

127A AND 127B LONDON ROAD, WATERLOOVILLE, HAMPSHIRE,

BIODIVERSITY ENHANCEMENT STRATEGY

Final Document

September 2015

Phase 1 and 2 Ecological Assessments • NVC • EcIA • Management Plans • Protected Species Licensing
Habitats • Badger • Bats • Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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APPENDICES

Appendix 1 Soft Landscape Proposals CSa/2429/100

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1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been contracted by Planning Issues Limited on behalf of their client Churchill Retirement Living to prepare a Biodiversity Enhancement Strategy (BES) for land at 127a and 127b London Road, Waterlooville, Hampshire, P07 7TL. The site is centred on National Grid Reference (NGR) SU683095.

ECOSA undertook an extended Phase 1 ecological assessment followed by Phase 2 bat surveys between September and early October 2014. The surveys were undertaken to ascertain the potential for protected habitats and species to be present within the site. The Phase 1 survey identified a number of features with low potential to support roosting bats, although no evidence of bats was found. The Phase 2 surveys recorded no bat emergences or re-entries and roosting bats are considered currently absent from the site. Low levels of foraging and commuting activity were recorded around the properties.

A Biodiversity Enhancement Strategy is required to discharge planning condition 20 of the recently granted planning permission for the redevelopment of 127a and 127b London Road, Waterlooville:

'No development other than the demolition of the existing buildings shall commence until details of the measures including replacement habitat such as log piles to mitigate the impacts on ecology have been submitted and approved in writing by the local planning authority. The development shall not be occupied until the approved details has been implemented unless otherwise agreed in writing by the Local Planning Authority.'

This report provides details of the ecological mitigation and enhancement measures that will be implemented on site to maintain and enhance the biodiversity of the site.

1.2 Site Setting

127a and 127b London Road is situated in the South Coast Plain and Hampshire Lowlands Natural Area, described by Natural England as follows¹:

"The landscape of the South Coast Plain and Hampshire Lowlands is split between the generally open, often featureless landscape of the coastal plain and the more varied

¹ Natural Areas are defined by Her Majesty's Stationery Office as 'biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England, and provide a framework for setting objectives for nature conservation' (Biodiversity: The UK Steering Group Report, HMSO, 1995).

landscape in the west. The Natural Area contains a number of nature conservation features. Although relatively small in extent, the south-facing slopes of Portsdown Hill support some high quality chalk grassland, and the chalk rivers of the Itchen and Test flow through the Natural Area, supporting fine examples of threatened habitat and several key species. The floodplains of the Rivers Test and Itchen contain some botanically rich neutral grassland and elsewhere in the Natural Area fen and fen-meadows occur, especially where chalk springs arise at the foot of the downs."

The site is situated within the town of Waterlooville in Hampshire. The site is approximately 6km north of the city of Portsmouth and 4km northwest of the town of Havant. The site is located within an urban environment with a dual carriageway to the south and east, terraced housing to the north and industrial/commercial units to the west.

The site itself comprises two detached houses with associated gardens with mature shrub and tree borders. A small area of secondary broadleaved woodland is located to the west of the site.

1.3 Site Proposals

The proposed works entail the demolition of the two existing buildings on site followed by the construction of new sheltered accommodation together with associated parking and access. The new building will be a three storey structure divided into four x one bed apartments and two x two bed apartments. Drawing 144_PP_300 in **Appendix 1** shows the outline of the proposed development together with proposed landscaping. The majority of mature boundary vegetation will be retained with the exception of a number of mature poplar *Populus* species trees along the northwest boundary. Hedgerow and shrub vegetation which currently forms the boundary between the two properties will be removed.

