.....	14
4.1.4 Northern boundary	14

DRAWINGS

- ME 5/1 – Working Phase Plan
- ME 5/2 – Entry Phase and Bunds
- ME 5/3 – Excavation of Phase 1
- ME 5/4 – Excavation of Phase 2

- ME 5/5 – Excavation of Phase 3
- ME 5/6 – Excavation of Phase 4
- ME 5/7 – Conveyor Crossing Details
- ME 6/1 – Restoration Plan
- ME 6/2 – Detailed Restoration Plan (Existing Site)
- ME 6/3 – Detailed Restoration Plan (Swinney Beck extension)
- ME 6/4 – Detailed Restoration Sections
- 10/2 – Working Phase Plan

1.0 Introduction

SLR Consulting Ltd (SLR) has been appointed by Tarmac to prepare details pursuant to Conditions 5, 7 and 14 relating to planning permission (ref C6/500/32/K/CMA) for the extension to Marfield Sand and Gravel Quarry connected by a conveyor tunnel under Leyburn Road (A6108), retention of the existing mineral processing plant and ready mix concrete plant and variation to the existing restoration scheme at Marfield Quarry, North Yorkshire (hereafter referred to as the Site).

This document is set out according to sections for each condition in numerical order, as follows:

- Condition 5 – scheme of working (extension area);
- Condition 7 – scheme of storage, phasing, landscaping and maintenance;
- Condition 14 – scheme of standoffs to boundaries (extension area).

This document should be read in conjunction with the further environmental information supplementary to the Environmental Statement contained within the:

- Supplementary Landscape and Visual Impact Assessment (March 2012);
- Supplementary Ecological Impact Assessment (September 2012); and
- Outline Ecological Restoration Plan and Additional Landscape Details (May 2013).

2.0 Condition 5

This section of the report sets out the proposed scheme of working within the extension area (Swinney Beck area).

Condition 5 states:

“Six months prior to the commencement of development in Phase 1 of the extension area, a detailed scheme shall be submitted to and approved in writing by the County Planning Authority covering the following matters in respect of working within the extension area: stripping of topsoil, subsoil and overburden; temporary and/or permanent storage of topsoil, subsoil and overburden including size and location and management of such stores; scheme of working including details of working depths, precise area of extraction, quantities, direction, timescale of extraction, disposal of silt and stand-off areas.”

2.1 Phased Scheme of Working

The precise area of extraction within the Swinney Beck extension area as shown on Drawing ME 5/1 is approximately 37.3ha. For the purposes of working, the proposed extension area is divided into 4 main phases, with an initial entry phase and formation of the initial storage bunds within Phase 1, commencing in the north-east, then progressing to the north-west, south-east and finishing in the south-west. The illustrations of progressive excavation and restoration are shown on Drawings ME 5/2 to ME 5/6. The standoff areas to the development are as described under condition 14, below.

The proposed extension area will be worked in the same way as the existing operations north of the Leyburn Road, utilising a loading shovel at the face loading onto a conveyor, which will transport material to the plant site. The conveyor route will cross the Leyburn Road through a steel-clad tunnel beneath the road, as shown on Drawing ME 5/7.

2.2 Stripping of topsoil, subsoil and overburden

The extension area is dominated by well drained, variably stony, loamy soils developed in a covering of medium textured glacial till over sands and gravels.

The proposed development will necessitate the stripping of soils in advance of the mineral extraction. All soils resources will be either temporarily placed into storage mounds within the Swinney Beck extension area or directly placed as part of progressive restoration.

All soil stripping, handling and storage operations will be carried out in accordance with MAFF's Good Practice Guide for Handling Soils, published in 2000, as follows:

- No topsoil shall be removed from the Site;
- All topsoil and subsoil will be stripped separately, but as two single units;
- All soils will be handled when in a dry and friable condition by monitoring the lower plastic limit before works commence;
- Topsoil and subsoil will be stored “like on like”, so that for example, subsoil storage areas will be stripped of topsoil in advance;
- Loose-tipping and grading of soil materials, to specified restoration profiles, will be carried out using tracked excavator or low ground pressure bulldozer;
- No heavy wheeled earthmoving vehicles or machines to run over un-stripped or replaced soils to minimise compaction;
- Following mechanical de-compaction, all stones and rocks exceeding 0.15m in any dimension and other deleterious material will be removed from the topsoil; and

- Soils will be placed early enough in the year to allow grassland vegetation to be established before the winter and reduce the risk of erosion.

