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WOODCROFT FARM, WECOCK

Hedgerow Survey

Grainger Plc

17/05/2013

Quality Management

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WOODCROFT FARM, WECOCK

Hedgerow Survey

17/05/2013

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Executive Summary

WSP Environmental Ltd (WSPE) was commissioned by Savills L&P Ltd on behalf of Grainger plc to undertake a hedgerow survey of the hedgerows within Woodcroft Farm, near Wecock, Hampshire.

This report has been prepared to support the planning application for Proposed Development of the Site.

The hedgerow survey comprised an assessment of a total of fourteen hedgerows within the Site, and two adjacent hedgerow sections to determine if they qualified as 'important hedgerows' under the ecological criteria of the Hedgerow Regulations 1997. Ecological characteristics of the hedgerows were surveyed and additional criteria such as associated ditches and walls recorded.

Eight of the sixteen surveyed hedgerows meet at least one of the ecological criteria classifying them as Important under the Hedgerow Regulations 1997. The remaining hedgerows do not qualify as 'important hedgerows' based on existing ecological data. However, it should be noted that these hedgerows may qualify as 'important hedgerows' if they are found to support legally protected or declining species, which are the subject of separate surveys, or under historical criteria.

It is recommended that, where possible, hedgerows identified as Important are retained. Where impacts are unavoidable the proposed masterplan should aim to minimise these impacts i.e. removing only necessary sections of important hedgerow, and minimising the number of breaches. Existing breaches should be utilised where possible. Alternatively, sections of less value (i.e. dominated by only a single species or exhibiting signs of recent disturbance or degradation) should be targeted to avoid loss of species-rich sections. In all instances mature hedgerow trees (standards) should be retained as far as possible.

Where breaches or loss of hedgerow sections are unavoidable this should be mitigated for by the creation of new hedgerows (including consideration of hedgerow translocation methods, where appropriate). These new hedgerows should reflect the species composition of the existing hedgerows and be positioned to connect retained hedgerows and pond features, ensuring connective corridors across the Site.

Those hedgerows which do not qualify as 'Important' under the Hedgerow Regulations 1997 are still considered to provide an ecologically valuable resource and all hedgerows on the Site qualify as UK BAP priority habitat. For this reason, in addition to avoiding impacts to 'Important' hedgerows, the masterplan should also aim to prevent fragmentation of the wider hedgerow network across the Site and maintain as many connecting hedgerows and features i.e. woodlands and ponds, as possible.

1 Introduction

1.1 Background

- 1.1.1 Woodcroft Farm (hereafter referred to as the 'Site') is a 9.7 hectare area of land located adjacent to Wecock, Hampshire (central Ordnance Survey Grid Reference: SU 682 120).
- 1.1.2 The Site is allocated as a strategic site within Havant Borough Council's Core Strategy (HBC, 2011) for a 340 unit mixed use development. It is also listed within the Strategic Housing Land Availability Assessment (HBC, 2012) as an allocated strategic site for 320 dwellings. Grainger plc's proposals for the Site comprise development of 293 dwellings and include retention of the locally listed farmhouse, with the remaining outbuildings to be demolished. A replacement playing field for the school located immediately to the south will be created within the most easterly field; and a bridleway will be diverted, likely running adjacent to one of the existing hedges. Proposals include retention of the majority of the hedges and mature treelines. The proposals are hereafter referred to as the 'Proposed Development'.
- 1.1.3 WSP Environmental Ltd (WSPE) were commissioned by Savills L&P Ltd on behalf of Grainger plc, to undertake a hedgerow survey of all hedgerows within the study area (hereafter referred to as the Site); and in addition to survey the two hedgerows between the access track along the southern Site boundary and the school located to the south, for the length of the school boundary.
- 1.1.4 The need for the survey was identified within an Extended Phase I Habitat Survey undertaken by WSPE in July 2011 (WSPE, 2011). This identified the presence of a number of hedgerows within the Site that had the potential to be 'Important' under the Hedgerow Regulations 1997.
- 1.1.5 Notes and limitations of survey work are included in Appendix A.

1.2 Aims and Objectives

- 1.2.1 The aim of the survey was to undertake an appraisal of the hedgerows with potential to be affected by the development to ascertain the following:
 - Whether the hedgerows could be classed as Important according to the ecological criteria listed in the Hedgerows Regulations, 1997; and
 - What type of mitigation measures would need to be employed to mitigate for unavoidable hedgerow loss or hedgerow breaches.

1.3 Site Description

- 1.3.1 Woodcroft Farm (hereafter known as the 'Site') is located in an agricultural landscape, adjacent to the residential area of Wecock in the Borough of Havant, Hampshire. Approximately 9.7 hectares in size it comprises six fields of close-grazed semi-improved grassland, separated by mature hedgerows; an occupied house and associated gardens; and an area of hard standing with a number of stable blocks and sheds. There is also a small area behind the sheds filled with old cars and other disused vehicles. A surfaced lane runs along the southern boundary of the Site, providing access to the buildings, whilst in the southern corner of the north western field there is a small sand riding arena. The Site boundary is shown on Figure 1.
- 1.3.2 The Site is accessible from Woodcroft Lane to the east, with a public bridleway running along the southern and western boundaries of the Site. The southern boundary of the Site runs parallel to the

edge of the Wecock residential area whilst Lovedean residential area lies to the east. Immediately to the west lies an arable field, whilst to the north lie further horse pastures and James's Copse, which is an ancient semi-natural woodland.

1.4 Legislation and Policy

- 1.4.1 The Hedgerow Regulations 1997 apply to all hedgerows with the exception of those within the curtilage of, or marking the boundary of the curtilage of, a dwelling house. Under the Regulations it is illegal to remove or destroy hedgerows without permission from the local planning authority.
- 1.4.2 Whilst consent from the Local Planning Authority (LPA) is required before removing all hedgerows, the Regulations require that the LPA does not issue a hedgerow retention notice (following receipt of an application for removal) unless the hedgerow qualifies as an 'important' hedgerow under the Regulations.
- 1.4.3 Important hedgerows must be over 30 years old and fulfil at least one of the criteria in part II of Schedule 1 of the Regulations.
- 1.4.4 The UK Biodiversity Action Plan (2007) defines a hedgerow as any boundary line of trees or shrubs over 20 metres long and less than 5 metres wide, and where any gaps between the trees or shrub species are less than 20 metres wide. All hedgerows consisting predominantly (i.e. 80% or more cover) of at least one woody UK native species are covered by this Priority Habitat.
- 1.4.5 Hampshire also has a Local Habitat Action Plan for hedgerows. This plan aims to protect and enhance hedgerows in Hampshire through the objectives listed below:
 - Ensure no further net loss of hedgerows;
 - Increase the extent of hedgerows;
 - Enhance the habitat value of hedgerows;
 - Ensure the requirements of all priority species found within hedgerows are met;
 - Improve knowledge of hedgerows in Hampshire through survey and monitoring; and
 - Promote to value of hedgerows and greater awareness of hedgerow issues.

2 Methods

2.1 Desk Study

- 2.1.1 The Multi-Agency Geographical Information for the Countryside (MAGIC) web-resource was consulted to determine if the hedgerows are adjacent to a bridleway or footpath, a road used as a public path, or a byway open to all traffic.