2.0 PRE-DEVELOPMENT SITE DESCRIPTION

2.1 Vegetation Communities

The on-site vegetation is of low ecological value as all species identified on site are widespread and abundant and typical of managed garden habitats. The majority of the vegetation comprises managed amenity grassland. This short mown lawn comprises creeping bent *Agrostis stolonifera*, red fescue *Festuca rubra* and perennial rye *Lolium perenne* together with occasional herbs including herb Robert *Geranium robertianum* and common ragwort *Senecio jacobaea*. The close-mown lawn is bordered by a mixture of native and ornamental shrubs including cotoneaster *Cotoneaster* sp., hazel *Corylus avellana* and rhododendron *Rhododendron ferrugineum*. The two gardens are divided by a low, managed hedgerow comprising a mix of native and ornamental shrubs including cherry laurel *Prunus laurocerasus*, Leyland cypress x *Cupressocyparis leylandii*, ash *Fraxinus excelsior*, yew *Taxus baccata*, and dogwood *Cornus sanguinea*. The garden of 127a contains two semi-mature beech *Fagus sylvatica* trees. In addition there are a number of trees within the shrub borders of the two properties including sycamore *Acer pseudoplatanus*, hazel and eucalyptus *Eucalyptus* species. The northwest boundary of the site comprises an overgrown hedgerow/line of trees including Leyland cypress and mature poplar trees.

2.2 Protected Species

The extended Phase 1 and Phase 2 surveys undertaken by ECOSA in 2014 provided an assessment of the site's suitability for protected species. The findings are summarised below.

2.2.1 Bats

During the Phase 1 survey no evidence of bats or bat activity such as droppings or urine staining was recorded externally or internally. A small number of potential bat roosting features including gaps under roof tiles and gaps under weatherboarding were located externally on 127a and 127b, providing potential access/egress points. These features were assessed as having a low potential to support roosting bats.

During the Phase 2 survey no emergences or re-entries were recorded, indicating that the building is not currently used by roosting bats. Low levels of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, *Myotis* species² and long-eared

² There are seven species of *Myotis* bats in Britain. *Myotis* bats are very difficult to identify specifically, this can generally only be done by examination of physical features and Phylogenetic Analysis Identification of bat droppings. Many of these bats are common and will utilise buildings for roosting often occupying small and inaccessible voids. For the purpose of this report all species shall be referred to as *Myotis* bats unless a specific identification has been possible.

Plecotus species³ activity was recorded foraging and interacting with the site close to the property and boundary vegetation adjacent; however the vast majority appeared to be foraging briefly before passing through the site or at height. Given the small size of the site it is not considered to form a primary resource for foraging bats in the local area.

2.2.2 *Badger*

No evidence of badger was found during the survey. The mature trees and shrubs which are located along the boundary of the site provide suitable habitat for badger and the amenity grassland provides potential foraging habitat. The wider area is largely developed with little green space. However, there is a small area of broadleaved woodland immediately to the west of the site which provides a small area of suitable, all be it isolated, badger habitat. Given the largely urban nature of the local area and limited amount of suitable habitat, overall the site is considered to offer **low potential** for supporting foraging/commuting badgers and **low potential** for resident badgers.

2.2.3 *Breeding Birds*

The trees and shrubs within the gardens of the site provide nesting and foraging opportunities for a range of common garden birds and robin *Erithacus rubecula* and great tit *Parus major* were recorded on site during the phase 1 survey. Overall the site is considered to have a **medium potential** to support low numbers of common nesting birds.

2.2.4 *Terrestrial Invertebrates*

The areas of managed grassland together with a mix of native and ornamental trees and shrubs provide habitat which is likely to support a low diversity of common and widespread invertebrate species. The site does not comprise any habitats which are likely to support important or rare invertebrate assemblages. Overall the site is considered to be of low value for invertebrates.

2.2.5 *Other Species*

There is negligible potential for the site to support dormouse due the small amount of suitable habitat on site that lacks the diversity of species and size of habitat needed to support a dormouse population. Additionally, the wider lacks any areas of suitable habitat such as blocks of woodland and mature hedgerow networks.