The proposed working phases will incorporate progressive restoration, involving annual programmes of soil stripping and replacement. The details of the stripping and restoration programme will be reviewed on an annual basis.

The mineral extraction area west of Leyburn Road will generate a total of 894,000m³ of restoration material, based on the following average thicknesses:

- 106,000m³ of topsoil (a nominal thickness of 0.27m); and
- 788,000m³ of subsoil (a nominal thickness of 2m).

The mineral extraction and final restoration landforms have been modelled in 3D using LSS to confirm that a materials balance can be achieved at the Site, based on the total available restoration material described above.

It is proposed that a 1m thick restoration soil layer will be placed within all disturbed areas, with the surplus material used as general fill to create the lake margins and embankments. Restoration profiles will be as follows:

- 0.1m topsoil over 0.7m of subsoil over 0.2m topsoil within grassland, wetland and reedbed; and
- 0.3m of topsoil over 0.7m subsoil within the route of the conveyor, which will be restored to agricultural land.

Intensively managed agricultural soils tend to have much higher nutrient levels than those in semi-natural habitats¹. This can lead to a dominance of vigorous competitive species and reduce the wildlife value and diversity of species. The placement of a thin layer of topsoil over subsoil (and with a layer of topsoil beneath this) within the nature conservation habitats will seek to dilute this potential concentration of soil nutrients. The soil nutrient levels within the resulting substrate will therefore encourage the regeneration of a more diverse range of vegetation. This will be a different approach to the areas of agricultural restoration along the conveyor route.

2.3 Temporary and/or permanent storage of topsoil, subsoil and overburden

Topsoil stores will not exceed three metres in height and subsoil/overburden stores will not exceed five metres in height.

Drawing ME 5/2 shows the initial entry phase within part of Phase 1 to establish an excavation area of 6.3ha within the extension area and to provide access. This will involve the stripping of 127,000m³ of topsoil, subsoil and overburden and stockpiling into temporary bunds located along part of the northern (1.2ha footprint) and eastern boundaries (3.3ha footprint). These bunds will provide acoustic and visual screens and have been positioned to avoid raising levels within the Swinney Beck potential flooding areas.

The proposed conveyor route linking the existing quarry and the proposed extension area will also be prepared during the entry phase. A sump will be excavated close to the working face to provide a collection point and allow dewatering to take place. The sump will be created by excavating a low point within the base of the working area at around 90m AOD. A sump for dewatering will be created in each phase close to the working face so that the workings remain dry.

Drawing ME 5/3 illustrates the proposed excavation of the remaining 4.4ha of Phase 1, bringing the total area of working at this stage to 10.7ha. This will involve the stripping of a further 121,000m³ of topsoil, subsoil and overburden and stockpiling into temporary bund located along within the previously worked out entry phase

¹ White, G.J. and Gilbert, J.C. (eds) (2003) Habitat Creation Handbook for the Minerals Industry, The RSPB, Sandy

void (1.7ha footprint). The crest of this bund will be approximately 95m AOD and no higher than the existing ground level. The base of the working area in this phase will be at around 80m AOD.

Drawing ME 5/4 illustrates the excavation of Phase 2 extending the working area by a further 5.8ha. This will involve the stripping of 128,000m³ of topsoil, subsoil and overburden and direct placement into the previously worked out Phase 1 void, to final restoration levels. The restoration area will cover approximately 5ha. The base of the working area in this phase will be at around 89m AOD.

Drawing ME 5/5 illustrates the excavation of Phase 3 extending the working area by a further 10.5ha. This will involve the stripping of 280,000m³ of topsoil, subsoil and overburden and direct placement of part of the materials into the previously worked out Phase 2 void, to final restoration levels. The restoration area will be extended by approximately 5.5ha at this stage. Surplus material will be stockpiled into a temporary bund located within the previously worked out Phase 2 void. The base of the working area in this phase will be at around 76m AOD.

During Phase 3, a recharge trench will be excavated in the south east corner of the extension area to facilitate groundwater recharge. At this stage the soil storage mound will be reduced in area. At the end of working in this phase the trench will be backfilled to ensure 2m permanent mounding around the south-eastern corner, as per the approved restoration scheme.

