RESUBMISSION OF

Planning application

For

importation of inert waste, largely in the form of soils, and its use in raising the level of the field surface, left following mineral extraction, to facilitate better agricultural use

Nibble Taylors Close
Land to the east of The Piggeries
Cranford Road
Burton Latimer

By
Barton Plant Ltd

for
Sir John Robinson.

SUPPORTING STATEMENT

Including Flood Risk Assessment
Introduction

The field that is the subject of this application is known as Nibble Taylors Close; it was worked for minerals at some point in the past and restored to agricultural use. The field is surrounded by hedgerows on three sides, with the fourth side open to the adjoining arable field. The restoration is of poor quality, having left thin topsoil over a very variable subsoil resource. The surface is uneven and slopes towards the southwest corner of the site. The field is oddly shaped and thus awkward to work.

The site lies adjacent to the premises used by Barton Plant as its offices, workshop and vehicle yard, through which access to the site is available. In total, the field is 5.6 hectares in extend, but filling will affect 5.3 hectares. The total application area is 5.5 hectares, as the access route is 0.2 hectares in extent.

Submitted Plans

- The location of the site is shown on Plan No GPP/BP/NTC/08/01;
- The boundary of the site, access and existing site levels are shown on Plan No PIG/EXISTINGFIELD2 REVB;
- Proposed finished levels and drainage are shown on PIG/FIELDFILL2 REVB;
- Cross sections are PIG/FIELDFILL2LBB REVB and PIG/FIELDFILL2LAAB REVB;
- Filling contours are shown on PIG/EXISTINGFIELD2ISO REVB;
- Phasing and soil storage on PIG/EXISTINGFIELDFILL2WP REVCC

The Proposal

It is proposed that inert waste, principally subsoil and topsoil, be used to effect a better restoration of this site. The work would be carried out during over three years, following site preparation in spring 2009, while soils are dry and can be properly handled to avoid compaction.

The maximum depth of the fill required is 2m, reducing to existing levels around the sides of the field. The total volume required is 92,400m$^3$, which is approximately 150,000 tonnes of inert waste. This would be imported to the site at a rate of 15 loads per day on average over a period of three years.

It is proposed that access be achieved via the existing access to Barton Plant’s premises and through these premises to the south-west corner of the field. Barton Plant would source material from the local area and half of the daily loads would use the 8 lorries that return to the premises at the end of each working day; instead of returning empty they would return full. This means that only 14 additional traffic movements will be created each day.
Filling would start in the northern third of the field and proceed in three phases, working southwards with filling taking place in an eastwards direction over an advancing face. Phasing and soil storage is illustrated on Drawing PIG/EXISTINGFILEDFILL2WP. Prior to filling, the soil on the surface will be stripped and stockpiled for re-use on the filled surface. Topsoil only will be stripped from the first two phases and it will be stored in a bund no more than 3m high along the western boundary; the same area for storage will be used twice, firstly for Phase 1 soil and secondly for Phase 2 soil. Topsoil and subsoil will be stripped from Phase 3 and placed in separate bunds. The topsoil will be stored in a bund on the restored area of Phase 2 and the subsoil will be stored in two bunds, each 5m high along the western boundary. Due to the volume of subsoil, Phase 3 will be worked in two sections, (a) is the northern half and (b) is the southern half. The subsoil will be stripped separately from each section and replaced on the restored surface before the next section is stripped.

Material will be placed to a maximum depth of 2m. Subsoil will be used for the bulk of the fill material; which will be covered with a topsoil layer of about 0.25m above. Prior to the replacement of the topsoil, the subsoil layer will be ripped, to ensure that any compaction is removed.

**Planning Policy**

The relevant policies relating to this proposal are contained in the Adopted Northamptonshire Waste Local Plan.

Paragraph 6.56 of this Plan clearly states that “the use of material to landfill or landraise as part of an agricultural improvement scheme or as engineering works should not be unduly restricted”.

Policy 23 on Agricultural Improvement and Engineering Works states that

“Proposals for development by landfill or landraising for the purposes of agricultural improvement or engineering works will only be permitted where it can be shown that:
- there is no significant loss of amenity caused by the operations and traffic movements;
- there is an agricultural, engineering, landscape or recreation amenity justification for the proposed works;
- It does not divert significant quantities of material away from the restoration of mineral workings;
- the materials used are inert or are soil improvers;
- other operations and alternatives have been considered by an appropriate assessment and report and that proposal is in accordance with the Best Practicable Environmental Option and other criteria and policies of the development plan”.

The supporting text to Policy 23 requires the following:

*Proposals for agricultural improvement or other engineering operations should contain*
additional relevant information as necessary, such as:

- evidence that the site is land in use for agriculture as defined within Section 336 of the Town and Country Planning Act 1990;
- evidence as to the nature of the agricultural holding and why the land comprised within the application site needs to be improved;
- a full statement of physical characteristics as well as the documentary evidence as to the current physical condition of the application site:
- evidence as to how the proposed method will improve the land;
- evidence as to why no other available method of land improvement is appropriate and the reasons why
- details of soil stripping, timing, movement, storage, and re-spreading of soils;
- a comprehensive scheme of land restoration/improvement (including drainage);
- an evaluation of the potential for materials recovery and reuse together with, where appropriate, details of a plan for implementation of recovery of inert waste materials from the site for reuse or recycling;
- a scheme of quality control of the materials proposed to be deposited on the land which ensures uniformity of quality and type in accordance with the description of materials as set out in the planning application.