2.2 Field Survey

- 2.2.1 The field survey was conducted on the 13th September 2011 by Rosie Hall AIEEM, Consultant Ecologist with WSPE, assisted by Jo Fewtrell, Assistant Ecologist with WSPE.
- 2.2.2 In accordance with the Hedgerows Regulations 1997 a hedgerow is measured from the point or points where it meets another hedgerow(s) or where there is a gap of more than 20 metres between the end of the hedgerow and the nearest line of hedge. Gaps within a hedgerow are included in the total length as long as they are 20 metres or less in length. Lines of trees were also included within the hedgerow assessments where they were longer than 20m and less than 5m wide.
- 2.2.3 Notes were made on the following in accordance with the criteria outlined in Schedule 1 of the Hedgerows Regulations 1997 (see Appendix B):
- Number of woody species, on average, in a 30 metre length;
 - Presence of rare tree species such as black poplar *Populus nigra ssp. betulifolia*, large-leaved lime *Tilia platyphyllos* and small-leaved lime *Tilia cordata* and wild service tree *Sorbus torminalis*;
 - Number of standard trees, on average, within each 50 metre section;
 - Number of gaps in the hedge;
 - Presence of woodland ground flora species listed in Schedule 2 of the Hedgerow Regulations;
 - Presence of ditches, banks or walls;
 - Number of connections with other hedgerows, ponds or woodland;
 - Presence of parallel hedgerows within 15 metres of the hedge; and
 - Presence of bridleways, footpaths, byways or public paths.
- 2.2.4 The number of woody species present per 30 metre stretch was recorded in the following manner:
- Where the length of the hedgerow did not exceed 30 metres, the total number of woody species present in the hedgerow was recorded;
 - Where the hedgerow was between 30 metres and 100 metres, the number of woody species present in the central 30 metre stretch was recorded;
 - Where its length was between 100 metres and 200 metres, the number of woody species present in the central 30 metre stretches of the two halves of the hedgerow were recorded and the mean of the two calculated; and
 - Where the length of the hedgerow was over 200 metres, the numbers of woody species present in the central 30 metre stretch of each third of the hedgerow were recorded and the mean of the three calculated.
- 2.2.5 During the field survey further details, not required under the Regulations, were recorded, such as hedgerow height, width, integrity, structure, and management history.

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- 2.2.6 Two 1 metre by 2 metre quadrats of ground flora were also undertaken within each 30m stretch surveyed.
 - 2.2.7 In addition details of any veteran trees were also recorded in accordance with the Hedgerow Survey handbook (2nd Edition) (DEFRA, 2007), including whether these support; dead wood, loose/split/missing/dead bark, bark sap runs, tears/splits/scars/lightning strikes, hollow trunks or major limbs, and major rot sites.

2.3 Assessment

- 2.3.1 To be classified as important under The Hedgerow Regulations 1997, a hedgerow must be at least 30 years old and meet at least one of the eight criteria set out in Schedule 1 of The Hedgerow Regulations 1997, summarised in Appendix B.

Excluded Criteria

- 2.3.2 One qualifying criterion within the Hedgerow Regulations relates to the hedgerows ability to support protected species. The wording is as follows “Evidence of certain categories of species of birds, animals or plants listed in Schedules 1, 5 and 8 of the Wildlife and Countryside Act or the Joint Nature Conservation Committee (JNCC) publications such as British Red Data Books.” It is not possible to establish the presence of certain protected species within one visit; therefore information relating to protected species within the hedgerows has been considered under separate assessments of the Site.
- 2.3.3 Criteria 1 to 5 relate to the archaeology and history of the hedge and therefore were excluded from this assessment, which purely considers the ecological value of the hedge.

2.4 Limitations

- 2.4.1 Sufficient survey effort was considered to have been achieved through the survey of only one side of each hedgerow.
- 2.4.2 The surveys were undertaken within the appropriate season for hedgerow surveys, with runs from April to October. Whilst the surveys were undertaken outside the ‘optimal’ season of May and June and therefore the timing may have missed some woodland ground flora species such as bluebell *Hyacinthoides non-scripta*, this is not considered to have affected the robustness of the survey or the survey conclusions. The results of the survey and assessment work are representative at the time of surveying.

3 Results and Assessments

3.1 Results and Assessments

- 3.1.1 The results of the desk and field study have been assessed within Table 1, overleaf, with each hedgerow shown on Figure 1. Complete field survey sheets are presented within Appendix C. A total of sixteen hedgerows were surveyed.
- 3.1.2 The network of hedgerows across the Site comprises old field boundaries in which many mature standard trees have been allowed to develop. This number of mature standards, combined with long term intensive flailing of the shrub layer of these hedgerows means several have become gappy, to the extent that those along the northern boundary are defunct; comprising lines of mature oaks with few leggy hawthorn and elder shrubs beneath. Other hedgerows, including those along the southern and western boundaries, are intact and species rich. Others resemble narrow woodland strips as they have not been managed as hedgerows for a significant time period; for example that to the east of the Site and the hedgerows south of the access track adjacent to the school.
- 3.1.3 The woody species diversity of the hedgerows is varied, with 25% of the hedgerows containing 7 or more woody species, whilst 50% contain fewer than 4 species. This disparity reflects the two hedgerow types present on the Site, those which are intact and species rich, and those where the shrub layer has been largely shaded out by mature trees, and which are species poor as a consequence. Butcher's broom *Ruscus aculeatus*, a woody species associated with old woodland and hedgerows was present in three hedgerows.
- 3.1.4 The ground flora along most of the hedgerow bases is dominated by species poor semi-improved grassland, which is close-grazed to the base of the hedgerows. There is little 'woodland' ground flora present, with the exception of H1, H3, H5 and H9 no 'woodland' species were identified within the ground flora quadrats. This is likely due to grazing intensity across the Site preventing development of a broad hedgerow margin; though some woodland flora, such as bluebells, would no longer be evident in September. Woodland ground flora species present included:
- Wood false brome *Brachypodium sylvaticum*;
 - Enchanter's nightshade *Circaea lutitiana*;
 - Wood sedge *Carex sylvatica*;
 - Herb Robert Geranium *robertianum*; and
 - Wood avens *Geum urbanum*.
- 3.1.5 A large number of mature standard trees are present, with ten hedgerows including trees with veteran features; the majority of these features are dead limbs and long splits, though some rot sites are also present.

Important hedgerows

- 3.1.6 All hedgerows on the Site are believed to be over 30 years old and therefore meet the first requirement of an 'Important' hedgerow.
- 3.1.7 8 of the 16 hedgerows meet at least one of the ecological criteria classifying them as Important. These are hedgerows 1, 3, 4, 5, 9, 13, 17 and 18. These hedgerows generally qualify as Important due to the number of woody species they support. Good connectivity to other features such as hedgerows and woodland and the presence of standard trees are the most frequently occurring associated features; with dry ditches, small banks and parallel hedgerows also featuring.

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- 3.1.8 The eight hedgerows which are not considered important under the ecological criteria of the hedgerow regulations fall into two categories; they are either defunct hedgerows comprising lines of mature oaks, or they are species poor hedgerows.
- H2, H11, H10 and H12 comprise lines of mature oaks, with little shrub layer in the case of H10 and H11 and a uniform, blackthorn, shrub layer in the case of H2 and H12. As a result these are species poor and do not qualify as important hedgerows under the Hedgerow Regulations; however these mature tree lines are of ecological value in their own right.
 - H15 and H16 are species poor as a result of intensive management, primarily comprising immature ash, with extensive bramble cover and occasional elder. H6 and H8 form the boundary of the curtilage of the farmhouse and are also species poor; H8 has a significant coniferous content whilst neither contains mature standard trees.
- 3.1.9 These eight hedgerows may be important under archaeological criteria, which have not been included in this assessment, or through supporting protected, rare or declining species. Assessment of whether a hedge supports these species is more complex and cannot be assessed within one survey visit; therefore the presence of such species is being assessed separately.

Table 1 Hedgerow Survey Results

	Hedgerow Number							
Ecological criteria	H1	H2	H3	H4	H5	H6	H8	H9
7 woody species	X	X	Yes	Yes	Yes	X	X	X
6 woody species and 3 associated features	Yes	X	Yes	X	Yes	X	X	X
6 woody species, including black poplar, large leaved lime, small leaved lime, wild service tree	X	X	Yes	X	X	X	X	X
5 woody species and 4 associated features	Yes	X	Yes	X	Yes	X	X	Yes
Is adjacent to a PROW and includes 4 woody species and 2 associated features	Yes	X	Yes	X	Yes	X	X	Yes
Important	Yes	No	Yes	Yes	Yes	No	No	Yes
Curtilage of dwelling	X	X	X	X	X	Yes (in part)	Yes	X

	Hedgerow Number							
Ecological criteria	H10	H11	H12	H13	H15	H16	H17	H18
7 woody species	X	X	X	Yes	X	X	X	X
6 woody species and 3 associated features	X	X	X	Yes	X	X	X	Yes
6 woody species, including black poplar, large leaved lime, small leaved lime, wild service tree	X	X	X	X	X	X	X	X
5 woody species and 4 associated features	X	X	X	Yes	X	X	X	Yes
Is adjacent to a PROW and includes 4 woody species and 2 associated features	X	X	X	Yes	X	X	Yes	Yes
Important	No	No	No	Yes	No	No	Yes	Yes
Curtilage of dwelling	X	X	X	X	X	X	X	X

4 Discussions and Recommendations

4.1 Impacts

4.1.1 Due to the presence of eight Important hedgerows on the Site and a further eight hedgerows which do not qualify as Important but do qualify as UK BAP Priority hedgerows, the following potential impacts have been identified as a result of development on the Site:

- Loss of Important hedgerows, UK BAP Priority hedgerows and veteran trees;
- Breaching of Important hedgerows and UK BAP Priority hedgerows for new roads and access ways;
- Disturbance to Important hedgerows, UK BAP Priority hedgerows and veteran trees from adjacent ground works.