Drawing ME 5/6 illustrates the excavation of Phase 4 extending the working area by a further 10.3ha. This will involve the stripping of 221,000m³ of topsoil, subsoil and overburden and direct placement into the previously worked out Phase 3 void, to final restoration levels. The restoration area will be extended by approximately 10.5ha at this stage. The base of the working area in this phase will be at around 81m AOD.

All temporary soil and overburden storage mounds will be grass seeded immediately following construction to provide a green cover and some assimilation with the surroundings.

As noted, the Site will be worked in a progressive manner to minimise the overall area of disturbance and this will allow for early areas of restoration and habitat creation. As such, any areas progressively formed to final restoration levels will also be grass seeded (even though subsequent final restoration water levels will cover anything below approximately 90m AOD).

2.4 Restoration

Restoration of the Site will be undertaken progressively as the workings take place and site-derived material is backfilled into the voids. Final restoration plans are shown on Drawing Numbers ME 6/2 (Detailed Restoration Plan (Existing Site Area)) and ME6/3 (Detailed Restoration Plan (Extension Area)).

Once all the parts of the Site have been worked out, all material from the temporary stockpiles will be recovered and used for final restoration. In addition, approximately 17,000m³ of topsoil and subsoil will be recovered as part of the minor reprofiling to create a 2ha spillway to connect the Swinney Beck and the new water body to provide additional flood storage capacity.

The proposed restoration scheme for the extension area consists predominately of an 18.7ha water body surrounded by 4.3ha wetland margins. Associated habitats will include rough grassland side slopes and lowland meadow (neutral grassland) which will be divided into fields by hedgerows to replicate the existing field boundary lines/pattern.

The proposed side slope embankments will typically be in the range of between 1:3 and 1:5 and with restoration water level at around 90mAOD.

Additional material will be placed in the standoff between the extraction limit and Site boundary in the south-eastern corner to raise levels from 90m AOD to minimum of 92m AOD to provide potential containment for the new restoration waterbody.

All topsoil and subsoil generated from working the proposed extension will be re-used within the proposed extension without recourse to import materials.

2.5 Disposal of silt

All silt will be disposed of within the existing Marfield Quarry. As a result, the extent of open water, wet grassland and reedbeds have been modified within the restoration scheme for the existing Marfield Quarry to reflect the additional silt volumes and raised levels in the quarry floor (and thus resulting in an increase in areas of drier grassland habitats).

As noted in the Outline Ecological Restoration Plan and Additional Landscape Details, April 2013, whilst an estimate of silt content is known from the previously worked areas, it is difficult to be precise about the future quantities of silt and resulting landform with the site; however as a general principle, it is proposed to form a variable profile at, or below the restoration water level to support reedbed, fen and shallow open water habitat. Ongoing monitoring of levels and volumes will be carried out as the development progresses and reviewed annually in conjunction with the CPA in accordance with Condition 29.

2.6 Timescale of extraction

It is anticipated that the current rate of extraction will be maintained throughout the duration of the proposed extension area at approximately 350,000 tonnes per annum. There will therefore be no change to the current level of activity at the Site. The proposed extension area will provide a further 4Mt.

Mineral working will be complete by 2030 and restoration complete by 2032 in accordance with Condition 2.

3.0 Condition 7

This section of the report sets out the proposed scheme of storage, phasing and maintenance of the Site. Condition 7 states:

“The development hereby permitted shall not be commenced until such time as a scheme for the:

- i) the storage of material;*
- ii) the storage of chemicals;*
- iii) the storage of oil;*
- iv) the storage of hazardous materials;*
- v) the proposed method of working;*
- vi) the proposed phasing of development;*
- vii) the proposed maintenance and aftercare of the site;*
- viii) future landscaping; and,*
- ix) the provision of road and wheel cleaning facilities*

has been submitted to, and approved in writing by, the County Planning Authority. Any such scheme shall be supported, where necessary, by detailed calculations; include a maintenance programme; and establish current and future ownership of the facilities to be provided. The scheme shall be fully implemented and subsequently maintained, in accordance with the timing/phasing arrangements embodied within the scheme, or any details as may subsequently be agreed, in writing, by the County Planning Authority.”