All of the above points are considered below.

Agricultural use
The field is within the ownership of Sir John Robinson and forms part of a larger agricultural unit. The area of land has been in agricultural use since its restoration following the excavation of minerals from the site. The field has been in setaside for many years due to its very low productivity and difficulty of farming with modern equipment.

Agricultural soil characteristics
The restoration of the land has affected the productive capacity of the land and in recent times the land has provided the annual set aside compliance required under EU legislation.

A report has been prepared by James Fulton of Berrys describing the existing conditions in detail; a copy is included in Appendix 1. The soils are classified as grade III being of the Banbury Association. This is better described as stony well drained fine and coarse loamy ferritic brown earths resting on shattered ironstone. These soils are traditionally poor in magnesium and potassium, further affecting the potential productive capacity. Further survey work was carried out on 15 October, at a site meeting attended by Adrian Rochford of Natural England. His observations, derived from seven random samples using a Dutch auger and one small hand dug pit, are that the topsoil resource is thin and poor and that the subsoil resource is variable.
Land improvement
The field will be improved by raising the surface and placing clean inert materials, the upper 90cm of this will be subsoil of a uniform type. Topsoil stripped from the existing surface will be spread on the imported subsoil. The work will create a generally level surface, which will blend with the level of the adjoining arable field, thus enabling the newly restored surface to be worked in with the adjoining field.

Soil stripping and restoration
Soils will be stripped in phases and placed in the storage bunds shown on Plan PIG/EXISTINGFIELD/FILL2WP. Topsoil stripping in Phase 1 will be carried out in spring 2009 and placement of imported materials will follow. The site will be worked in three main phases and it is anticipated that each phase will take about one year, thus if a start is made during spring 2009, soils will only be handled during the dry summer months.

Details of the equipment and the methods of soil handling to be used are set out in Appendix 3. The proposed restoration contours show slopes of between 1:12 and 1:50, towards the eastern boundary, where a soakaway ditch will be constructed to take the run-off.

At the southeast boundary the contours have been designed to blend in with those in the adjoining field, so that the area of this field can be taken in with the adjoining field, to be cultivated as one for arable crops. This will facilitate the eventual use of large modern agricultural equipment.

Once the restoration operation is concluded, it is regarded as best practice to restore the site to grassland for some years to allow settlement to occur and reduce the need to run heavy agricultural plant across the site. The grassland is considered ideal for the grazing of sheep, which provide only light loading and minimal risk of settlement. Once the soil structure has become established, the land will be returned to arable cultivation, with an area retained as grassland around the margins, to provide grazing for the local badger population.

Materials recycling
All loads delivered to the site will have been selected at source to ensure that material suitable for recycling is not included. Any loads containing material suitable for recycling will be directed to the site at Weekley Wood Lane, where the applicant has a recycling operation.

Quality control
The applicant is very experienced in the handling of inert waste. Any material that is judged to be unsuitable for this project will be taken to the Long Drowpits Landfill. The site is adjacent to the Applicant’s offices, therefore it will be very easy to provide controls over the inputs.
**Significant loss of amenity**

The site cannot be seen from the A6 or Burton Latimer due to the lie of the land and the fields to the south and southwest are bounded by mature hedges. Nor is the site visible from Windmill Cottages, which are fully screened by the landscaped mound between the Cottages and Barton Plant’s premises. The field is over 250m south of the A14 and as most of the operations will take place below the level of the surrounding land, they will be barely visible from the north.

Windmill Cottages lie to the south-west of the site and at a distance of over 350m, therefore they should not experience any noise or dust nuisance as a result of the operations on site. The prevailing wind would carry any dust away from the properties and the nature of the placement operations is likely to generate levels of noise akin to the agricultural activities that take place on the adjacent fields.

The residents of Windmill Cottages already experience the 8 lorries returning to the applicant’s premises at the end of each day. The additional movements needed to bring materials to the site will be confined to the normal working day i.e., no deliveries will be made after 18.00pm, with no deliveries at the weekend or on Bank Holidays.

All work to prepare the site, level the imported fill and to replace the soils will be carried out between 09.00 and 18.00.

**Volume**

Although this scheme represents a significant volume of material in total, it will not result in material being diverted from the restoration of active mineral workings in the county. This site will only be used by the applicant and will not be made available to third parties.

When the applicant, Barton Plant, is servicing contracts in Kettering and surrounding areas, it currently has use of landfill capacity at Long Drowpits on land owned by the Boughton Estate. The permitted voidspace is being used up and although an application will shortly be submitted for an extension of the facility, there is the potential for an interruption to the supply of capacity. This site at Nibble Taylors Close will provide the company with an alternative to ensure continuity of service provision to the applicant’s clients. Inert waste handled by Barton Plant and generated in and around Corby and Kettering would not be carried to the active mineral sites in the south and east of the county due to the distance, and thus time and cost; the waste would be taken to Long Drowpits.