4.2 Recommendations

4.2.1 It is recommended that hedgerows identified as Important are retained where possible. The information provided in this report should be used to inform the development of the master plan to enable the retention and protection of as many important hedgerows as possible and to ensure the maintenance of a network of ecologically valuable hedgerows across the Site. Fragmentation of these hedgerows should ideally be avoided and the masterplan should seek to enhance connections to features such as woodlands and ponds.

4.2.2 Where impacts are unavoidable the proposed masterplan should be amended to minimise these impacts i.e. removing only necessary sections of Important hedgerow, targeting sections dominated by only a single species or exhibiting signs of recent disturbance or degradation. In all instances mature standard trees should be avoided.

4.2.3 Where breaches or loss of hedgerow sections are unavoidable this should be mitigated for by innovative design options such as;

- Planting of large standards (e.g. oak) at either side of the breach to result in 'archways' over the breach, thereby minimising gaps in the long term;
- Coordination of lighting strategy with hedgerow connectivity, to ensure that breaches in the hedgerow network remain dark (thereby maintaining dark corridors through the Site, which can be particularly important for bats); and
- Strategic placing of 'permeable' habitats to reduce fragmentation effects – e.g. positioning SUDs, recreational areas, gardens, allotments, 'living walls' and other soft-landscaping features within former hedge lines to 're-connect' any necessary breaches in the hedgerow network.

4.2.4 Furthermore, any net loss of hedgerow habitat across the Site should be compensated for through new hedgerow habitat creation, using native species planting. This planting should endeavour to link up ponds, woodlands and existing hedgerows wherever possible to ensure a well-connected hedgerow network is retained within the development.

4.2.5 Species composition of the new hedgerows should be based on existing hedgerows in the area, and planted with native whips of local provenance (or salvaged material from any hedgerows removed from the Site). Stock-proof barriers should be used where these new hedgerows are to edge fields. Therefore, shrub species planted should be primarily *Crataegus monogyna*, blackthorn *Prunus spinosa* and field maple *Acer campestre*, with other species selected from hazel *Coryllus avellana*,

dog rose *Rosa canina*, holly *Ilex aquifolium*, Butcher's broom *Ruscus aculeatus* and yew *Taxus baccata*. Elder *Sambucus nigra* and more vigorous willow *Salix* species should not be included as they tend to dominate their position and suppress other species, for similar reasons beech *Fagus sylvatica* is not recommended as a standard tree. Oak *Quercus robur* and ash *Fraxinus excelsior* should be included as standard trees; these should be included at 40-50m intervals (Gilbert and Anderson, 1998). Hedgerow ground flora should also be encouraged either through seeding or by the translocation of higher quality topsoil from the base of hedgerows which are to be lost (Gilbert & Anderson, 1998).

- 4.2.6 Where possible, a band of at least 1-2 metres from the hedgerow base should be maintained with light mowing in September once every two years to create an 'edge' habitat (similar to that routinely created by forestry practices within woodland rides). Wider buffer zones should be allowed in the lower density regions of the Proposed Development i.e. adjacent to recreational areas and surrounding countryside, within which wide 'edge habitats' of several meters can be promoted.
- 4.2.7 Hedgerows should be maintained on rotation, with a third flailed each year in September to allow a diverse structure to develop but prevent the hedgerows from becoming too tall and woody (Gilbert & Anderson, 1998). Hedgerows which are to be retained across the Site should be enhanced where appropriate i.e. through planting of gaps, laying of tall and woody sections etc.
- 4.2.8 Protection fencing should be installed to protect retained hedgerows and trees during construction in accordance with BS5837:2005 standards.

5 References

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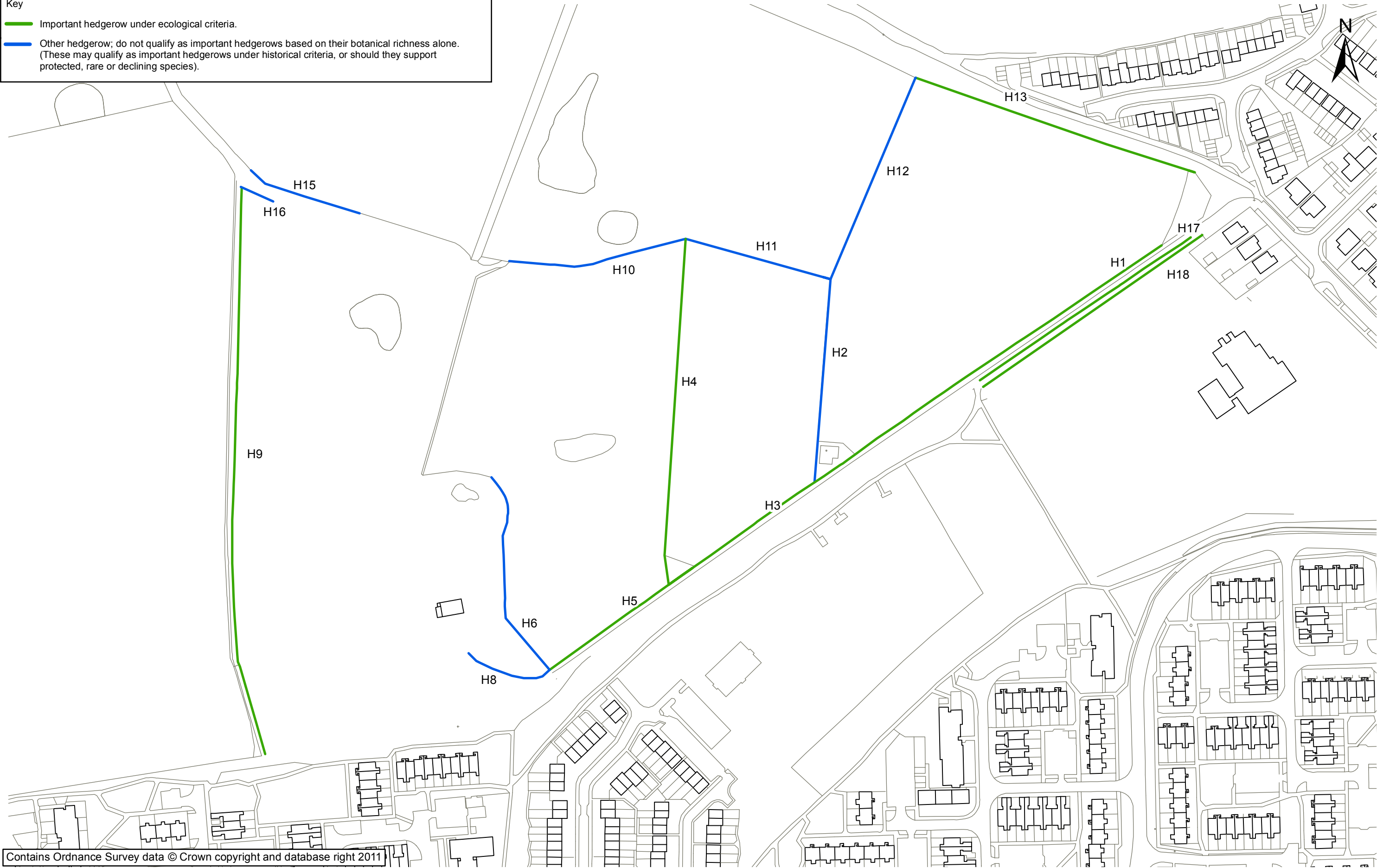
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Figure 1 - Location of Hedgerows

Key

Important hedgerow under ecological criteria.

Other hedgerow; do not qualify as important hedgerows based on their botanical richness alone.
(These may qualify as important hedgerows under historical criteria, or should they support protected, rare or declining species).



Appendix A Notes and limitations of survey work

These Notes and Limitations cover ecological work undertaken by WSP Environmental and its sub-contractors. They are additional and complimentary to WSP Environmental's Standard Terms and Conditions, and should be read in association with them.