3.1 Storage of material

All sand and gravel extracted from the extension area will be transported by conveyor to the existing processing plant for processing. The existing processing plant and ancillary infrastructure will be retained throughout the duration of the working of the proposed extension area. This includes all of the stocking areas for as-dug, as well as finished product materials.

There may be a requirement to form short term as-dug stock piles within the extension area working void, however operator efficiencies will necessitate loading onto the conveyor as quickly as possible. The formation and excavation from stockpiles will be carried out in such a manner that the stockpiles are maintained in a stable condition at all times. There will be no storage of as-dug material around the boundaries of the site or on unstripped areas.

3.2 Storage of chemicals, oil and hazardous materials

All necessary precautions will be taken to prevent pollution or contamination of streams, waterways and watercourses. In accordance with Tarmac’s environmental management procedures.

Areas in which there is a high risk of oil or fuel spillage such as plant maintenance and storage areas will be protected by bunds and sheeting to prevent such spillage entering the ground or surface water system.

All fuel tanks and drums will be secured against theft or vandalism and contained within a bunded area capable of containing 110% of the contents of the tank. The containment facility will have an impermeable base and sides. There will be no storage of chemicals, oil and other hazardous materials within the Swinney Beck extension area with the exception of a diesel fuel tank required for day to day servicing of quarry plant and machinery. The fuel tank will be appropriately bunded in accordance with Environment Agency guidance.

All diesel spillages within and outside the containment facility will be remediated in a safe and controlled manner as soon as the spillage is identified. Materials generated as a result of remediating a spillage will be disposed of offsite to a suitably licensed facility.

New and used grease cartridges and oil containers will be stored in a secure, lockable area with impermeable base to prevent contamination. Used cartridges and containers will be disposed of offsite at a suitably licensed facility.

All scheduled servicing of quarry plant, including quarry plant working in the Swinney Beck extension area, will be undertaken in the maintenance shed located within the existing quarry area.

3.3 Future landscaping, maintenance and aftercare of the site

The Site will be restored in accordance with Drawing Numbers ME 6/2 (Detailed Restoration Plan (Existing Site Area)) and ME6/3 (Detailed Restoration Plan (Extension Area)), mainly to an area of lowland meadows and open water with wetland margins and woodland.

The vision for the restoration process is *“to make the most of the unique opportunity presented by the proposed development to extend the existing Marfield SINC and Marfield Fen SSSI habitats”*.

The overall aim is to enhance biodiversity whilst recognising a need to be sympathetic to the local landscape character. The Outline Ecological Restoration Plan and Additional Landscape Details (May 2013) committed the operator to submission of five year management plans to run continuously for the life of the restoration programme; a period of 20 years. In addition, Condition 29 requires an annual review of working, landscaping, restoration and aftercare to be undertaken in conjunction with the County Planning Authority, and for an Annual Review Report to be submitted that includes measures necessary to continue the satisfactory landscaping, working, restoration and aftercare of the Site.

3.3.1 Open Water and Wetland Margins

6.28 Drawing ME 6/1 indicates two waterbodies:

- The existing quarry will have 7.9ha of open water and 1.3ha of reedbed/wetland margins, managed for nature conservation; and
- The extension area will have 18.7ha of open water and 4.3ha reedbed/wetland margins, managed for nature conservation

Following cessation of mineral extraction within the working areas, groundwater will be allowed to flow into the void to create a waterbody with a maximum water depth of 4m, at the design water level of 84m AOD in the existing quarry, and of 14m at the design water level of 90m AOD within the extension area.

The shallow margins of up to a maximum depth of 2m will create suitable conditions for aquatic and marginal vegetation and associated fauna to establish and colonise. Reedbed will be established on shallows to a maximum water depth of 0.5m (hydrological limit for *Phragmites australis*²). This includes a large area of reedbed along the northern boundary established on settled silt and smaller areas reed fringes along the lake margins.

Marginal plant communities develop through natural colonisation (establishment survival and regeneration) with the exception of reedbeds areas which will be planted where possible as turf transplants using Common Reed (*Phragmites australis*) from existing stands within the local area after consultation with the County Planning Authority and relevant nature conservation organisations. In the event that there are no suitable donor stands of sufficient size to withstand division, it may be necessary to plant pot-grown nursery seedlings. However, it

²Newbold, C., and Mounford, O., 1997, English Nature Freshwater Series no. 5, Waterlevel Requirements of Wetland Plants and Animals, Peterborough.

will not be necessary to plant up all areas described on the restoration plan, but to provide a source of reeds that can spread in subsequent years; for example, initially 5% of the area indicated, will be planted according to a method agreed beforehand with the County Planning Authority. Using reed planting densities of 4 per m² will be used, to be carried out in June, with protection of newly sprouting reed growth from natural grazing.