**Restoration**

The field will be restored to arable use with grassland margins and will be the subject of a 5-year aftercare programme, to be submitted to the Local Planning Authority in the event that planning permission is granted for the development.
Viability of the agricultural unit
The proper restoration of this site will enable unused land to be brought into beneficial agricultural use, thus contributing to the viability of the unit.

Inert materials
All material to be used in this agricultural improvement will be clean inert, principally arising from local site clearance projects and in accordance with the limitations imposed by the exemption from the Waste Management Licensing Regulations.

Other operations and alternatives
The proposed development provides a beneficial use for locally arising inert waste. There is no alternative means of effecting improved restoration of the field.

Surface and groundwater impacts
A detailed Flood Risk Assessment is included in Appendix 2, which describes the measures needed to control surface water run-off.

The site does not lie in an area where there is any protection of groundwater, therefore no special measures need to be taken to reduce the risk of groundwater contamination. However, careful control will be employed to ensure that only uncontaminated inert waste is used on site, which will include ensuring that the source of the materials is known and the characteristics of the waste have been identified.

Features of ecological interest.
A walkover field survey carried out by Lockhart Garratt on 16 November 2007 identified the location of a badger sett along one of the field boundaries, which will be protected throughout the proposed operations. Grassland habitat will be re-instated in part of the field to ensure the provision of an adequate grazing area. A further survey was carried out by Phil Irving in July 2008; the report is included in Appendix 4; it concludes that the field has a disturbed, species poor community of little biodiversity interest.

Conclusions
This proposal stems from the need by the landowner to improve the quality of the field for agricultural purposes by importing inert waste in the form of subsoils, to create a more even surface that is generally level with the adjacent arable field with which it would be worked. It fully complies with Policy 23 of the Waste Local Plan, therefore permission should be granted.
Appendix 1

Agricultural Use, Soils and Fertility Report by James Fulton, Berrys.
Appendix 2


Introduction

Barton Plant has been approached by the landowner of Nibble Taylors Close to import inert waste to improve the conditions of the field and thus enable more productive arable farming. The field is 5.5 hectares in area and therefore the planning application has to be accompanied by a Flood Risk Assessment.

The proposals are to improve the area with the objective of providing a positive environmental benefit for agriculture and will involve the use of inert soils. A volume of 92,400 m$^3$ is needed to achieve the proposed contours, which have been designed to enable the operations to be carried out under an exemption from the Waste Management Licensing Regulations.

Development Description & Location

The proposed development and its location are described in the Supporting Statement to which this FRA is an appendix.

There are no surface water features in the locality; all rainfall drains naturally through the soils in to the underlying porous limestone.

The proposed development would be classified as ‘Less Vulnerable’ in accordance with Table D.2 in Annex D of PPS25. The Environment Agency’s indicative flood plain map is located in Appendix 1 and this shows the site in flood Zone 1 as defined in Table D.1 Annex D of PPS25. The area of the site to be occupied by the proposed development will be located within the Zone 1, therefore the development passes the Sequential Test because the proposed development is deemed to be an acceptable use for a Zone 1 Low Probability flood area.

Definition of Flood Hazards

Potential Sources of Flooding.

There is no primary potential source of flooding to the site, given the distance from the nearest stream, which lies 500m to the north of the site, beyond the A14 dual carriageway road.
Ground water is unlikely to be a potential source of flooding, as it lies at some distance below the level of the field.

**Appraisal of Sources of Flooding**

No records are believed to exist which might indicate that the site may have flooded in the past. Local knowledge of the site would suggest that it has not flooded in recent memory and this would seem to be reinforced by the indicative flood plain map showing that the site has a low probability of flooding.

There is no evidence of the site being affected by ground water or surface water.

**Probability**

The site is within a Zone 1 flood area. This is deemed to have a low probability of flooding, typically lower than a 1 in 1000 annual probability.

**Climate Change**

The development is considered at low risk from flooding and therefore no provision has been made to protect the development from the effects of climate change.

**Development Proposals**

The existing and proposed site contours are shown on the plans submitted with the planning application. The site is to be restored with inert waste material, principally sub-soils.

The restoration will comprise of a maximum depth of 2m of inert waste, which will be loosely placed as recommended by the MAFF publication Good Practice Guide for Handling Soils Sheet 15 ‘Soil Replacement with Bulldozers and Dump Trucks’. The aim is to ensure that the restoration process optimises the potential for successful use of the land for agricultural purposes.

**Flood Risk Management Measures**

There are no proposals to manage flood risk to the site as it is located in a low risk flood zone and is classed as a less vulnerable development.

**Off Site Impacts and Proposed Mitigation Measures**

Given that the site is not located near a flood plain, the only flood risk that the proposed development could pose off site would be increased risk of flooding as a result of increased surface water run-off. The rate of run-off from the site is principally affected by land use, topography and geology. In order
to determine the best means of dealing with surface water run-off, a comparison between the existing site and the proposed restoration scheme is required. Normally, if there is an increase in the rate of run-off, surface water attenuation is required.

The site currently has difficulty in sustaining good growth of arable crops due to the poor amount of topsoil deposited on the surface and the free draining nature of the underlying geology. Therefore, there is no run-off from the field, beyond its boundaries.