1. WSP Environmental staff and their sub-consultants have endeavoured to identify the presence of protected species wherever possible on site, where this falls within the agreed scope of works.
2. Up to date standard methodologies have been used, which are accepted by English Nature and other statutory conservation bodies. No responsibility can be accepted where these methodologies fail to identify all species on site. WSP cannot take responsibility where Government, national bodies or industry subsequently modify standards.
3. The results of the survey and assessment work undertaken by WSP Environmental are representative at the time of surveying.
4. WSP Environmental will advise on the optimum survey season for a particular habitat/species prior to undertaking the survey work. However, WSP cannot accept responsibility for the accuracy of surveys undertaken outside this period.
5. WSP Environmental cannot accept responsibility for data collected from third parties.
6. Optimum conditions for alien species surveys i.e. Japanese knotweed, Giant hogweed and Himalayan balsam, are between the months of April and September inclusive. WSP Environmental will advise on the presence of the species although strategies to deal with their eradication are subject to a separate scope of works.

Appendix B Criteria for Classifying Important Hedgerows

[Taken from the Hedgerow Regulations, 1997]

Subject to regulation 8 (4), hedgerows are important for the purposes of The Hedgerows Regulations 1997 if:

- They have been in existence for 30 years or more; and
- They satisfy at least one of the criteria set out in Part II of Schedule 1 to the Regulations.

The criteria set out in Part II of Schedule 1 of the Hedgerows Regulations (1997) are as follows:

1. The hedgerow marks a boundary, or part of a boundary, of a pre-1850 parish or township.
2. The hedgerow incorporates an archaeological feature which is included in the schedule of monuments under section 1 of the Ancient Monuments and Archaeological Areas Act 1979 or recorded in a Sites and Monuments Record.
3. The hedgerow is situated wholly or partly within an archaeological site included or recorded as mentioned above or on land adjacent to and associated with such a site and is associated with any monument or feature on that site.
4. The hedgerow marks the boundary of a pre-1600 estate or manor or is visibly related to any building or feature of such an estate or manor.
5. The hedgerow is an integral part of a field system pre-dating the Inclosure Acts or is part of, or visibly related to, any building or feature associated with such a system.
6. The hedgerow contains floral or faunal species that are protected under the Wildlife and Countryside Act (1981), categorised as 'endangered,' 'extinct,' 'rare,' or 'vulnerable' in Britain or bird species that are categorised as a declining breeder.
7. The hedgerow includes one of the following:
 - At least 7 woody species listed in Schedule 3 of the Regulations
 - At least 6 woody species and has at least 3 of the associated features specified below.
 - At least 6 woody species including Black Poplar, Large-leaved Lime, Small-leaved Lime or Wild Service Tree.
 - At least 5 woody species and has at least 4 of the associated features specified below
 - In counties of northern England the number of woody species required to meet this criterion is reduced by one.
8. The hedgerow is adjacent to a bridleway or footpath, a road used as a public path, or a byway open to all traffic and includes at least 4 woody species and has at least 2 of the features specified below.

The associated features are as follows

- A bank or wall which supports the hedgerow at least one half of its length;
- Gaps which in aggregate do not exceed 10% of the length of the hedgerow;
- At least an average of one standard tree per 50 m of hedgerow. A standard tree, in the case of a single stemmed tree, is defined as one with a diameter of at least 20 cm measured at a point 1.3 m above natural ground level, or for a multi-stemmed tree, one with at least two stems whose diameters are at least 15 cm measured at a point 1.3 m above natural ground level;
- At least 3 ground flora woodland species (listed in Schedule 2 of the Regulations) within 1 m, in any direction, of the outermost edges of the hedgerow;
- A ditch along at least one half of the length of the hedgerow;

-
- Connections scoring four points or more, where a connection with another hedgerow counts as one and where a connection with a woodland, in which the majority of the trees are broad-leaved, or a pond counts as two;
 - A parallel hedge within 15 m of the hedgerow.

Appendix C Hedgerow data sheets

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	1	OS Grid Reference	
Photo no.		Length (m)	245

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	

Hedgerow Summary	
Average height of vegetation (m)	1.5
Average width of vegetation (m)	1
Side surveyed	S

Hedgerow type	
Shrubby hedgerow	X
Line of trees	
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Grazed on one side	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	X	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹					7	6	5
Black poplar/ lime/ service							Av 6

Associated Features							
Bank or wall (inc height) ³	25cm	Parallel hedge (within 15m)		X	Number of connections to ²	Hedges	2
Ditch (wet)		Gap as % of length		2 %		Woodland	1
Ditch (dry)	X	At least 3 woodland species within 1m of hedge				Ponds	0
No. of standard trees/ 50m	1						

Veteran Tree		Yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		X	Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long		X	Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long			Major rot sites any more than 15cm across	

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woody Species	30m sections %			Woody Species	30m sections %		
	1	2	3		1	2	3
Alder (<i>Alnus glutinosa</i>)				Hawthorn, midland (<i>Crataegus laevigata</i>)			
Apple, crab (<i>Malus sylvestris</i>)				Hazel (<i>Corylus avellana</i>)			
Ash (<i>Fraxinus excelsior</i>)	5	5	10	Holly (<i>Ilex aquifolium</i>)	5		5
Aspen (<i>Populus tremula</i>)				Hornbeam (<i>Carpinus betulus</i>)			
Beech (<i>Fagus sylvatica</i>)				Juniper, common (<i>Juniperus communis</i>)			
Birch, downy (<i>Betula pubescens</i>)				Lime, large-leaved (<i>Tilia platyphyllos</i>)			
Birch, silver (<i>Betula pendula</i>)				Lime, small-leaved (<i>Tilia cordata</i>)			
Black-poplar (<i>Populus nigra</i>)				Maple, field (<i>Acer campestre</i>)		5	
Blackthorn (<i>Prunus spinosa</i>)	5	10	5	Mezereon (<i>Daphne mezereum</i>)			
Box (<i>Buxus sempervirens</i>)				Oak, pedunculate (<i>Quercus robur</i>)	10		
Broom (<i>Cytisus scoparius</i>)				Oak, sessile (<i>Quercus petraea</i>)			
Buckthorn (<i>Rhamnus cathartica</i>)				Osier (<i>Salix viminalis</i>)			
Buckthorn, alder (<i>Frangula alnus</i>)				Pear, Plymouth (<i>Pyrus cordata</i>)			
Butcher's-broom (<i>Ruscus aculeatus</i>)				Pear, wild (<i>Pyrus pyrastrer</i>)			
Cherry, bird (<i>Prunus padus</i>)				Poplar, grey (<i>Populus x canescens</i>)			
Cherry, wild (<i>Prunus avium</i>)				Poplar, white (<i>Populus alba</i>)			
Cotoneaster, wild (<i>Cotoneaster integerrimus</i>)				Privet, wild (<i>Ligustrum vulgare</i>)			
Currant, downy (<i>Ribes spicatum</i>)				Rose (<i>Rosa species</i>)	5	10	5
Currant, mountain (<i>Ribes alpinum</i>)				Rowan (<i>Sorbus aucuparia</i>)			
Dogwood (<i>Cornus sanguinea</i>)				Sea-buckthorn (<i>Hippophae rhamnoides</i>)			
Elder (<i>Sambucus nigra</i>)				Service-tree, wild (<i>Sorbus torminalis</i>)			
Elm (<i>Ulmus species</i>)				Spindle (<i>Euonymus europaeus</i>)			
Gooseberry (<i>Ribes uva-crispa</i>)				Spurge-laurel (<i>Daphne laureola</i>)			
Gorse (<i>Ulex europaeus</i>)				Walnut (<i>Jugland regia</i>)			
Gorse, dwarf (<i>Ulex minor</i>)				Wayfaring tree (<i>Viburnum lantana</i>)			
Gorse, western (<i>Ulex gallii</i>)				Whitebeam (<i>Sorbus species</i>)			
Guelder rose (<i>Viburnum opulus</i>)				Willow (<i>Salix species</i>)	5		
Hawthorn (<i>Crataegus monogyna</i>)	65	65	75	Yew (<i>Taxus baccata</i>)		5	

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)			2.5			
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)					5	
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)			35	20		
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						20
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13.09.11
Hedge Reference	2	OS Grid Reference	
Photo no.		Length (m)	95m