³ There are two species of long-eared bat, the brown long-eared bat *Plecotus auritus* and the grey long-eared bat *Plecotus austriacus*. These species can only be separated by examination of physical characteristics and Phylogenetic Analysis Identification of bat droppings. Unless confirmation of identification has been made by visual identification the two species shall be referred to in this report as long-eared bat. The brown long-eared bat is the commonest of the two species typically being found roosting within large roof voids although small voids and trees are also utilised. The grey long-eared bat is rare and confined to southern England and like the brown long-eared typically roosts in roof voids.

The well managed gardens of 127a and 127b London Road offer limited potential for reptiles with few features suitable for foraging and basking reptiles. Overall the site is considered to have a negligible potential to support common reptiles.

A review of the 1:10,000 ordnance survey map identified no ponds or other suitable aquatic features within 500m of the site. Due to the lack of suitable breeding habitat within 500m, the site is considered to have a negligible potential to support great crested newt.

No invasive species were recorded on site.

3.0 ECOLOGICAL MITIGATION AND ENHANCEMENT STRATEGY

3.1 Introduction

This section provides details of the aims and objectives of the 127a and 127b London Road Biodiversity Enhancement Strategy and detailed prescriptions for achieving those objectives.

3.2 Aims and Objectives

The aims of the mitigation and enhancement strategy are as follows:

1. Protect and mitigate to prevent harm to protected fauna species that may use the site; and
2. Where possible, enhance the ecological value of the site.

The objective of the strategy for the site is:

1. To provide a deliverable long-term strategy for maintaining and/or enhancing the site's suitability for protected species;
2. Enhance the flora of the site to provide a long-term nectar source for a wide variety of invertebrates and increase habitat suitability for foraging bats and birds; and,
3. Provide long-term habitat features including nesting and roosting sites for bats, birds and invertebrates.

3.3 Vegetation

3.3.1 Pre-development Summary

The site contains no vegetation communities of particular ecological value. The managed gardens are comprised of common and widespread species typical of suburban habitats.

3.3.2 Mitigation and Enhancement

The enhancement strategy is based on incorporating native wildflower lawns into areas of amenity grassland as shown on the Soft Landscape Proposals Drawing 144_PP_300 (**Appendix 1**).

Wildflower Lawns

Areas of amenity grassland will be created using a Flowering Lawn Mixture (EL1 – Emorsgate Seeds) or a similar wild flower turf, which includes a diverse mix of native species of grasses and flowering plants. This variety of flowering plants will create a diverse habitat with abundant nectar sources for a range of invertebrates such as butterflies, bees, hoverflies and other insects, which in turn provide foraging resources for bats and birds.

The species within this mix are shown below:

- Lady's bedstraw *Galium verum*;
- Rough hawkbit *Leontodon hispidus*;
- Oxeye daisy *Leucanthemum vulgare*;
- Common bird's-foot trefoil *Lotus corniculatus*;
- Cowslip *Primula veris*;
- Selfheal *Prunella vulgaris*;
- Meadow buttercup *Ranunculus acris*;
- Common sorrel *Rumex acetosa*;
- Red clover *Trifolium pratense*;
- Common bent *Agrostis capillaris*
- Crested dog's-tail *Cynosurus cristatus*
- Slender-creeping *Red-fescue*
- Smaller Cat's-tail *Phleum bertolonii*

3.3.3 Management Measures

To maximise the ecological benefit of the areas of wildflower lawns, these areas should be cut once a year in late August/September for maximum floristic diversity. More regularly cut paths could be created within the grassland to provide access for the residents.

3.4 Bats

3.4.1 Pre-development Summary

Phase 2 surveys confirmed the presence up to four species of bats foraging and passing through the site. No bats were found to be roosting in the existing buildings.

3.4.2 Mitigation and Enhancement

The development will result in a slight reduction in the amount of available foraging habitat, although the majority of the boundary habitats, which are the best features for this purpose, are to be retained. There will be increased lighting and human presence post-development which could result in minor disturbance to foraging bats. To mitigate for these minor impacts on bats and to enhance the site for roosting bats, the following measures will be implemented:

- Two Schwegler 1FF bat boxes will be erected on retained mature trees located on the northern boundary of the site. These boxes will remain in-situ in perpetuity. These bat boxes will provide long-term roosting sites for a range of bat species in the local area.