The proposed development will consist of loosely placed inert material and topsoil. This loosely placed material will ensure that the surface will be relatively permeable, which will also facilitate absorption of rainfall during normal rain events.

Only during periods of heavy rainfall is there likely to be run-off. The proposed contours will direct the flow in a northerly and easterly direction, to a soak-away ditch to be constructed near the eastern field boundary. This ditch will intercept the run-off and will allow it to soakaway in to the underlying limestone. In the event that planning permission is granted for this proposal, calculations will be carried out to design the size and thus capacity of this drainage feature.

**Management of Residual Risks**

No residual risks are anticipated.

**Conclusions**

The proposed development has been shown to pass the Sequential Test in PPS25. The site is not affected by any form of flooding and the provision of a soakaway ditch should prevent the risk of surface water run-off during periods of intense rainfall.
Appendix 3

Soil stripping and storage method statement for use of an excavator and dump truck and Soil placement and replacement method statement using a bulldozer and dump truck.

Soil stripping will be carried out in spring, when the soil resource is in a dry and friable condition and during dry weather. Prior to stripping, the existing vegetation will be retained and managed by topping.

The following is based on the MAFF Good Practice Guides for Handling Soils using an excavator and dump truck. The soil stripping operations are illustrated in Figures 1.1, 1.2 and 1.3 as copied from the Sheet I of the Good Practice Guides and the soil replaced operations are illustrated in Figures 15.1, 15.2 and 15.3 as copied from the Sheet 15 of the Good Practice Guides.

All machines will be in a safe and efficient working condition at all times. The machines are to only work when ground conditions enable their maximum operating efficiency. The operation is to be suspended before traction becomes a problem or the integrity of the basal layer and haul routes fails; haul routes will be maintained.

1.0 The Stripping Operation

1.1 The area to be stripped will be protected from in-flow of water, ponding etc. If need be, the site will be drained in advance.

1.2 Soil stripping operations will not start until the required soil moisture levels are reached and will be suspended as soon as the water content returns to these levels. Prior to work commencing a Meteorological Office forecast will be obtained which gives reasonable confidence of soil stripping proceeding without interruptions from rainfall events. If significant rainfall occurs during operations, the stripping will be suspended, and where the soil profile has been disturbed it will be removed to base level. Stripping will not restart unless the weather forecast is expected to be dry for at least a full day. No stripping will take place if the soil is flooded.

1.4 The operation will follow a detailed stripping plan showing the area to be stripped and haul routes to be used. In Phases 1 and 2 only topsoil will be stripped. In Phase 3, topsoil and subsoil will be stripped separately; each layer will be stripped to its natural thickness without incorporating material from the lower layers. The soil depths will be defined on the site prior to stripping.
1.5 Soils are to be stripped in sequentially with the topsoil layer stripped first, followed by the subsoil layer. The next strip is not started until the current strip is completely stripped to the basal layer. This is often referred to as the 'bed or strip system'. Where there is a gradient to the site, the main axis of the soil strips will be along the main axis of the slope.

1.6 The haul routes and soil storage areas will be defined, and will be stripped first in a similar manner.

1.7 The excavator is only to work on the topsoil layer; the dump trucks are only to travel on the basal/formation layer.

1.8 Stripping is to be undertaken by the excavator standing on the surface of the topsoil and digging the topsoil to its maximum depth, and loading into dump trucks. An excavator with a bucket with teeth will be used. The dump truck will draw alongside the exposed soil profile, standing and traveling only on the basal layer. See illustrations.

1.9 The initial strip width and axis will be demarcated as determined by the length of the excavator boom less the stand-off to operate.

1.10 Topsoil will be recovered to the full width of the strip without contamination with subsoil (not more than 20% of the lower horizon will be exposed at the layer junction within the strip). The thickness and identification of the horizon junction will be verified before and during stripping. The full thickness of the topsoil horizon will be stripped progressively along the strip before the subsoil horizons are started.

1.11 The upper subsoil in the current strip is to be stripped and monitored in the same manner. The final 25cm of the subsoil layer will be left as a step to protect the adjacent topsoil layer from local collapses. The process is to be repeated for the lower subsoil and any other lower layer to be recovered as a soil material.

1.12 On completion of the strip, the procedure will be repeated sequentially for each subsequent strip until the area is completely stripped.

1.13 Where the stripping operation is likely to be interrupted by rain or there is likely to be overnight rain, any exposed subsoil will be removed down to the basal layer before suspending operations. The base of the current or next strip will be protected from ponding/runoff by sumps and grips. At the start of each day any ponding will be removed from the current strip or operating areas, and the basal layer will be leveled to remove any ruts.
Figure 1.1 Soil stripping with excavators and dump trucks: The bed system

Figure 1.2 Stripping with excavators and dump trucks: Removal of top soil from a strip

Figure 1.3 Stripping with excavators and dump trucks: Removal of sub soil from a strip
2.0 Creating storage mounds

2.1 The mounds will be sited on dry ground and will not disrupt local surface drainage. Where necessary mounds will be protected from run-off/ponding by a cut-off ditch which is linked to appropriate water discharge facilities. Where the storage mound is in a hollow due to the removal of surface soils, measures will be undertaken to ensure that water is not able to pond within the storage area.