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	3
Average width of vegetation (m)	1.5
Side surveyed	E

Hedgerow type	
Shrubby hedgerow	
Line of trees	
Shrubby with line of trees	X

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Grazed	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway		Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹		5					
Black poplar/ lime/ service		0					

Associated Features							
Bank or wall (inc height) ³	25cm	Parallel hedge (within 15m)			Number of connections to ²	Hedges	4
Ditch (wet)		Gap as % of length		30 %		Woodland	0
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	0
No. of standard trees/ 50m	2						

Veteran Tree		Yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		X	Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long		X	Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long			Major rot sites any more than 15cm across	X

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	3	OS Grid Reference	
Photo no.		Length (m)	95

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary		Hedgerow type	
Average height of vegetation (m)	1	Shrubby hedgerow	X
Average width of vegetation (m)	1	Line of trees	
Side surveyed	S	Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Grazed on one side	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	X	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m	>200m			
Number of woody species ¹		7					
Black poplar/ lime/ service	1 wild service						

Associated Features							
Bank or wall (inc height) ³	25cm	Parellel hedge (within 15m)		X	Number of connections to ²	Hedges	4
Ditch (wet)		Gap as % of length	2	%		Woodland	0
Ditch (dry)	X	At least 3 woodland species				Ponds	0
No. of standard trees/ 50m	3	within 1m of hedge					

Veteran Tree		Yes			
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	X	Hollow trunks or hollow major limbs			
Tears, splits, scars, lightning strikes more than 30cm long	X	Bark sap runs			
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across			

Protected species	
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Comments (including limitations and protected species)	
wood sedge is also present in ground flora	

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)	5					
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)		15				
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	4	OS Grid Reference	
Photo no.		Length (m)	199

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	4
Average width of vegetation (m)	2
Side surveyed	W

Hedgerow type	
Shrubby hedgerow	
Line of trees	
Shrubby with line of trees	X

Hedgerow shape			
Trimmed and dense	X	Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed		Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Grazed	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway		Rail		Other	

Woody species								
	<30m	>30m<100m	>100m<200m			>200m		
Number of woody species ¹			8	5	7			
Black poplar/ lime/ service								

Associated Features							
Bank or wall (inc height) ³		Parallel hedge (within 15m)			Number of connections to ²	Hedges	4
Ditch (wet)		Gap as % of length		20 %		Woodland	
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	
No. of standard trees/ 50m	4						

Veteran Tree		Yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		X	Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long		X	Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long			Major rot sites any more than 15cm across	

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	5	OS Grid Reference	
Photo no.		Length (m)	82

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	1.5
Average width of vegetation (m)	1
Side surveyed	S

Hedgerow type	
Shrubby hedgerow	X
Line of trees	
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Grazed on one side	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	X	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹		7					
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³	25cm	Parallel hedge (within 15m)		X	Number of connections to ²	Hedges	4
Ditch (wet)		Gap as % of length		5 %		Woodland	0
Ditch (dry)	X	At least 3 woodland species within 1m of hedge				Ponds	0
No. of standard trees/ 50m	1.5						

Veteran Tree		Yes					
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter			X	Hollow trunks or hollow major limbs			
Tears, splits, scars, lightning strikes more than 30cm long				Bark sap runs			
Loose split, missing and dead bark, any piece more than 30cm long				Major rot sites any more than 15cm across			

Protected species	
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Comments (including limitations and protected species)	
Also <i>Carex sylvatica</i>	

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)	20					
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	6	OS Grid Reference	
Photo no.		Length (m)	165

Hedgerow criteria					
Hedge >20m	X	Not	garden	Hedge has been in	
<20m but junctions at both ends		curtilage of residential	one side)	existence for 30 years	X

Hedgerow Summary		Hedgerow type	
Average height of vegetation (m)	4	Shrubby hedgerow	
Average width of vegetation (m)	2	Line of trees	
Side surveyed	E	Shrubby with line of trees	X

Hedgerow shape			
Trimmed	X	Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed		Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Grazed / mown in garden	

Adjacent land use / management					
Arable- crop	X	River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland		Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway		Rail		Other	Garden

Woody species								
	<30m	>30m<100m	>100m<200m			>200m		
Number of woody species ¹			3	4	4			
Black poplar/ lime/ service								

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)	X	Number of connections to ²	Hedges		2
Ditch (wet)		Gap as % of length	20 %		Woodland		0
Ditch (dry)	X	At least 3 woodland species			Ponds		1
No. of standard trees/ 50m	2	within 1m of hedge					

Veteran Tree	No						
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		Hollow trunks or hollow major limbs					
Tears, splits, scars, lightning strikes more than 30cm long		Bark sap runs					
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across					

Protected species	
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Comments (including limitations and protected species)
Gappy by pond, but if count willow in line of hedge as woody species is not a 20m gap to the hedge by barn and therefore surveyed as one.

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	8	OS Grid Reference	40
Photo no.		Length (m)	

Hedgerow criteria					
Hedge >20m	X	Not	garden 1 side	Hedge has been in existence for 30 years	X
<20m but junctions at both ends		curtilage of residential			

Hedgerow Summary	
Average height of vegetation (m)	3
Average width of vegetation (m)	1.5
Side surveyed	SW

Hedgerow type	
Shrubby hedgerow	
Line of trees	
Shrubby with line of trees	X

Hedgerow shape			
Trimmed and dense	X	Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed		Tall & leggy	
Recently laid		Other	
Hedgerow base management:			

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland		Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	Track	Rail		Other	Garden

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹		5					
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)		X	Number of connections to ²	Hedges	2
Ditch (wet)		Gap as % of length	0 %			Woodland	
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	
No. of standard trees/ 50m	0						

Veteran Tree	No
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	Hollow trunks or hollow major limbs
Tears, splits, scars, lightning strikes more than 30cm long	Bark sap runs
Loose split, missing and dead bark, any piece more than 30cm long	Major rot sites any more than 15cm across

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	9	OS Grid Reference	
Photo no.		Length (m)	332

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	5
Average width of vegetation (m)	3
Side surveyed	E

Hedgerow type	
Shrubby hedgerow	X
Line of trees	
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense	X (field)	Untrimmed	
Untrimmed with outgrowth	X (lane)	Recently coppiced	
Intensively managed		Tall & leggy	
Recently laid		Other	
Hedgerow base management:		grazed one side	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	Bridleway	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹					4	7	5
Black poplar/ lime/ service							

Associated Features						
Bank or wall (inc height) ³		Parellel hedge (within 15m)	X	Number of connections to ²	Hedges	3
Ditch (wet)		Gap as % of length	4 %		Woodland	1
Ditch (dry)		At least 3 woodland species			Ponds	0
No. of standard trees/ 50m	2	within 1m of hedge				

Veteran Tree		Yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	X	Hollow trunks or hollow major limbs		
Tears, splits, scars, lightning strikes more than 30cm long	X	Bark sap runs		
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across		

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)			5			
Wood false-brome (<i>Brachypodium sylvaticum</i>)			10			
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	10	OS Grid Reference	
Photo no.		Length (m)	110

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	Shrub-4m	Hedgerow type	
Average height of vegetation (m)	Tree-15m	Shrubby hedgerow	
Average width of vegetation (m)	0.5	Line of trees	X
Side surveyed	S	Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed		Tall & leggy	X
Recently laid		Other	Gappy
Hedgerow base management:		grazed	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway		Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹			3				
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³	20cm	Parallel hedge (within 15m)			Number of connections to ²	Hedges	3
Ditch (wet)		Gap as % of length		60 %		Woodland	0
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	0
No. of standard trees/ 50m	2						

Veteran Tree	Yes						
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		X	Hollow trunks or hollow major limbs				
Tears, splits, scars, lightning strikes more than 30cm long			Bark sap runs				
Loose split, missing and dead bark, any piece more than 30cm long			Major rot sites any more than 15cm across				

Protected species	
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Comments (including limitations and protected species)
Also tiny bit of holly. Some gaps are almost 20m, this is a line of mature oaks with a few leggy bits of elder and hawthorn. Gap at W end is just under 20m so does link with other hedges