3.3.2 Grassland

Grassland includes rough grassland surrounding the lake margins and lowland meadow grassland on the existing and restored areas at the southern parts of the Site.

Lowland meadow (neutral grassland) is identified in the National BAPs as a priority habitat with specific targets for its re-creation from arable land. The restoration scheme will result in the creation of approximately 63.3ha of lowland meadow grassland which will assist in meeting the local and national BAP targets.

The objective will be to establish species characteristically found in the area to develop into Crested Dog's Tail - Common Knapweed grassland, which is characteristically found on neutral well-drained soils, and is a typical lowland meadow grassland with a high diversity of flowering herbs.

Within the wetter parts of the Site, grassland more similar to the MG4 type may establish with characteristic species such as meadow foxtail and greater burnet.

For all grassland areas, the restored surface will be ripped and cultivated to provide a suitable tilth. The grassland will be established through a combination of:

- Use of a green hay collected from suitable donor grassland within the local area. The operator will work with local wildlife bodies and landowners to locate and secure green hay. Green hay will be broadcast over the area, turned periodically to aid in shedding of seed and finally incorporated into the upper 50mm of the soil by cultivation; and
- In the event that green hay is not available, use will be made of seed mixtures using commercially collected seed (of certified British provenance) which will contain species characteristically found in MG5 Grassland (National Vegetation Classification System). The seed mixture will be broadcast over the area and cultivated into the upper 30mm of the soil by harrowing.

3.3.3 Hedgerows

Over 2km of new hedgerow planting and advance infill planting will be undertaken around the Site, which will replace the over 2km of existing hedgerows to be removed. In addition "gapping up" of the perimeter around the existing quarry will be carried out to reinforce the existing levels of screening around the processing plant and stocking areas.

The proposed hedgerow pattern is based on the historic map and will enhance the local landscape character and promote enclosure. It is proposed that the hedgerows will function as a stock-proof barrier whilst also including species of conservation value, to enhance local biodiversity.

Hedgerow planting along the western side of the Site will complement the right of way which runs adjacent to Swinney Beck.

The major shrub component of the hedges will be blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), with minor shrubs as hazel (*Corylus avellana*). Oak (*Quercus robur*) and Small-leaved Lime (*Tilia cordata*) has been included to provide long term hedgerow trees. The approved drawings also refer to Ash (*Fraxinus excelsior*) being planted within the hedgerows although this will be reviewed prior to planting and may be substituted with an alternative native species due to threat of Ash-dieback and latest guidance restricting any new planting.

All new hedgerows will be planted using transplants, in a double staggered row at a rate of 4 plants per linear metre. All hedgerow species will be randomly mixed to give an even distribution of species along the sections of hedge. Isolated trees like oak will be planted within the hedgerow.

All existing perimeter hedgerows will be managed to encourage an increase in height, by trimming the sides only to provide beneficial screening for local visual receptors in the short to medium term.

New hedgerow planting will be carried out at the earliest opportunity following commencement of the development. These will provide beneficial screening for local visual receptors, in the medium to longer term. All other hedgerows will be carried out at the earliest opportunity following restoration.

3.3.4 Woodland

Drawing ME 6/1 indicates 3.2ha of proposed woodland planting, associated mainly with the eastern boundary of the permitted parts of the site. New woodland planting is also associated with the lake margins and Stony Bottoms Plantation as woodland edge within the extension area. The key objective to the planting is for the establishment of diverse woodland based on the use of indigenous species, similar in species composition to the local woodland type W8 (*Fraxinus excelsior* - *Acer campestre* - *Mercurialis perennis*) (National Vegetation Classification) but including an increased proportion of berry bearing shrubs to create bird feeding areas.

The areas to be planted are on restored land. Any volunteer vegetation which has become established on the land post re-instatement will be brashed down and incorporated into the soil via rotary cultivation. These works will be undertaken on completion of any fencing works such that the cultivated land is not subjected to trafficking by vehicles.