2.2 The dump trucks will only travel within the haul route and operational areas. The trucks will enter the storage area, reverse and back-tip the soil load starting at the furthest point of the mound from the point of access. The back-acting excavator will pull up the soil into a mound of the required dimensions. The excavator will operate by standing on the mound. The excavator bucket can be used to shape and firm the sides as the mound is progressively formed to promote the shedding of rain; particularly at the end of each day, but also on the onset of rain during the day. This will include any exposed incomplete surfaces.

2.3 The process will be repeated with the tipping of soil against the forming mound, and without wheels traversing onto previously tipped material. The operation will continue progressively along the main axis of the mound.

2.4 Any exposed edges/surfaces will be shaped using the excavator bucket at the onset of rain during the day. All surfaces will be shaped to shed water at the end of the day. The final outer surface will be progressively shaped using the excavator bucket to promote the shedding of rain.

2.5 Work will stop in wet conditions with measures undertaken to prevent ponding at the base of the mound and on the basal layer. At the start of each day ensure any ponding on the basal layers and operating areas will be removed.

3.0 Removal of soils from storage mounds

3.1 The dump trucks will travel only on haul routes and in the operational area, and both will be maintained and they will only operate on the basal layer.

3.2 The trucks will enter the storage area and draw alongside the active excavation face. If back-acting excavators are used, they will need to stand on top of the mound to load trucks. The mound is to be dug to the base before moving progressively back along its axis.

3.3 Any exposed edges/surfaces will be shaped on the onset of rain during the day. All surfaces
will be shaped to shed water at the end of each day.

3.4 Work will stop in wet conditions with measures undertaken to prevent ponding at the base of the mound and on the basal layer. At the start of each day any ponding on the basal layer and operating areas will be removed.

4.0 Soil Placement and Replacement Operations

4.1 The area to be restored will be protected from in-flow of water, ponding etc. and drained in advance if necessary. Before the operation starts the basal layer will be level and clean.

4.2 Prior to commencing operations a Meteorological Office forecast will be obtained which gives reasonable confidence of soil replacement proceeding without interruptions from rainfall events. If significant rainfall occurs during operations, the replacement will be suspended, and where the soil profile has been started it will be replaced to topsoil level. Replacement will not restart unless the weather forecast is expected to be dry for at least a full day.

4.3 The operation will follow a detailed replacement plan showing soil units to be replaced and haul routes. The soil units will be defined on the site with information to distinguish types and layers, and thickness. Detailed daily records will be kept of operations undertaken (including the removal of stones and other damaging materials, and the results of any assessment of the need for additional decompaction and effectiveness of decompaction work undertaken), and site and soil conditions.

4.4 The bulldozer and dump truck will only stand, work and travel on the basal/formation layer.

4.5 The soil layers above the base/formation layer will be replaced in sequential strips with the subsoil layer(s) replaced first, followed by the topsoil layer; each layer being replaced to the specified thickness. The next strip is not to be started until the profile in the current strip is completed. This is often referred to as the 'bed or strip system'. The system involves the progressive sequential laying of the materials in strips across the area to be restored.

4.6 The initial strip width and axis is to be demarcated.

4.7 The dump truck will be reversed up to edge of the current strip and tip the lowest layer (subsoil) soil, without the wheels riding onto the strip. The dump truck will not drive away until all the soil is deposited within the strip without spillage over the basal layer; this may require assistance from the excavator to 'dig away' some of the tipped soil. The excavator will spread the tipped soil to full thickness by digging, and the pushing and pulling action of bucket. Each load of soil will be spread following tipping, before another is tipped. Decompaction by
ripping will be undertaken once the strip is complete. Decompaction work will be completed before the next soil layer is placed.

4.8 Level boards and soil pits will be used to verify soil thickness in each strip and overall levels. Allowances (ie. a bulking factor) will be made for any settlement that may take place of the replaced loose soil.

4.9 Stones are to be removed as part of the replacement process. These operations will be completed before the next soil layer is placed.

4.10 On completion of the subsoil layer, the process will be repeated, spreading the topsoil layer. The soil will be tipped by reversing to the outer edge of strip/soil previously laid, but without the truck wheels riding onto the already placed layer. The soil is to be spread by the bulldozer to full thickness by the pushing and pulling action of its bucket described above, and undertaking any necessary decompaction work and removal of stones. The process will be repeated progressively (left to right) along the strip and removal of stones and/or decompaction will be carried out. Level boards will be used to verify soil thickness in the strip and overall levels.

4.11 On completion of the topsoil layer the processes outlined above will be repeated for the next strips until the area to be restored is completed. Before the operation starts the basal layer will be level and clean and if it shows any significant signs of compaction, will be ripped before the soils are placed on top.

4.12 At the end of each day the current strip will be completed if rain is forecast. If during a day it is evident that a full strip cannot be completed, then only part of a strip will be started; this too will be completed.