An example of a Schwegler 1FF bat box to be erected at the site is shown in **Figure 1**.



Figure 1: Schwegler 1FF bat boxes to be erected on mature trees at the site

- A total of four Schwegler 2FE Wall Mounted Bat Shelters will be installed on the external walls of the new building. These will be installed a minimum of 3m high on the southern and western aspects of the new building and will provide suitable summer roost sites for a range of bat species.
- All bat mitigation infrastructure will be inspected in the first year post development to ensure a good state of repair, and to remove accumulations of debris.
- Proposed external illumination will be designed to minimise light spill and ultra violet (UV) light due to its increased disturbance of invertebrates and bats. Where possible, lighting will be restricted to motion activated, low level luminaire lighting using low UV LED bulbs at the warmer end of the colour spectrum. This will avoid direct lighting impacts on bats such as disturbance of foraging and commuting, and indirect impacts via the disturbance of prey species such as moths. Illumination of new bat roosting features will be avoided and illumination of boundary vegetation will be minimised.

Further guidance on task related lighting levels published by the Chartered Institution of Building Services Engineers (CIBSE)^{4,5} will be consulted.

- The use of native and wildlife friendly species in the landscape proposals will help maintain suitable bat foraging.

3.5 Nesting Birds

3.5.1 Pre-development Summary

The site contained a range of scrub, trees and shrub habitat likely to support a small number of foraging and breeding birds. No suitable nesting sites were identified on the existing buildings.

3.5.2 Mitigation and Enhancement

To prevent any disturbance of nesting birds, where possible, any removal of trees or scrub will be undertaken outside of the main bird nesting season which extends from March to August, inclusive. Should such works be necessary within this time period, then the site should be inspected by a suitably qualified ecologist immediately prior to works commencing. Any active nests identified and a suitable buffer will need to be left undisturbed until the nesting cycle has concluded naturally.

Two Schwegler 1B and two Schwegler 3SV bird nest boxes will be installed within retained trees and shrubs around the site to provide replacement nesting opportunities for a range of garden bird species likely to occur on site. (**Figure 2** and **Figure 3**). The 3SV nest box has protection against predators such as domestic cats, which are likely to be frequent in this suburban location.



Figure 2: Schwegler 1B nest box



Figure 3: Schwegler 3SV nest box

⁴ CIBSE (1992) *Lighting Guide 6: The Outdoor Environment*; CIBSE (2002) *Code for Lighting*, Butterworth-Heinemann, UK.

⁵ *Wildlife and Artificial Lighting Seminar*, 21st – 22nd March 2014, Arup London, Bat Conservation Trust.

Recommendations set out in **Paragraph 3.4.2** regarding methods for preventing light spillage onto boundary features for bats should also be beneficial to breeding birds by reducing disturbance through light pollution.

3.5.3 Management Measures

To prevent the build-up of nesting material and associated parasites within the nest boxes, the boxes will be cleaned out once a year between October and February with all old nesting material removed.

3.6 Terrestrial Invertebrates

3.6.1 Pre-development Summary

The areas of managed grassland together with a mix of native and ornamental trees and shrubs provide habitat which is likely to support a moderate diversity of common and widespread invertebrate species. The site does not comprise any habitats which are likely to support important or rare invertebrate assemblages. Overall the site is considered to be of low value for invertebrates.

3.6.2 Mitigation and Enhancement

To enhance the site for other terrestrial invertebrates, two Schwegler reed and clay insect nest boxes (**Figure 6**) will be installed within south or west facing landscaped borders of the site.



Figure 4: Schwegler clay and reed insect nest box

Additionally, where mature trees or shrubs are removed to facilitate the development, selected arisings will be used to create one log pile within the western corner of the site. This will be located within the shrub border. All deadwood arisings will be incorporated into the log pile. The log pile will be a minimum of 3m³.