The planting will generally be carried out at 2m centres and not necessarily in straight rows thereby creating a more naturalistic woodland. The plants will be set back 500mm from any fence-line. All species will be planted in groups, with groups randomly distributed throughout the planted areas. The native form only of *Malus sylvestris* will be used.

3.3.5 Maintenance and Aftercare

The Outline Ecological Restoration and Additional Landscape Details, April 2013 set out broad aftercare and management principles for each type of habitat for the whole site.

Within six months of the completion of extraction from each phase an aftercare scheme requiring that such steps as may be necessary to bring each phase of the land reclaimed to the required standard of each of the identified afteruses will be submitted to the County Planning Authority for approval in accordance with Condition 30.

This process of maintenance and aftercare management will aim to identify and remedy any localised problems. For example, the following conditions will be assessed and remedied where necessary (to methods agreed with the County Planning Authority): differential settlement, vegetation failure and stones/stone-picking.

The general aims of the waterbody management will be to ensure acceptable level of water quality, increase biodiversity and enhance amenity and appeal. Monitoring of the waterbody will be as follows:

- biodiversity will be assessed by carrying out surveys for aquatic plants and invertebrates;
- amenity and appeal of the lakes will be assessed by visual inspection, to include erosion, odour, plant and animal deaths; and
- freshwater algae will be monitored in particular, excessive accumulations of foams, scums and discolouration of the water. The Environment Agency will be contacted for advice in the event of algae bloom appearing on the Site in response to the threat to wild and domestic animals, fish and humans.

The reedbed areas and wetland margins will be left to gradual natural succession. If necessary, management cutting will be carried out on a rotational basis such that in any year a proportion is left undisturbed.

All grassland areas will be managed throughout the aftercare period to promote floristic diversity and associated wildlife by late cutting for hay, with or without subsequent grazing with sheep and/or cattle (without damaging the sward and substrate) to remove the year's growth and achieve an average sward height of 75mm by the end of the summer. Alternatively, livestock grazing may be used to develop the permanent grazing as unimproved

pasture, subject to tenure and availability. The areas of natural regeneration and wetland will be cut less frequently.

There will be no fertiliser input to grassland areas other than via grazing animals.

It is acknowledged that under the provisions of the Weeds Act 1959, it is the responsibility of all occupiers of land, whether used for agriculture or not, to control injurious weeds so that they do not spread. For all areas, weeds will be controlled by the appropriate application of herbicides by a certified competent person, according to manufacturer's instructions or, in areas of grass, by cutting or grazing.

Plantations will be inspected during March - April following planting when heeling in will be undertaken as necessary. Tree shelters will be maintained in an upright habit and stakes replaced as necessary. All fencelines will be inspected and repaired/replaced where necessary.

Application of glyphosate herbicide will be undertaken to a 500mm radial area around each planting station during May - June for the control of volunteer vegetation. The herbicide application will be repeated in July depending on the state of the re-growth of vegetation.

Volunteer vegetation within the plantations, such as aggressive weed species and long grass, will be cut/strimmed in the September.

Plants, guards and canes which have become loose, over-tight or broken will be re-firmed and adjusted on an annual basis.

All planting/seeding failures will be replaced on an annual basis, during the first five years of aftercare, to ensure 100% maintenance to the agreed stocking rate/densities, proportional mixture of species and/or land cover. All replacements will use plants of the same species or other such species as may be agreed with the planning authority. If abnormal plant or tree failure persists then investigations and proposals for the remedying of site conditions will be prepared and agreed with the County Planning Authority.

3.4 Provision of road and wheel cleaning facilities

Condition 28 requires that precautions including, if necessary, the provision of appropriate wheel cleaning facilities shall be taken and maintained in good working order at all times to ensure that all vehicles leaving the site are in a clean condition such that no dirt and/or mud are deposited on the public highway by vehicles leaving the site.

The operator intends to maintain the current arrangements within the Site, which work well. The access from the quarry onto the Leyburn Road slopes back into the quarry such that drainage of surface water is directed away from the highway into the road. This effectively removes the risk of any silty water running onto the highway.

4.0 Condition 14

This section of the report sets out the proposed scheme for the safeguarding of all stand-off areas from the boundaries of the site.