4.13 At the end of each day, or during the day if interrupted by rain, provisions will be made to protect the base of the restored strip from ponding/runoff by sumps and grips, and the basal layer will be cleaned and leveled. At the start of each day any ponding in the current strip or operating areas will be removed and the basal layer will be leveled with no ruts.

N.B. In addition to handling the existing materials in site in accordance with the above methods, all imported material will be placed using the procedure described in Section 4 and illustrated below, to minimise the compaction and thus facilitate good drainage of the restored surface.
Figure 15.1 Soil replacement by bulldozers and dump trucks:
Sub soil layer

Figure 15.2 Soil replacement by bulldozers and dump trucks:
Sub soil layer
Figure 15.3 Soil replacement by bulldozers and dump trucks: Top soil layer
Appendix 4

AGRICULTURAL USE, SOILS & FERTILITY REPORT

OF LAND KNOWN AS

NIMBLE TAILORS CLOSE

AT CRANFORD IN NORTHAMPTONSHIRE
CAVEATS AND ASSUMPTIONS

The information included in this report is based upon an inspection of the land on 15th May 2008, on information provided by GP Planning Ltd and on information from IACS returns and Annual Stocktaking Valuations.

AUTHOR’S CV

James Fulton is a practitioner with Berrys responsible for the delivery of rural business advice to a wide range of professional, private and corporate clients. He directly manages approximately 10,000 acres of land in hand and specialises in land management, soils and agriculture.
1.0 INSTRUCTION

1.01 Berries have been instructed to carry out a detailed assessment of the agricultural use and the soils and fertility of the field known as Nimble Tailor’s Close, identified by the red outline on the plan at Appendix 1, on behalf of GP planning Ltd.

1.02 The report has been requested to be submitted in association with a planning application but the report is entirely independent of that application.

2.0 INTRODUCTION

2.02 The freehold ownership of the land lies with Sir John Robinson Bt and the Cranford Estate, although it is occupied by J P Clarke Esq. under an Agricultural Holdings Act Tenancy, dated 13th September 1955.

2.03 The land comprises approximately 5.6 Ha of agricultural land which was eligible under IACS for AAPS and has been treated as Set-Aside for a number of years.

2.04 The DEFRA ALC mapping confirms that the land falls into Grade 3

2.05 Three auger bores have been taken in order to identify the soil types and depths.

3.0 AGRICULTURAL LAND CLASSIFICATION

3.01 The land has been classified using the guidelines set out in the Agricultural Land Classification of England and Wales (MAFF, 1988). This system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The limitations can operate in one or more of four principal ways: they may affect the range of crops that can be grown, the level of yield, the consistency of yield and the cost involved in obtaining that yield. The classification gives considerable weight to flexibility of cropping, whether actual or potential, but the ability of some land to produce consistently high yields of a somewhat narrower range of crops is also taken into account.

3.02 The principal physical factors influencing agricultural production are climate, site and soil. These factors together with interactions between them form the basis for classifying land into one of five grades; Grade 1 land being of excellent quality and Grade 5 land of very poor quality. Grade 3, which constitutes about half of the agricultural land in England and Wales, is now divided into two subgrades designated 3a and 3b.

3.03 The main climatic factors are temperature and rainfall, although account is taken of exposure, aspect and frost risk. The site factors used in this classification are gradient, microrelief and flood risk. Soil characteristics of particular importance are texture, structure, depth and stoniness. These climatic, site and soil factors result in varying degrees of constraint on agricultural production.

3.04 The grade or subgrade of land is determined by the most limiting factor present. When classifying land the overall climate and site limitations should be considered first as these can have an overriding influence on the grade. (A description of grades and subgrades can be found at appendix 2)
4.0 SITE

4.01 The site totals approximately 5.6 hectares (13.8 acres) and is shown on the plan at Appendix 1.

4.02 The field is oddly shaped and awkward to work due to this shape. The field has a slope running from North West to South East and also falls away towards No 1 on the map in the South West Corner.

4.03 The general gradient across the field from the low point at 4 to the high point at 6 is 3.8 degrees with the gradient of the steepest point being 5.5 degrees.

4.04 The slope faces South East which will increase the mean daily temperature and hence the accumulated temperature.

4.05 The slope will also contribute to surface run off and water erosion in heavy rain due to the soil type.

5.0 SOIL

5.01 The reconnaissance soil map of the area (Soil Survey of England and Wales) shows the site to be within the Banbury Association described as stony, well drained, fine and coarse loamy ferritic brown earths resting on shattered ironstone. (Soils and their use in Midland and Western England, 1984) Full description at Appendix 3.

5.02 Initial augur bores were inconclusive due to the inability to augur below 30cm. It was assumed that this was due to the high incidence of large stones within the top 30cm but trial pits suggest that it was due to the extremely high level of compaction below this depth.

5.03 The trial pits show there to be two distinct areas within the field, that including trial pit one to the west of a North South line through trial pit 2 (referred to as area 1) and the area to the East of trial pit 2 (referred to as area 2).

5.04 The whole site has previously been worked but it is probable that this occurred at two separate times. Area one has had the ironstone mined to a far greater depth than area two and has been restored differently. A full description of the soil in the two areas is found at Appendix 4.

5.05 Both areas suffer from having been restored very badly as shown by the extreme compaction from around 30cm depth down to the ironstone.