4.0 CONCLUSIONS

The implementation of this Biodiversity Enhancement Strategy will ensure that the development does not have an adverse impact on local biodiversity and the enhancement measures will create new habitats for a range of species including bats, birds and invertebrates.

Appendix 1 Soft Landscape Proposals CSa/2429/100

General landscaping

Existing levels to be preserved around retained existing trees and vegetation. Existing trees and vegetation to be retained are to be protected in accordance with BS5837 during construction. All landscape works to be undertaken by competent persons, with appropriate training and equipment.

Services

The contractor must ascertain for themselves the exact location of underground services before commencing work.

Topsoil

Topsoil to be handled (i.e. excavated and/or imported, stored, spread, cultivated) in accordance with method agreed in writing by Landscape Architect prior to work commencing. Amelioration to be as determined by analysis. If poor drainage is suspected in existing soil surfaces, these should be broken up prior to planting, turfing and seedling to a depth of 300mm to remove likelihood of compaction and damage to new planting and turf. Where topsoil is to be imported, soil medium parameters to be within the following:

Soil texture:	sand 20-75%
	silt 5-60%
	clay 5-30%
Maximum stone size in any direction:	50mm
pH:	5.5 - 7.8
Electrical conductivity:	100-900 uS/cm
Organic matter:	> 4%
Nitrogen:	> 0.2%
Phosphorus:	> 26 mg/l
Potassium:	> 240 mg/l
Magnesium:	>50 mg/l

Imported topsoil to be a good quality loam to BS 3882 or manufactured topsoil. All topsoil areas shall be thoroughly cultivated by hand or suitable machinery to the full depth of the topsoil layer, incorporating ariolant as specified and/or as indicated by analysis and in accordance with BS 3882. Hand cultivations shall be carried out to achieve the required finish on areas where machine cultivation is impossible ie adjacent to kerbs, manholes and footpath junctions etc. Surplus plant matter, rubbish and surface stones having any dimension greater than 25 mm shall be collected and removed from the site. Existing topsoil to be stripped and re-used if suitable as per specification. Topsoil is to be stored in heaps, maximum of 4m in height, providing soil is reasonably dry and friable during stripping and handling - using a tracked excavator. To protect from wet weather once final height is achieved, an excavator should regrade the sides and top of stockpile to firm surface by tracking across it to form a smooth gradient.

Fertilizer/Compost

Approved (peat free) composts to PAS100 and fertilizers to be added during cultivation as required to full depth of growing medium.

Plant Handling

Plant handling at the nursery, and during transit up to delivery, shall be in accordance with 'Plant Handling', the booklet published by the Committee for Plant Supply and Establishment (CPSE). The contractor shall comply with clauses 3 & 4 of the above booklet (obtained from the Horticulture Trades Association, 19 High Street, Theale, Reading, Berks RG7 5H) which refers to the receipt, unloading and temporary storage of plants. General plant stock to conform to BS 3936, advanced nursery stock to BS 6236, and planting to BS 4428. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged (refer to relevant sections of BS3936 Parts 1-4 'Specification of Nursery Stock'). All planting operations to be in general compliance with BS4428: 1989 'Code of Practice for general landscape operations (excluding hard surfaces)'. Carry out all planting while soil and weather conditions are suitable:

- Do not plant during periods of frost or strong winds. Plant only during the following periods
- Deciduous and conifer trees: Late October to late March
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided
- Bulbs: September/October

Setting-out of planting beds to be approved by Landscape Architect before work commences. Ensure that plant beds are neatly defined, and rise from adjacent paved areas. All ornamental planting areas to be mulched with 75mm (settled depth) bark mulch. Sample of mulch to be approved by Landscape Architect. Topsoil depth to be 300mm for planting and 150mm for grass.