Condition 14 states:

“Prior to the commencement of development in Phase 1 shown on Drawing Number ME 10/2 (Working Phase Plan) dated January 2011 a detailed scheme for the safeguarding of all stand-off areas from the boundaries of the site shall be submitted to and approved in writing by the County Planning Authority. In any event, the standoff from all hedgerows shall be no less than five metres and from trees the stand-off shall be no less than fifteen metres or one metre beyond the extent of the canopies, whichever is the greater (unless specified otherwise in the Supplementary Ecological Impact Assessment dated September 2012). Detailed schemes covering the abovementioned matters shall be submitted to and approved in writing by the County Planning Authority prior to the commencement of operations within each phase shown on Drawing Number ME 10/2 (Working Phase Plan) dated January 2011. Thereafter, the approved method of stand-off identification on site shall be implemented and maintained at all times during mineral extraction operations within each phase of the development.”

As far as possible and within the extent of works identified within the approved drawings and noted above, all stand-off areas from the boundaries of the site will be safeguarded.

The standoff from all hedgerows to be retained will be no less than five metres and from trees to be retained the stand-off will be no less than fifteen metres or one metre beyond the extent of the canopies, whichever is the greater (unless specified otherwise in the Supplementary Ecological Impact Assessment dated September 2012). Protective demarcation fencing, using post and wire will be installed prior to earthworks commencing.

4.1.1 Eastern boundary

The eastern boundary of the extension area is defined by the Leyburn Road. Along this boundary is an existing hedgerow with mature trees. This hedgerow will be allowed to grow up, i.e. not have the tops cut, to achieve a target 3m height and where possible development of trees component. All gaps will be infilled using locally appropriate tree and shrub species.

The mineral extraction area is a minimum 30m away from the hedgerow along the eastern boundary (excavation Phases 1 and 3). A soil/overburden storage mound will be formed within this standoff strip. The toe of the mound will be 5m away from the existing hedgerow and locally adjusted to ensure suitable standoff to the mature trees (as per the condition noted above).

4.1.2 Southern boundary

The southern boundary of the extension area is defined by the agricultural fields, but also cuts through three hedgerows. Along this boundary a new hedgerow will be planted with individual trees, providing new corridor connections between existing retained sections of hedge. This new hedgerow will be allowed to grow up, i.e. not have the tops cut, to achieve a target 3m height and where possible development of trees component.

The mineral extraction area will be 5m away from the new hedgerow along the southern boundary. A soil/overburden storage mound will be formed within the eastern side of this southern standoff strip. The toe of the mound will be 5m away from the new hedgerow.

4.1.3 Western boundary

The western boundary of the extension area is defined by the public right of way at the edge of the field and Swinney Beck. Along this boundary is an existing hedgerow with mature trees. A new hedgerow will be planted along this boundary to enclose the public right of way within a green lane.

This new hedgerow will be allowed to grow up, i.e. not have the tops cut, to achieve a target 3m height and where possible development of trees component.

The mineral extraction area is a minimum 25m away from the existing hedgerow and will be 10m from the new hedgerow along the western boundary.

4.1.4 Northern boundary

The northern boundary of the extension area is defined by the existing hedgerows. This hedgerow will be allowed to grow up, i.e. not have the tops cut, to achieve a target 3m height and where possible development of trees component. All gaps will be infilled using locally appropriate tree and shrub species.

The mineral extraction area is a minimum 30m away from the hedgerow along the northern boundary. A soil/overburden storage mound will be formed within part of this standoff strip. The toe of the mound will be 5m away from the existing hedgerow and locally adjusted to ensure suitable standoff to the mature trees (as per the condition noted above).

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

T: +44 (0)28 9073 2493

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 906 4280

CAMBRIDGE

T: + 44 (0)1223 813805

CARDIFF

T: +44 (0)29 2049 1010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: + 44 (0)1392 490152

GLASGOW

T: +44 (0)141 353 5037

GUILDFORD

T: +44 (0)1483 889800

Ireland

DUBLIN

T: + 353 (0)1 296 4667

LEEDS

T: +44 (0)113 258 0650

LONDON

T: +44 (0)203 805 6418

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

NOTTINGHAM

T: +44 (0)115 964 7280

SHEFFIELD

T: +44 (0)114 245 5153

SHREWSBURY

T: +44 (0)1743 23 9250

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

France

GRENOBLE

T: +33 (0)6 23 37 14 14