5.06 The nature of the soils means that Potash levels are inherently low and require annual applications of fertiliser.

5.07 The thin or non-existent top soil combined with a heavily compacted subsoil lead to extreme droughtiness in summer and wetness in winter as supported by the poor state of the grasses and the prevalence of the mares tail.

6.0 AGRICULTURAL USE

6.01 The land is included in the tenancy of JP Clarke Esq. who has farmed the land since he took on the tenancy on the 13th September 1955.
6.02 Nimble Tailor’s Close and the surrounding land has been within an arable rotation which can be seen since the inception of the Arable Area Payments Scheme (AAPS) under the Integrated Administration and Control System (IACS) in 1992.

6.03 The field has been classified as setaside since the beginning of IACS and has remained as such on the subsequent Single Farm Payment (SFP) claims.

7.0 CONCLUSIONS

7.01 The land, while recognised as agricultural within Section 336 of the Town and Country Planning Act (1990), is not currently used for any agricultural production due to the poor quality of the land.

7.02 Following the guidelines set out in the Agricultural Land Classification of England and Wales (MAFF,1988) this land would fall into the Grade 4 classification – poor agricultural land

7.03 The speed at which the land drains and thus its potential soil moisture deficit make it unsuitable for grass production other than for rough grazing land.

7.04 Its position within the holding, an outlying field with no stock proof fencing, leaves it unsuitable for grazing.

7.05 Overall the site is of very little use to what is primarily an arable holding.

8.0 LAND IMPROVEMENT SCHEME

8.01 Material will be placed to a maximum depth of 2m. Prior to filling, the soil will be stripped and stored for use on the restored surface, in accordance with MAFF Best Practice Guide for Handling Soils - Sheet 1, using excavators and dump trucks.

8.02 The bottom 1m will comprise inert clay or similar excavation material, which will be covered by sub soils, placed to a depth of 0.9m with a topsoil layer of 0.3m above.

8.03 Stripped top soils from the site will be re-spread and any deficiency in depth will be made up using imported top soils from local Greenfield site clearance projects.

8.04 The sub soils will be loose-tipped, in accordance with MAFF Good Practice Guide for Handling Soils - Sheet 4. Prior to the replacement of the topsoil, stones will be removed from the subsoil layer.

8.05 Subsoil will be supplied to the site from local Greenfield site clearance projects; material will only be accepted for delivery to the site provided that it has been found to be free of contamination.

8.06 All material to be imported to the site will meet the requirements of a Paragraph 9 Exemption to be issued by the Environment Agency.

8.07 Following placement of the fill, subsoil and topsoil, the surface will be managed for agriculture in accordance with an approved aftercare scheme.
APPENDIX (1)
PLAN OF NIMBLE TAYLORS CLOSE
DESCRIPTION OF GRADES AND SUBGRADES

Grade 1 – Excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 – Very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations and harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of some of the more demanding crops such as winter vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 – Good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and the type of cultivation, harvesting or level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a – Good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b – Moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be harvested or grazed over most of the year.

Grade 4 – Poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In most climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 – Very poor quality agricultural land

Land with very severe limitations which restrict use to permanent or rough grazing, except for occasional pioneer forage crops.
DESCRIPTION OF BANBURY SERIES

0-20cm depth

Dark Brown, slightly stony clay loam or sandy clay loam

20-50cm depth

Strong brown, slightly stony clay loam; strong medium granular or fine angular blocky structure.

50-70cm depth

Strong brown or reddish brown, very stony clay loam; strong medium granular or fine angular blocky structure.

70-100cm depth

Strong brown or reddish brown, extremely stony clay loam; massive structure
DESCRIPTION OF SOILS

AREA 1

0 – 30 cm depth

Well structured light brown sandy clay loam (typical of topsoil found within the Banbury Association)

30 – 200 cm depth

Heavily compacted, very poorly structured mottled fine sandy clay

200 + cm depth

Ironstone

AREA 2

0 – 120 cm depth

Heavily compacted, very poorly structured stony reddish brown sandy clay

120 + cm depth

Ironstone
PHOTOGRAPHS OF TRIAL PITS

PIT 1
Ecological Survey of Nimble Tailor’s Close, Burton Latimer, Northamptonshire

Carried out on behalf of Barton Plant Ltd by Philip Irving

July 2008
Nimble Tailor’s Close Ecological Survey

Surveyor Experience and Competence

This survey has been undertaken by Philip Irving, who works as a Senior Ecologist with the Greensand Trust, a Countryside Management Project based in Bedfordshire. He has worked for the Greensand Trust for over ten years providing ecological advice on the management of Trust sites and writing management plans for them.

He also undertakes survey work for other organisations and ecological consultants including surveys for bats and other protected species, and habitat and botanical surveys.

Date of Survey: 29.07.08

Introduction

Nimble Tailor’s Close consists of a field of grassland c. 5.6 ha in area to the west of the offices of Barton Plant Ltd near Burton Latimer at Grid Reference SP914760. The field is the subject of a planning application to import inert waste, largely in the form of soils, to raise the level of the field surface to facilitate better agricultural use. The survey describes the habitats and species that are present and assesses their importance for biodiversity.