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woody Species	30m sections %			Woody Species	30m sections %		
	1	2	3		1	2	3
Alder (<i>Alnus glutinosa</i>)				Hawthorn, midland (<i>Crataegus laevigata</i>)			
Apple, crab (<i>Malus sylvestris</i>)				Hazel (<i>Corylus avellana</i>)			
Ash (<i>Fraxinus excelsior</i>)				Holly (<i>Ilex aquifolium</i>)			
Aspen (<i>Populus tremula</i>)				Hornbeam (<i>Carpinus betulus</i>)			
Beech (<i>Fagus sylvatica</i>)				Juniper, common (<i>Juniperus communis</i>)			
Birch, downy (<i>Betula pubescens</i>)				Lime, large-leaved (<i>Tilia platyphyllos</i>)			
Birch, silver (<i>Betula pendula</i>)				Lime, small-leaved (<i>Tilia cordata</i>)			
Black-poplar (<i>Populus nigra</i>)				Maple, field (<i>Acer campestre</i>)			
Blackthorn (<i>Prunus spinosa</i>)				Mezereum (<i>Daphne mezereum</i>)			
Box (<i>Buxus sempervirens</i>)				Oak, pedunculate (<i>Quercus robur</i>)	5	10	
Broom (<i>Cytisus scoparius</i>)				Oak, sessile (<i>Quercus petraea</i>)			
Buckthorn (<i>Rhamnus cathartica</i>)				Osier (<i>Salix viminalis</i>)			
Buckthorn, alder (<i>Frangula alnus</i>)				Pear, Plymouth (<i>Pyrus cordata</i>)			
Butcher's-broom (<i>Ruscus aculeatus</i>)				Pear, wild (<i>Pyrus pyraeaster</i>)			
Cherry, bird (<i>Prunus padus</i>)				Poplar, grey (<i>Populus x canescens</i>)			
Cherry, wild (<i>Prunus avium</i>)				Poplar, white (<i>Populus alba</i>)			
Cotoneaster, wild (<i>Cotoneaster integerrimus</i>)				Privet, wild (<i>Ligustrum vulgare</i>)			
Currant, downy (<i>Ribes spicatum</i>)				Rose (<i>Rosa</i> species)	2.5		
Currant, mountain (<i>Ribes alpinum</i>)				Rowan (<i>Sorbus aucuparia</i>)			
Dogwood (<i>Cornus sanguinea</i>)				Sea-buckthorn (<i>Hippophae rhamnoides</i>)			
Elder (<i>Sambucus nigra</i>)	10	5		Service-tree, wild (<i>Sorbus torminalis</i>)			
Elm (<i>Ulmus</i> species)				Spindle (<i>Euonymus europaeus</i>)			
Gooseberry (<i>Ribes uva-crispa</i>)				Spurge-laurel (<i>Daphne laureola</i>)			
Gorse (<i>Ulex europaeus</i>)				Walnut (<i>Juglans regia</i>)			
Gorse, dwarf (<i>Ulex minor</i>)				Wayfaring tree (<i>Viburnum lantana</i>)			
Gorse, western (<i>Ulex gallii</i>)				Whitebeam (<i>Sorbus</i> species)			
Guelder rose (<i>Viburnum opulus</i>)				Willow (<i>Salix</i> species)			
Hawthorn (<i>Crataegus monogyna</i>)		5		Yew (<i>Taxus baccata</i>)			
				(Gap)	82.5	80	

Additional Ground Flora Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Yorkshire fog <i>Holcus lanatus</i>	15	10	10	10		
Bent <i>Agrostis</i> spp.	20	10	10	15		
Ivy <i>Hedera helix</i>	2.5		5			
Bramble <i>Rubus fruticosus</i> agg.	2.5	40	15			
Daisy <i>Bellis perennis</i>	2.5					
Scentless mayweed <i>Tripleurospermum</i>	2.5					
Ribwort plantain <i>Plantago lanceolata</i>	2.5	5				
White clover <i>Trifolium repens</i>	15					
Meadow grass <i>Poa</i> spp.	20	10	10	15		
Perennial rye grass <i>Lolium perenne</i>	15	10	10	10		
Red bartsia <i>Odontites vernus</i>	2.5					
Ground ivy <i>Glechoma hederacea</i>		10				
Dandelion <i>Taraxacum officinale</i> agg.		5		5		
Bare ground			35	20		
Ragwort <i>Senecio jacobaea</i>			5			
Nettle <i>Urtica dioica</i>				20		
Dock <i>Rumex</i> spp.				5		

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	11	OS Grid Reference	
Photo no.		Length (m)	84

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	5
Average width of vegetation (m)	1
Side surveyed	S

Hedgerow type	
Shrubby hedgerow	
Line of trees	X
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	X
Untrimmed with outgrowth		Recently coppiced	
Intensively managed		Tall & leggy	X
Recently laid		Other	
Hedgerow base management:		Grazed	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway		Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹		5					
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)			Number of connections to ²	Hedges	4
Ditch (wet)		Gap as % of length	35	%		Woodland	0
Ditch (dry)		At least 3 woodland species				Ponds	0
No. of standard trees/ 50m	4	within 1m of hedge					

Veteran Tree	yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long	x	Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across	

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woody Species	30m sections %			Woody Species	30m sections %		
	1	2	3		1	2	3
Alder (<i>Alnus glutinosa</i>)				Hawthorn, midland (<i>Crataegus laevigata</i>)			
Apple, crab (<i>Malus sylvestris</i>)				Hazel (<i>Corylus avellana</i>)			
Ash (<i>Fraxinus excelsior</i>)	2.5			Holly (<i>Ilex aquifolium</i>)	5		
Aspen (<i>Populus tremula</i>)				Hornbeam (<i>Carpinus betulus</i>)			
Beech (<i>Fagus sylvatica</i>)				Juniper, common (<i>Juniperus communis</i>)			
Birch, downy (<i>Betula pubescens</i>)				Lime, large-leaved (<i>Tilia platyphyllos</i>)			
Birch, silver (<i>Betula pendula</i>)				Lime, small-leaved (<i>Tilia cordata</i>)			
Black-poplar (<i>Populus nigra</i>)				Maple, field (<i>Acer campestre</i>)			
Blackthorn (<i>Prunus spinosa</i>)				Mezereon (<i>Daphne mezereum</i>)			
Box (<i>Buxus sempervirens</i>)				Oak, pedunculate (<i>Quercus robur</i>)	35		
Broom (<i>Cytisus scoparius</i>)				Oak, sessile (<i>Quercus petraea</i>)			
Buckthorn (<i>Rhamnus cathartica</i>)				Osier (<i>Salix viminalis</i>)			
Buckthorn, alder (<i>Frangula alnus</i>)				Pear, Plymouth (<i>Pyrus cordata</i>)			
Butcher's-broom (<i>Ruscus aculeatus</i>)				Pear, wild (<i>Pyrus pyraster</i>)			
Cherry, bird (<i>Prunus padus</i>)				Poplar, grey (<i>Populus x canescens</i>)			
Cherry, wild (<i>Prunus avium</i>)				Poplar, white (<i>Populus alba</i>)			
Cotoneaster, wild (<i>Cotoneaster integerrimus</i>)				Privet, wild (<i>Ligustrum vulgare</i>)			
Currant, downy (<i>Ribes spicatum</i>)				Rose (<i>Rosa</i> species)	5		
Currant, mountain (<i>Ribes alpinum</i>)				Rowan (<i>Sorbus aucuparia</i>)			
Dogwood (<i>Cornus sanguinea</i>)				Sea-buckthorn (<i>Hippophae rhamnoides</i>)			
Elder (<i>Sambucus nigra</i>)				Service-tree, wild (<i>Sorbus torminalis</i>)			
Elm (<i>Ulmus</i> species)				Spindle (<i>Euonymus europaeus</i>)			
Gooseberry (<i>Ribes uva-crispa</i>)				Spurge-laurel (<i>Daphne laureola</i>)			
Gorse (<i>Ulex europaeus</i>)				Walnut (<i>Jugland regia</i>)			
Gorse, dwarf (<i>Ulex minor</i>)				Wayfaring tree (<i>Viburnum lantana</i>)			
Gorse, western (<i>Ulex gallii</i>)				Whitebeam (<i>Sorbus</i> species)			
Guelder rose (<i>Viburnum opulus</i>)				Willow (<i>Salix</i> species)			
Hawthorn (<i>Crataegus monogyna</i>)	15			Yew (<i>Taxus baccata</i>)			

[illegible]

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	12	OS Grid Reference	
Photo no.		Length (m)	128