Trees

Trees shown on plan to be planted with species as labelled or similar approved. All trees to be planted in pits 1m x 1m x 0.9m deep backfilled with 500mm depth 80% clean topsoil and 20% approved green compost to PAS100 and 100 gms granular fertilizer, over 400mm washed medium coarse grade sand bed to base of pit. Water-in heavily after planting and surface mulched 75mm depth. Unless noted above as requiring underground geying, all trees to be double staked and tied and multi stems diagonal single stake. Sample of staking for each species to be approved. Tree stakes to be stained black. Any necessary tree works are to be carried out by an approved tree surgeon to BS 3998. Trees planted in grass lawn to be set in bare earth circles, 1m diameter around tree trunk, with turf trimmed neatly to form circle, and earth mulched with approved bark mulch to 75mm depth after planting.

Shrub Herbaceous & Ground Cover Planting

All plants to be planted in cultivated planting beds at densities shown in plant schedule, in pits of min. size 0.3m x 0.3m x 0.3m deep so as to accommodate full root spread, backfilled with 80% clean topsoil and 20% approved green compost to PAS100 and 20 gms granular fertilizer. All shrub beds to be in min. 300mm good quality, well prepared topsoil and to be mulched with 75mm depth approved bark mulch after planting.

Climbers

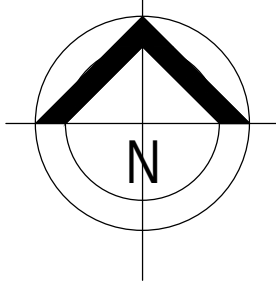
All climbers to be planted in pit of min. size 0.4m x 0.4m x 0.4m deep so as to accommodate full root spread, backfilled with 80% clean topsoil and 20% approved green compost to PAS100 and 20 gms granular fertilizer. Cut semicircular bed against fence of 0.5m radius and mulch with 75mm depth approved bark mulch after planting. All plants to be planted with trellis/cane supports in situ and trained to adjacent wall or fence with steel wires provided where climbers in 3 horizontal rows.

Grass/Turf

Turfing and seeding shall be carried out only during appropriate seasons and while soil and weather conditions are suitable for the relevant operations. Only machinery and tools suitable for the site conditions and the work to be carried out shall be used. Hand tools shall be used around trees, plants and in confined spaces where it is impractical to use machinery. The soil shall be weed free prior to turfing and seeding. Contact herbicide as specified should be applied to all areas of weed growth 4-6 weeks before grassing and repeated if necessary to maintain a weed free bed. Where deep rooted weeds are present (docks, thistles etc.) approved Glyphosate-based herbicide should be applied as a spot treatment. Turf shall be laid on prepared, levelled soil (minimum 150mm depth) in the areas indicated on the drawings in accordance with BS 4428:1989. All grass areas to be approved landscape quality turf for external areas and lawn turf for internal garden areas, or equivalent seed.

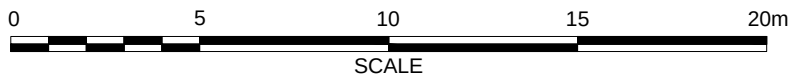
Maintenance

Establishment maintenance for all planting for 5 years from Practical Completion (first year to be carried out by installing contractor) to include weed control, watering and replacement of failures to original specification in the planting season following failure. All plant material to receive annual pruning and hedges and groundcover to be trained and edged with minimum 2 trims per year. All plant material to receive annual pruning and groundcover to be trained and edged with minimum 2 trims per year. Mowing is to be carried out using approved machinery to maintain the vegetation length within the limits of 30 mm and 50 mm during April to August inclusive and between 50 mm and 70 mm during the rest of the year.



LEGEND

	Existing trees to be retained
	Existing trees to be removed
	Planting bed
	Amenity grass
	Pyrus calleryana 'Chanticleer' 18-20cm girth
	Betula utilis jacquemontii 18-20cm girth
	Clematis 'Etoile de France'
	Rosa 'Teasing Georgia'