The weather on the day of the survey was dry and warm (c.21°C) with sunny intervals.

Site Description

Grassland

The grassland in the field consists of a disturbed, species poor community (see cover photo) mostly dominated by a range of grasses including red fescue (*Festuca rubra*), Yorkshire fog (*Holcus lanatus*), barren brome (*Bromus sterilis*), wild oat (*Avena fatua*), rough meadow grass (*Poa trivialis*), creeping bent (*Agrostis stolonifera*) and soft brome (*Bromus hordeaceus*) with occasional perennial rye grass (*Lolium perenne*) and false oat grass (*Arrhenatherum elatius*) mainly along the margins.

Most of the herbs recorded consist of species typical of disturbed habitats and waste places. The southwest section of the field contains abundant ragwort (*Senecio jacobaea*) with large areas dominated by field horsetail (*Equisetum arvense*) in the southern half of the main area of the field. Ragwort is rare elsewhere in the field with bristly ox-tongue (*Picris echioides*) locally frequent and large patches of hairy tare (*Vicia hirsuta*) in the north of the field.
Other herbs recorded include locally frequent creeping and spear thistle (*Cirsium arvense* and *C. vulgare*), creeping buttercup (*Ranunculus repens*) and willowherb sp. (*Epilobium* sp.), with occasional field forget-me-not (*Myosotis arvensis*), scarlet pimpernel (*Anagallis arvensis*), cut-leaved cranesbill (*Geranium dissectum*) and ribwort plantain (*Plantago lanceolata*), and small amounts of black medick (*Medicago lupulina*), common vetch (*Vicia sativa*), smooth hawksbeard (*Crepis capillaris*), common poppy (*Papaver rhoesia*), red bartsia (*Odontites verna*), red clover (*Trifolium pratense*), rosebay willowherb (*Chamerion angustifolium*), white campion (*Silene alba*), hedge mustard (*Sisymbrium officinale*), dandelion (*Taraxacum vulgaris*), prickly lettuce (*Lactuca serriola*), hop trefoil (*Trifolium campestre*), smooth tare (*Vicia tetrasperma*), broad-leaved dock (*Rumex obtusifolius*), scentless mayweed (*Tripleurospermum inodorum*), ash (*Fraxinus excelsior*) seedlings and one plant of common centaury (*Centaurium erythraea*).

Some of the field margins adjacent to the hedgerows support coarser ruderal vegetation dominated by nettle (*Urtica dioica*) and creeping thistle, with occasional lesser burdock (*Arctium minus*), great willowherb (*Epilobium hirsutum*), perennial sow-thistle (*Sonchus arvensis*) and hemlock (*Conium maculatum*).

The southeast boundary of the field is marked along most of its length by a bank of species poor MG1-Arrhenatherum grassland dominated by false oat grass with occasional field bindweed (*Convolvulus arvensis*), hogweed (*Heracleum sphondylium*), nettle and creeping thistle. Of more interest is occasional field scabious (*Knautia arvensis*), bladder campion (*Silene vulgaris*) and greater knapweed (*Centaurea scabiosa*), mainly along the base of the bank, species typical of more diverse neutral/calcareous grassland communities.

**MG1 grassland along southeast boundary bank**

**Hedgerows**

The hedgerows around the other boundaries of the field are dominated by hawthorn (*Crataegus monogyna*) with occasional elder (*Sambucus nigra*), elm (*Ulmus sp.*), bramble (*Rubus fruticosus*), dog rose (*Rosa canina*) and white bryony (*Bryonia dioica*). The hedges around the main, northern section are kept trimmed between 2-
3m in height, while those around the southwestern section are taller and more overgrown, are situated on 2-3m high banks, and contain occasional ash standards and one sycamore (*Acer pseudoplatanus*).

**Eastern boundary hedgerow**

**Fauna** – Aside from the badger sett that is present along the eastern hedgerow, the only other mammals recorded consisted of brown hare and rabbit. About 3 skylarks were disturbed while walking through the northern half of the field. Butterflies recorded included peacock, gatekeeper, ringlet and large white, and Roesel’s bush crickets were heard calling in the grassland.

**Assessment**

The grassland in the field consists of a disturbed, species poor community of little biodiversity interest, dominated by grasses with common herbs mostly typical of disturbed ground and waste places. The only indicators of more interesting grassland communities were small populations of field scabious, greater knapweed and bladder campion along the southeast boundary bank, and these are not particularly rare species in the county.

The hedgerows and mature trees provide additional habitats though the hedges are mostly dominated by hawthorn and are not of great biodiversity value, though are of general value for wildlife e.g. for bird nesting, invertebrates and small mammals.

Skylark and brown hare were recorded in the field which are priority species in the Northamptonshire Biodiversity Action Plan (BAP), though are also likely to make use of much of the surrounding farmland.
Nimble Tailor's Close Ecological Survey

- Trimmed hedgerows
- Patches of hairy tare in grassland
- Areas dominated by field horsetail
- No bank
- One plant of common centaury
- Occasional field scabious, greater knapweed and bladder campion along base of grassy bank

**Key**
- Site boundary
- Hedgerow
- Mature tree (ash mainly)