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary		Hedgerow type	
Average height of vegetation (m)	3	Shrubby hedgerow	
Average width of vegetation (m)	3	Line of trees	
Side surveyed	S	Shrubby with line of trees	X

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth	X	Recently coppiced	
Intensively managed		Tall & leggy	X
Recently laid		Other	Side trimmed low down
Hedgerow base management:		grazed	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway		Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹			5	4			
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)			Number of connections to ²	Hedges	3
Ditch (wet)		Gap as % of length	8	%		Woodland	1
Ditch (dry)		At least 3 woodland species				Ponds	0
No. of standard trees/ 50m	3	within 1m of hedge					

Veteran Tree	Yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	X	Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long		Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long	x	Major rot sites any more than 15cm across	x

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	13	OS Grid Reference	
Photo no.		Length (m)	150

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	5 (trees 20m)
Average width of vegetation (m)	3
Side surveyed	W

Hedgerow type	
Shrubby hedgerow	
Line of trees	
Shrubby with line of trees	x

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth	x	Recently coppiced	
Intensively managed		Tall & leggy	
Recently laid		Other	
Hedgerow base management:		none	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	x	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland	x	Woodland- young	
Track/footpath/bridleway	x	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹			7	6	7		
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)		x	Number of connections to ²	Hedges	1
Ditch (wet)		Gap as % of length	2	%		Woodland	2
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	0
No. of standard trees/ 50m	5						

Veteran Tree	yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	x	Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long	x	Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across	

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamiastrum galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	15	OS Grid Reference	
Photo no.		Length (m)	139

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	1.5
Average width of vegetation (m)	1
Side surveyed	

Hedgerow type	
Shrubby hedgerow	X
Line of trees	
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		grazed	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	Track	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹			3	3	3		
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)		X (at W end	Number of connections to ²	Hedges	3
Ditch (wet)		Gap as % of length	60	%		Woodland	0
Ditch (dry)		At least 3 woodland species				Ponds	0
No. of standard trees/ 50m	0	within 1m of hedge					

Veteran Tree	no		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long		Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across	

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woody Species	30m sections %			Woody Species	30m sections %		
	1	2	3		1	2	3
Alder (<i>Alnus glutinosa</i>)				Hawthorn, midland (<i>Crataegus laevigata</i>)			
Apple, crab (<i>Malus sylvestris</i>)				Hazel (<i>Corylus avellana</i>)			
Ash (<i>Fraxinus excelsior</i>)	10	15		Holly (<i>Ilex aquifolium</i>)			
Aspen (<i>Populus tremula</i>)				Hornbeam (<i>Carpinus betulus</i>)			
Beech (<i>Fagus sylvatica</i>)				Juniper, common (<i>Juniperus communis</i>)			
Birch, downy (<i>Betula pubescens</i>)				Lime, large-leaved (<i>Tilia platyphyllos</i>)			
Birch, silver (<i>Betula pendula</i>)				Lime, small-leaved (<i>Tilia cordata</i>)			
Black-poplar (<i>Populus nigra</i>)				Maple, field (<i>Acer campestre</i>)			
Blackthorn (<i>Prunus spinosa</i>)				Mezereon (<i>Daphne mezereum</i>)			
Box (<i>Buxus sempervirens</i>)				Oak, pedunculate (<i>Quercus robur</i>)			
Broom (<i>Cytisus scoparius</i>)				Oak, sessile (<i>Quercus petraea</i>)		5	
Buckthorn (<i>Rhamnus cathartica</i>)				Osier (<i>Salix viminalis</i>)			
Buckthorn, alder (<i>Frangula alnus</i>)				Pear, Plymouth (<i>Pyrus cordata</i>)			
Butcher's-broom (<i>Ruscus aculeatus</i>)				Pear, wild (<i>Pyrus pyraster</i>)			
Cherry, bird (<i>Prunus padus</i>)				Poplar, grey (<i>Populus x canescens</i>)			
Cherry, wild (<i>Prunus avium</i>)				Poplar, white (<i>Populus alba</i>)			
Cotoneaster, wild (<i>Cotoneaster integerrimus</i>)				Privet, wild (<i>Ligustrum vulgare</i>)			
Currant, downy (<i>Ribes spicatum</i>)				Rose (<i>Rosa</i> species)	2.5		
Currant, mountain (<i>Ribes alpinum</i>)				Rowan (<i>Sorbus aucuparia</i>)			
Dogwood (<i>Cornus sanguinea</i>)				Sea-buckthorn (<i>Hippophae rhamnoides</i>)			
Elder (<i>Sambucus nigra</i>)				Service-tree, wild (<i>Sorbus torminalis</i>)			
Elm (<i>Ulmus</i> species)				Spindle (<i>Euonymus europaeus</i>)			
Gooseberry (<i>Ribes uva-crispa</i>)				Spurge-laurel (<i>Daphne laureola</i>)			
Gorse (<i>Ulex europaeus</i>)				Walnut (<i>Jugland regia</i>)			
Gorse, dwarf (<i>Ulex minor</i>)				Wayfaring tree (<i>Viburnum lantana</i>)			
Gorse, western (<i>Ulex gallii</i>)				Whitebeam (<i>Sorbus</i> species)			
Gelder rose (<i>Viburnum opulus</i>)				Willow (<i>Salix</i> species)			
Hawthorn (<i>Crataegus monogyna</i>)	5	5		Yew (<i>Taxus baccata</i>)			
				gap	30	5	
				brambles	30	70	

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	16	OS Grid Reference	
Photo no.		Length (m)	30

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	2
Average width of vegetation (m)	1
Side surveyed	N

Hedgerow type	
Shrubby hedgerow	X
Line of trees	
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Mown/ grazed	

Adjacent land use/ management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland	X	Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	Track	Rail		Other	

Woody species								
	<30m	>30m<100m	>100m<200m			>200m		
Number of woody species ¹	3							
Black poplar/ lime/ service								

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)	X	Number of connections to ²	Hedges		3
Ditch (wet)		Gap as % of length	60 %		Woodland		0
Ditch (dry)		At least 3 woodland species within 1m of hedge			Ponds		0
No. of standard trees/ 50m	0						

Veteran Tree	No		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter		Hollow trunks or hollow major limbs	
Tears, splits, scars, lightning strikes more than 30cm long		Bark sap runs	
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across	

Protected species	
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Comments (including limitations and protected species)

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	17	OS Grid Reference	
Photo no.		Length (m)	140

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	4
Average width of vegetation (m)	0.5
Side surveyed	S

Hedgerow type	
Shrubby hedgerow	X
Line of trees	
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	
Untrimmed with outgrowth		Recently coppiced	
Intensively managed	X	Tall & leggy	
Recently laid		Other	
Hedgerow base management:		Mown on trackside	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland		Unimproved grass		Improved grass	
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	X	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹			4	6	5		
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³		Parellel hedge (within 15m)		X	Number of connections to ²	Hedges	1
Ditch (wet)		Gap as % of length	10 %			Woodland	1
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	
No. of standard trees/ 50m	2						

Veteran Tree		Yes		
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	X	Hollow trunks or hollow major limbs		
Tears, splits, scars, lightning strikes more than 30cm long	X	Bark sap runs		
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across		

Protected species	
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Comments (including limitations and protected species)
hedge between track and bridleway, parallel to H18