Stock	Quantity	Item	Size	Height (cm)	Notes	Density/m2
Trees						
3		Betula utilis jacquemontii	18-20 Girth	450+	3x standard (extra-heavy) clear stem 200+	RB Counted
6		Pyrus x calleryana 'Chanticleer'	18-20 Girth	450+	3x standard (extra-heavy) clear stem 200+	RB Counted
9						
Shrubs						
26		Aucuba japonica 'Crotonifolia'	2L	20-30	Bushy, min. 3 break	C 3m2
9		Ceanothus 'Blue Mound'	2L	20-30	Bushy, min. 4 breaks	C 3m2
7		Ceanothus 'Gloire de Versailles'	2L	20-30	Leader with 3 laterals	C 3m2
5		Ceanothus impressus	2L	20-30	Bushy, min. 4 breaks	C 3m2
9		Chaenomeles japonica	2L	20-30	Bushy, min. 2 breaks	C 3m2
8		Choisya 'Aztec Pearl'	2L	20-30	Bushy, min. 5 break	C 3m2
12		Choisya ternata	2L	20-30	Bushy, min. 5 breaks	C 3m2
12		Cistus x pulverulentus 'Sunset'	2L	15-20	Bushy, min. 4 breaks	C 3m2
13		Cistus 'Silver Pink'	2L	20-30		C 3m2
5		Cotinus coggygria 'Royal Purple'	3L	30-40	Branched, min. 3 breaks	C 3m2
7		Deutzia x magnifica 'Staphyleoides'	2L	30-40	Branched min. 3 breaks	C 3m2
9		Deutzia x rosea	2L	30-40	Branched min. 3 breaks	C 3m2
24		Eleagnus x ebbingei	2L	30-40	Branched, min. 3 break	C 3m2
7		Escallonia 'Apple Blossom'	2L	30-40	Branched min. 3 breaks	C 3m2
11		Escallonia 'Donard Seedling'	2L	30-40	Branched min. 3 breaks	C 3m2
14		Euonymus fortunei 'Silver Queen'	2L	20-30	Bushy, min. 5 breaks	C 3m2
9		Hebe 'E. A. Bowles'	2L	20-30	Bushy, min. 3 breaks	C 3m2
3		Hebe x franciscana 'Blue Gem'	2L	20-30	Bushy, min. 3 breaks	C 3m2
13		Hydrangea arborescens 'Grandiflora'	2L	30-40	Branched min. 3 breaks	C 3m2
23		Hydrangea quercifolia 'Snowflake'	2L	30-40	Branched min. 3 breaks	C 3m2
11		Hypericum calycinum	2L	20-30	Bushy, min. 5 breaks	C 3m2
9		Ilex aquifolium 'J.C. Van Tol'	3L	40-60	Leader with laterals	C 3m2
25		Lavandula angustifolia 'Hidcote'	2L	20-30	Bushy, min. 3 breaks	C 3m2
21		Lavandula 'Grappenhall'	2L	20-30	Bushy, min. 3 breaks	C 3m2
16		Malva aquifolium 'Apollo'	2L	30-40	Branched min. 3 breaks	C 3m2
32		Osmanthus burkwoodii	3L	30-40		C 3m2
11		Osmanthus heterophyllus 'Aureomarginatus'	2L	20-30	Bushy, min. 3 breaks	C 3m2
7		Philadelphus coronarius 'Aureus'	2L	20-30	Branched, min. 3 break	C 3m2
14		Philadelphus 'Lemoinei'	2L	30-40	Branched, min. 3 breaks	C 3m2
9		Pittosporum tenuifolium 'Silver Queen'	2L	20-30	Bushy, min. 3 breaks	C 3m2
14		Pyracantha coccinea	2L	20-30	Leader with laterals, min. 3 breaks	C 3m2
7		Pyracantha 'Orange Glow'	2L	40-60	Leader with 3 laterals, min. 2 breaks	C 3m2
10		Rosmarinus officinalis 'Miss Jessop's Upright'	2L	20-30	Bushy, min. 3 breaks	C 3m2
10		Sarcococca confusa	2L	20-30	Bushy, min. 4 breaks	C 3m2
16		Skimmia x confusa 'Kew Green'	2L	20-30	Bushy, min. 3 breaks	C 3m2