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

Woody Species	30m sections %			Woody Species	30m sections %		
	1	2	3		1	2	3
Alder (<i>Alnus glutinosa</i>)				Hawthorn, midland (<i>Crataegus laevigata</i>)			
Apple, crab (<i>Malus sylvestris</i>)				Hazel (<i>Corylus avellana</i>)			
Ash (<i>Fraxinus excelsior</i>)				Holly (<i>Ilex aquifolium</i>)	5	35	
Aspen (<i>Populus tremula</i>)				Hornbeam (<i>Carpinus betulus</i>)			
Beech (<i>Fagus sylvatica</i>)				Juniper, common (<i>Juniperus communis</i>)			
Birch, downy (<i>Betula pubescens</i>)				Lime, large-leaved (<i>Tilia platyphyllos</i>)			
Birch, silver (<i>Betula pendula</i>)				Lime, small-leaved (<i>Tilia cordata</i>)			
Black-poplar (<i>Populus nigra</i>)				Maple, field (<i>Acer campestre</i>)		20	
Blackthorn (<i>Prunus spinosa</i>)				Mezereon (<i>Daphne mezereum</i>)			
Box (<i>Buxus sempervirens</i>)				Oak, pedunculate (<i>Quercus robur</i>)	10	10	
Broom (<i>Cytisus scoparius</i>)				Oak, sessile (<i>Quercus petraea</i>)			
Buckthorn (<i>Rhamnus cathartica</i>)				Osier (<i>Salix viminalis</i>)			
Buckthorn, alder (<i>Frangula alnus</i>)				Pear, Plymouth (<i>Pyrus cordata</i>)			
Butcher's-broom (<i>Ruscus aculeatus</i>)				Pear, wild (<i>Pyrus pyraeaster</i>)			
Cherry, bird (<i>Prunus padus</i>)				Poplar, grey (<i>Populus x canescens</i>)			
Cherry, wild (<i>Prunus avium</i>)				Poplar, white (<i>Populus alba</i>)			
Cotoneaster, wild (<i>Cotoneaster integerrimus</i>)				Privet, wild (<i>Ligustrum vulgare</i>)			
Currant, downy (<i>Ribes spicatum</i>)				Rose (<i>Rosa</i> species)	5	5	
Currant, mountain (<i>Ribes alpinum</i>)				Rowan (<i>Sorbus aucuparia</i>)			
Dogwood (<i>Cornus sanguinea</i>)				Sea-buckthorn (<i>Hippophae rhamnoides</i>)			
Elder (<i>Sambucus nigra</i>)				Service-tree, wild (<i>Sorbus torminalis</i>)			
Elm (<i>Ulmus</i> species)				Spindle (<i>Euonymus europaeus</i>)			
Gooseberry (<i>Ribes uva-crispa</i>)				Spurge-laurel (<i>Daphne laureola</i>)			
Gorse (<i>Ulex europaeus</i>)				Walnut (<i>Juglans regia</i>)			
Gorse, dwarf (<i>Ulex minor</i>)				Wayfaring tree (<i>Viburnum lantana</i>)			
Gorse, western (<i>Ulex gallii</i>)				Whitebeam (<i>Sorbus</i> species)			
Guelder rose (<i>Viburnum opulus</i>)				Willow (<i>Salix</i> species)			
Hawthorn (<i>Crataegus monogyna</i>)	80	20		Yew (<i>Taxus baccata</i>)			
				Apple ssp (<i>Malus</i> spp.)		10	

Woodland Species	Section 1		Section 2		Section 3	
	Q1	Q2	Q1	Q2	Q1	Q2
Barren strawberry (<i>Potentilla sterilis</i>)						
Bluebell (<i>Hyacinthoides non-scriptus</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Broad-leaved helleborine (<i>Epipactis helleborine</i>)						
Broad buckler fern (<i>Dryopteris dilatata</i>)						
Bugle (<i>Ajuga reptans</i>)						
Common cow-wheat (<i>Melampyrum pratense</i>)						
Common dog violet (<i>Viola riviniana</i>)						
Common polypody (<i>Polypodium vulgare</i>)						
Dog's mercury (<i>Mercurialis perennis</i>)						
Early dog violet (<i>Viola reichenbachiana</i>)						
Early purple orchid (<i>Orchis mascula</i>)						
Enchanter's nightshade (<i>Circaea lutetiana</i>)						
Giant fescue (<i>Festuca gigantea</i>)						
Goldilocks buttercup (<i>Ranunculus auricomus</i>)						
Great bell-flower (<i>Campanula latifolia</i>)						
Greater wood-rush (<i>Luzula sylvatica</i>)						
Hairy brome (<i>Bromus ramosus</i>)						
Hairy woodrush (<i>Luzula pilosa</i>)						
Hard fern (<i>Blechnum spicant</i>)						
Hard shield fern (<i>Polystichum aculeatum</i>)						
Hart's tongue (<i>Asplenium scolopendrium</i>)						
Heath bedstraw (<i>Galium saxatile</i>)						
Herb paris (<i>Paris quadrifolia</i>)						
Herb-robert (<i>Geranium robertianum</i>)						
Lady fern (<i>Athyrium filix-femina</i>)						
Lords-and-ladies (<i>Arum maculatum</i>)						
Male fern (<i>Dryopteris filix-mas</i>)						
Moschatel (<i>Adoxa moschatellina</i>)						
Narrow buckler-fern (<i>Dryopteris carthusiana</i>)						
Nettle-leaved bell-flower (<i>Campanula trachelium</i>)						
Oxlip (<i>Primula elatior</i>)						
Pignut (<i>Conopodium majus</i>)						
Primrose (<i>Primula vulgaris</i>)						
Ramsons (<i>Allium ursinum</i>)						
Sanicle (<i>Sanicula europaea</i>)						
Scaly male-fern (<i>Dryopteris affinis</i>)						
Small cow-wheat (<i>Melampyrum sylvaticum</i>)						
Soft shield fern (<i>Polystichum setiferum</i>)						
Sweet violet (<i>Viola odorata</i>)						
Toothwort (<i>Lathraea squamaria</i>)						
Tormentil (<i>Potentilla erecta</i>)						
Wild strawberry (<i>Fragaria vesca</i>)						
Wood anemone (<i>Anemone nemorosa</i>)						
Wood avens/Herb bennet (<i>Geum urbanum</i>)						
Wood false-brome (<i>Brachypodium sylvaticum</i>)						
Wood horsetail (<i>Equisetum sylvaticum</i>)						
Wood meadow-grass (<i>Poa nemoralis</i>)						
Wood melick (<i>Melica uniflora</i>)						
Wood millet (<i>Millium effusum</i>)						
Wood sage (<i>Teucrium scorodonia</i>)						
Wood sedge (<i>Carex sylvatica</i>)						
Wood sorrel (<i>Oxalis acetosella</i>)						
Wood speedwell (<i>Veronica montana</i>)						
Wood spurge (<i>Euphorbia amygdaloides</i>)						
Woodruff (<i>Galium odoratum</i>)						
Yellow archangel (<i>Lamium galeobdolon</i>)						
Yellow pimpernel (<i>Lysimachia nemorum</i>)						

Hedgerow Survey Record			
Project Code	22941	Surveyor name	Rosie Hall
Client	Graingers Plc	Date	13/08/2011
Hedge Reference	18	OS Grid Reference	
Photo no.		Length (m)	140

Hedgerow criteria					
Hedge >20m	X	Not		Hedge has been in	
<20m but junctions at both ends		curtilage of residential	X	existence for 30 years	X

Hedgerow Summary	
Average height of vegetation (m)	10
Average width of vegetation (m)	4
Side surveyed	N

Hedgerow type	
Shrubby hedgerow	
Line of trees	X
Shrubby with line of trees	

Hedgerow shape			
Trimmed and dense		Untrimmed	X
Untrimmed with outgrowth		Recently coppiced	
Intensively managed		Tall & leggy	X
Recently laid		Other	
Hedgerow base management:		None	

Adjacent land use / management					
Arable- crop		River/stream		Road (Major/ Minor)	
Arable- uncropped margin		Lake/Pond		Canal	
Semi-Improved grassland		Unimproved grass		Improved grass	X
Semi-mature woodland		Mature woodland		Woodland- young	
Track/footpath/bridleway	X	Rail		Other	

Woody species							
	<30m	>30m<100m	>100m<200m		>200m		
Number of woody species ¹			5	6			
Black poplar/ lime/ service							

Associated Features							
Bank or wall (inc height) ³	X	Parellel hedge (within 15m)		X	Number of connections to ²	Hedges	
Ditch (wet)		Gap as % of length	20	%		Woodland	
Ditch (dry)		At least 3 woodland species within 1m of hedge				Ponds	
No. of standard trees/ 50m	7						

Veteran Tree	Yes				
Dead wood attached to the tree, any piece more than 1m long and 8cm in diameter	X	Hollow trunks or hollow major limbs			
Tears, splits, scars, lightning strikes more than 30cm long	X	Bark sap runs			
Loose split, missing and dead bark, any piece more than 30cm long		Major rot sites any more than 15cm across			

Protected species	
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Comments (including limitations and protected species)
Parellel to hedge 17. Hedge between bridleway and school

Notes

¹If hedge <30m- count woody sp along entire length. If >30m>100m count woody species in central 30m section. If hedge >100m<200m divide hedge into two and count woody species in central 30m section for each half. If hedge >200m divide hedge into 3 and count woody species in central 30m section for each third

²Connections within 10m in line with hedge

³Along at least half length of hedgerow

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