13		Skimmia japonica 'Fructo-albo'	2L	20-30	Bushy, min. 3 breaks	C 3m2
7		Viburnum x bodnantense 'Dawn'	2L	20-30	Branched, min 3 breaks	C 3m2
7		Viburnum davidii	2L	20-30	Bushy, min. 2 breaks	C 3m2
39		Viburnum tinus 'Eve Price'	2L	20-30	Bushy, min. 3 breaks	C 3m2
18		Viburnum plicatum	2L	20-30	Bushy, min. 3 breaks	C 3m2
5		Weigela 'Bristol Ruby'	2L	30-40	Bushy, min. 3 breaks	C 3m2
5		Weigela florida 'Variegata'	2L	30-40	Branched, min. 3 breaks	C 3m2
532						
Ground Cover						
7		Coloneaster dammeri	1L			C 3m2
22		Euonymus fortunei 'Emerald Gaiety'	1L			C 3m2
9		Euonymus fortunei 'Emerald 'n' Gold'	1L			C 3m2
9		Hebe rakaiensis	1L			C 3m2
9		Hedera helix 'Buttercup'	1L			C 3m2
9		Hedera helix 'Glacier'	1L			C 3m2
16		Hedera helix 'Gold Child'	1L			C 3m2
11		Hedera helix 'Green Ripple'	1L			C 3m2
18		Hedera helix 'Manda's Crested'	1L			C 3m2
9		Lonicera pileata	1L			C 3m2
29		Pachyandra terminalis	1L			C 3m2
20		Vinca minor 'Gertrude Jekyll'	1L			C 5m2
168						
Herbaceous						
5		Acanthus spinosus	2L			C 3m2
12		Achillea 'Terracotta'	2L			C 3m2
10		Agapanthus 'Headbourne Hybrids'	2L			C 3m2
23		Alchemilla mollis	2L			C 3m2
5		Anemone x hybrida 'Honorine Jobert'	2L			C 3m2
10		Athyrium filix-femina	2L			C 3m2
7		Bergenia 'Silverlight'	2L			C 3m2
15		Caryopteris x clandonensis 'Arthur Simmonds'	2L			C 3m2
20		Epimedium versicolor 'Sulphureum'	2L			C 3m2
7		Euphorbia amygdaloides 'Purpurea'	2L			C 3m2
17		Euphorbia characias wulfenii	2L			C 3m2
18		Geranium 'Johnson's Blue'	2L			C 3m2
24		Geranium macrorrhizum 'Album'	2L			C 3m2
14		Geranium renardii	2L			C 3m2
7		Helenium 'Moerheim Beauty'	2L			C 3m2
7		Helleborus orientalis	2L			C 3m2
5		Hemerocallis 'Corky'	2L			C 3m2
9		Heuchera micrantha 'Palace Purple'	2L			C 3m2
9		Liriope muscari	2L			C 3m2
10		Nepeta x faassenii 'Six Hills Giant'	2L			C 3m2
7		Penstemon 'Sour Grapes'	2L			C 3m2
7		Perovskia atriplicifolia 'Blue Spire'	2L			C 3m2
12		Polygonatum x hybridum	2L			C 3m2
16		Polystichum setiferum	2L			C 3m2
23		Salvia officinalis 'Purpurascens'	2L			C 3m2
5		Stachys byzantina	2L			C 3m2
11		Tiarella cordifolia	2L			C 3m2
315						
Climbers						
2		Clematis 'Etoile de France'	2L	60-80	Several shoots, 2 breaks, cane supports	C Counted
2		Rosa 'Teasing Georgia'	2L	60-80	Several shoots, 2 breaks	C Counted
4						
Turf						
329m2		Supply and install good quality amenity turf				

REV	DATE	COMMENTS	SW	CHK	APP
1		5/20/2015 The house path and planting amended			



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PROJECT: WATERLOOVILLE

TITLE: PLANTING PLAN

CLIENT: CHURCHILL RETIREMENT LIVING

SCALE: 1:200@A1 DATE: 02/07/2015

JOB NO: 144 DWG NO: 144_PP_300

STATUS: PLANNING REV: A